CUSTOMER SERVICE SATISFACTION ANALYSIS FOR AN E-COMMERCE PLATFORM

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By: -

Project Number IV

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Executive Summary

This report analyses customer service satisfaction data from an e-commerce platform (Shopzilla) with 85,000+ service records. Using CSAT scores and support metrics (like response time, agent handling, channel type), this analysis identifies key patterns impacting satisfaction and recommends targeted interventions.

Business Context

In the competitive e-commerce industry, customer service quality directly affects retention, brand perception, and repeat sales. This project investigates satisfaction scores and operational data to uncover improvement areas.

Key Stakeholders

- Customer Service Manager: Needs visibility into team performance and areas to upskill agents.
- CX (Customer Experience) Team: Seeks to understand the biggest pain point for customers.
- Operations/HR Team: Requires data to support performance-based promotions and training.
- Senior Leadership: Looks for trends affecting long-term customer loyalty and revenue.

Objective

To identify:

- The primary drivers of low and high CSAT scores.
- Who are the top and bottom performers in service quality.
- Which processes (like slow handling or issue category) reduce satisfaction.
- Where operational changes can lead to measurable CSAT improvements.

Dataset Overview

- Total Records: 85,908
- Time Period: One-month snapshot
- Key Fields:
    a. CSAT Score (1-5)
    b. Agent Name, Supervisor, Manager
    c. Channel Name (Inbound / Outcall / Email)
    d. Shift (Morning / Evening / Night / Afternoon / Split)
    e. Issue Reported/Resolved Time
    f. Category and Sub-Category
    g. Customer Remarks

Methodology

- Data cleaned and organized in Excel
- Pivot tables and Power BI visuals used for:

- CSAT categorized as:
    - 1–2 = Negative
    - 3 = Neutral
    - 4–5 = Positive

Key Findings

Positive Patterns:

- Inbound Calls show significantly higher CSAT Count than Email and Inbound Calls.
- Agents on Split Shift perform better overall.
- Certain agents have average CSAT above 4.8 – value for internal benchmarking and mentoring.

Problem Areas:

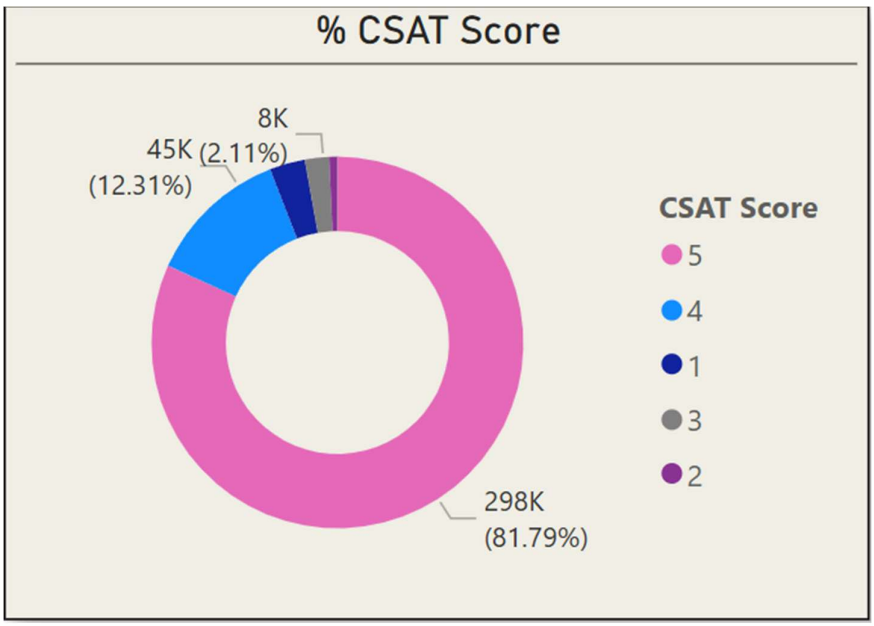
- Cancellation, Product Queries and Order-related issues have the most negative feedback.
- Morning Shift responses had relatively lower CSAT.
- Managers have the lowest Average CSAT Score compared to Supervisors and Agents.

Root Cause Analysis

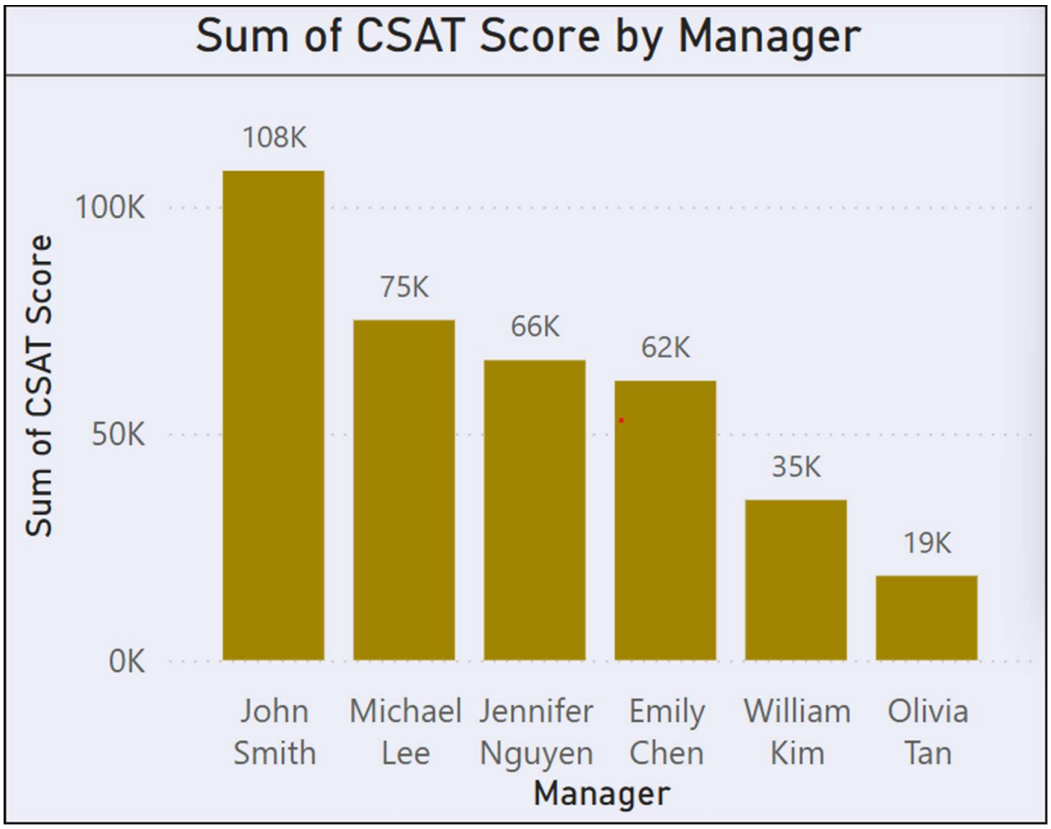
Issue Identifies	Root Cause Hypothesis	Supporting Data/Observation
Low CSAT in “Product Queries” category	Complex resolution policy, repeat calls	Higher ticket durations and more remarks in this category
Poor Morning Shift Performance	Understaffed or less experienced agents	Lower average CSAT
Lower CSAT Score from Managers	Lack of feedback loops or skill gaps	Wide CSAT variance between managers and inconsistent performance

Visual Summary (included in Power BI and Excel)

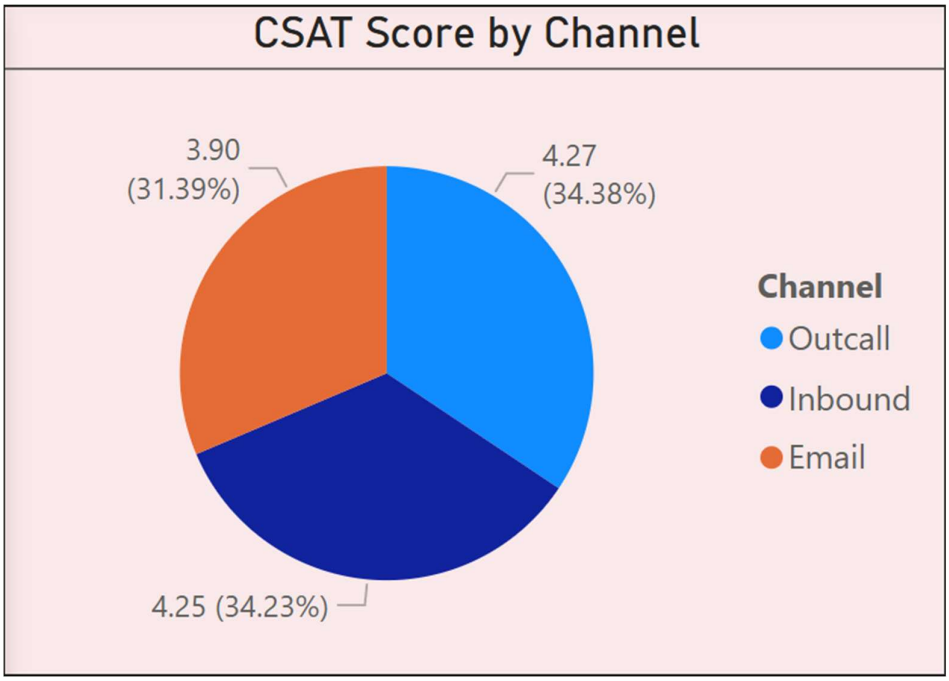
1. Doughnut Chart for CSAT Score Distribution



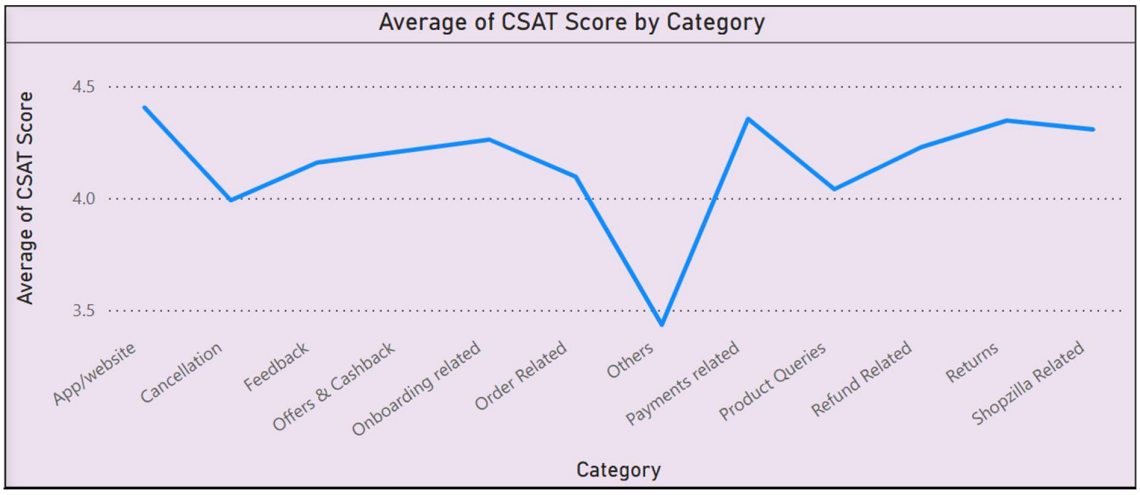
2. Column Chart for Sum of CSAT Score by Manager



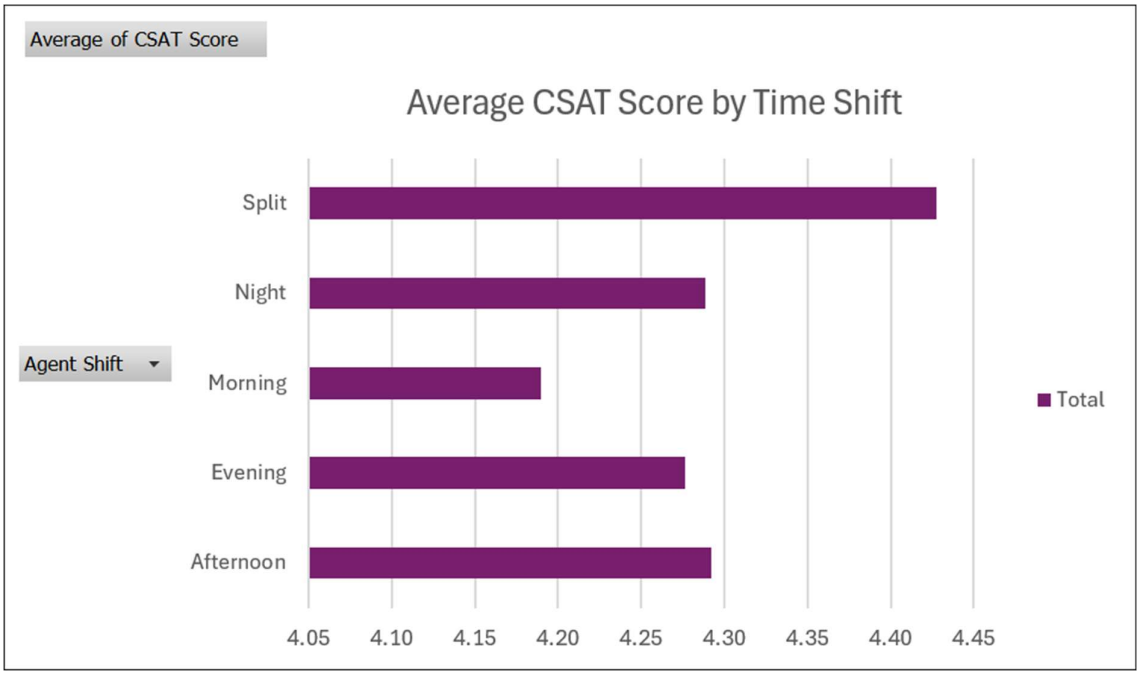
3. Pie Chart for CSAT Score by Channel



4. Line Chart for Avg. SCAT Score by Category



5. Bar Chart for Avg. CSAT Score by Time Shift



Recommendations

1. Manager Training:
   Prioritize support skill workshops for categories with low CSAT (e.g., Returns, Payment Issues).
2. Shift Scheduling Optimization:
   Rebalance agent distribution between morning and evening based on performance.
3. Mentoring from Top Performers:
   Use high-performing agents as internal trainers or assign difficult tickets to them.
4. Monitor High-Risk Categories Weekly:
   Track “Negative Sentiment” causes by category and escalate to supervisors.
5. Targeted Process Redesign:
   Simplify the product queries and cancellation process – backed by feedback volume and CSAT scores.

Business Impact

If implemented, these recommendations can lead to:

- 10%–15% improvement in CSAT within 1–2 months
- 20% reduction in negative reviews or churn due to poor service
- Enhanced customer loyalty and brand value

Conclusion

Customer satisfaction data is a powerful compass. By combining quantitative KPIs with performance metrics, this project reveals who is delighting customers, where teams struggle, and how to drive a consistent, high-quality customer experience.

Closing Statement

This project was a crucial step in my journey to becoming a business analyst. It helped me connect technical analysis with real business decisions and reinforced the value of customer-centric thinking. With every insight, I moved closer to understanding what it means to turn data into impact.

Reflection

This project was a deep dive into one of the most critical areas of any customer-centric business — service quality and satisfaction. Working with a large real-world dataset of over 85,000 entries taught me how messy, layered, and complex service data can be. It wasn't just about numbers; it was about understanding people, behaviors, and operational patterns beneath those numbers.

I initially had to clean, transform, and explore the overwhelming volume of data carefully to avoid drawing false conclusions. I learned how important it is to define clear questions before diving into analysis. Otherwise, it's easy to get lost in exploring interesting, but irrelevant, metrics.

I realized that Excel and Power BI, when used together, can tell powerful stories. Excel helped me calculate response time, group agents by performance, and create clean pivot tables. Power BI helped me bring it to life — especially with filters that allowed stakeholder-level exploration (e.g., "show me evening shift agents only").

This project also reminded me that data is only useful if it leads to action. That's why my recommendations focused not just on performance reporting but also on what business teams can do with the insights. I feel more confident now in designing analysis that is not only technically sound but also business-relevant.