

TICKETING SYSTEM INSIGHTS REVIEW

**Customer Satisfaction and
Sentiment Analysis**





Introduction

Why Analyze Customer Satisfaction & Sentiment?

Ticketing systems are the frontlines of customer experience. They directly impact how customers perceive your support quality, efficiency, and brand loyalty.

- Tracking metrics like CSAT, CES, and NPS helps quantify satisfaction, effort, and likelihood to promote the platform.
- Sentiment analysis of open-text feedback uncovers emotional drivers behind scores.
- Comparing results across helps identify top performers and areas needing improvement.

This analysis empowers data-driven decisions to retain customers, improve service operations, and increase long-term loyalty.



Objectives



1. Evaluate Customer Experience

Analyze key metrics such as:

- Survey Response Rate
- Customer Satisfaction Score (CSAT)
- Customer Effort Score (CES)
- Net Promoter Score (NPS)



2. Perform Sentiment Analysis

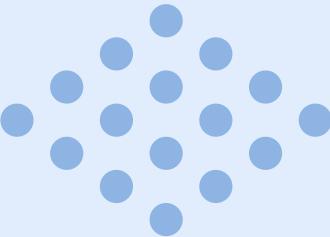
Classify open-text responses into Positive, Neutral, or Negative sentiment using NLP techniques.



3. Provide Strategic Insight

Identify patterns across ticketing platforms and recommend improvements to enhance satisfaction and customer loyalty.

Data Understanding



Dataset Overview

- 1462 customers surveyed, only 769 responded and have valid answers
- 6 ticketing platforms included: Zendesk, Zoho Desk, Freshdesk, OTRS
- Each row represents a respondent's rating of various service aspects
- Dataset combines quantitative (scale 1-5 or 1-10) and qualitative data (text and sentiment)
- Key variables for analysis:
 - Overall rating, features, value for money, ease of use, likelihood to recommend - crucial for analyzing user quality and loyalty
 - NPS category and sentiment - support quantitative results with qualitative insights
 - Ticket system - for segmentation or product comparison

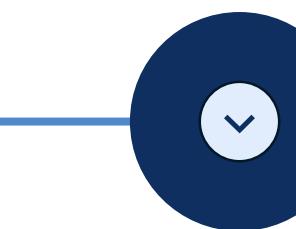


Data Cleaning and Preprocessing



Data Cleaning:

- Remove or handle missing values in numeric and text columns.
- Adjust date format in the `date_of_survey` column.
- Delete duplicate entries based on `id_survey`.



Measuring Customer Satisfaction Scores:

- Measure variables like CSAT, CES, and NPS to support analysis needs.



Text Data Normalization:

- Clean the `overall_text` column and save as `cleaned_text`.
 - Steps include converting text to lowercase, remove punctuation, stop words, numbers, and tokenize words.

Example: “Pros: Very easy set up...” becomes “very easy set up and easy to assign...”



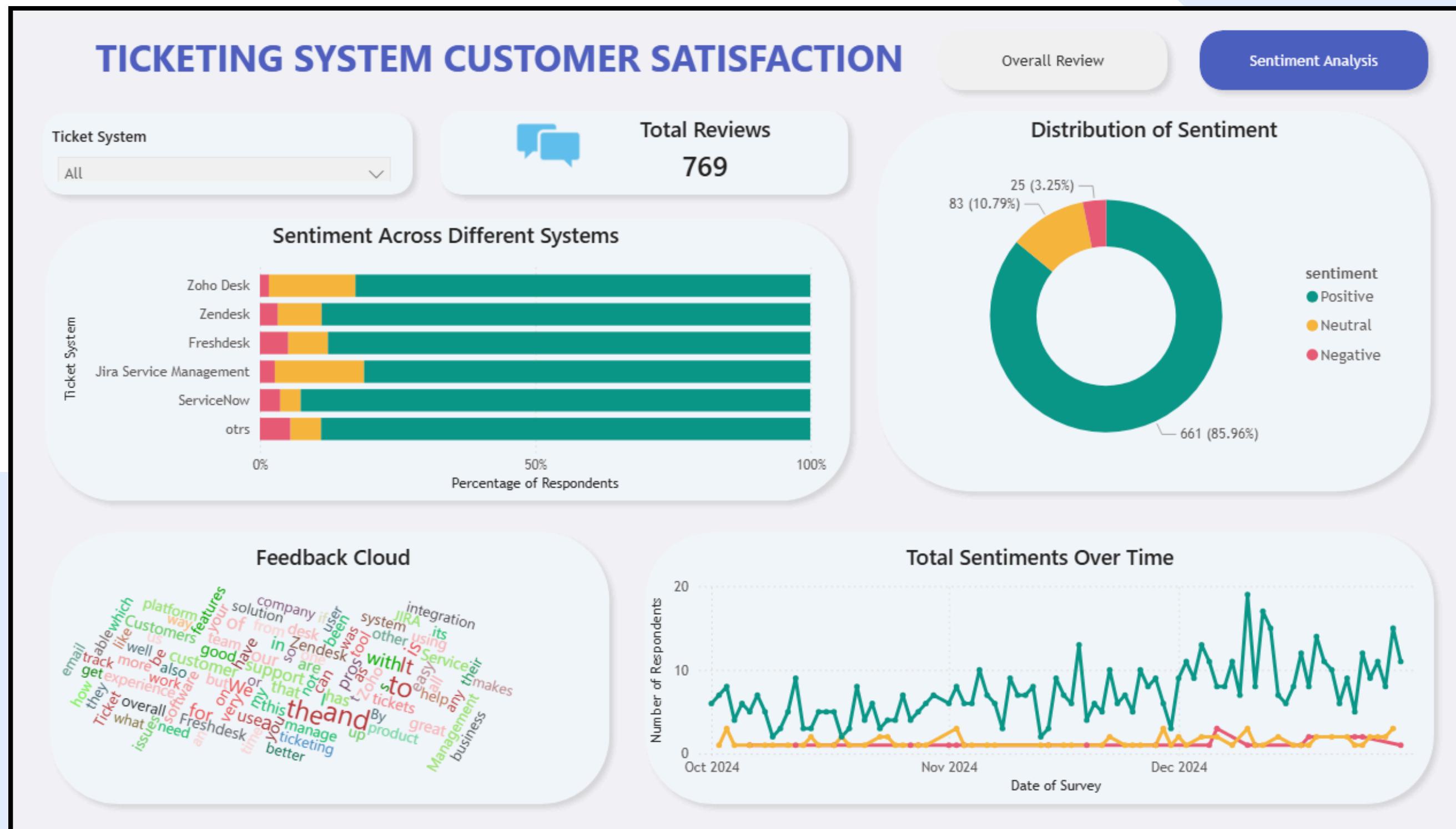
Conducting Sentiment Analysis

- Process `cleaned_text` using natural language processing (NLP) to classify the text into categories like positive, negative, and neutral.

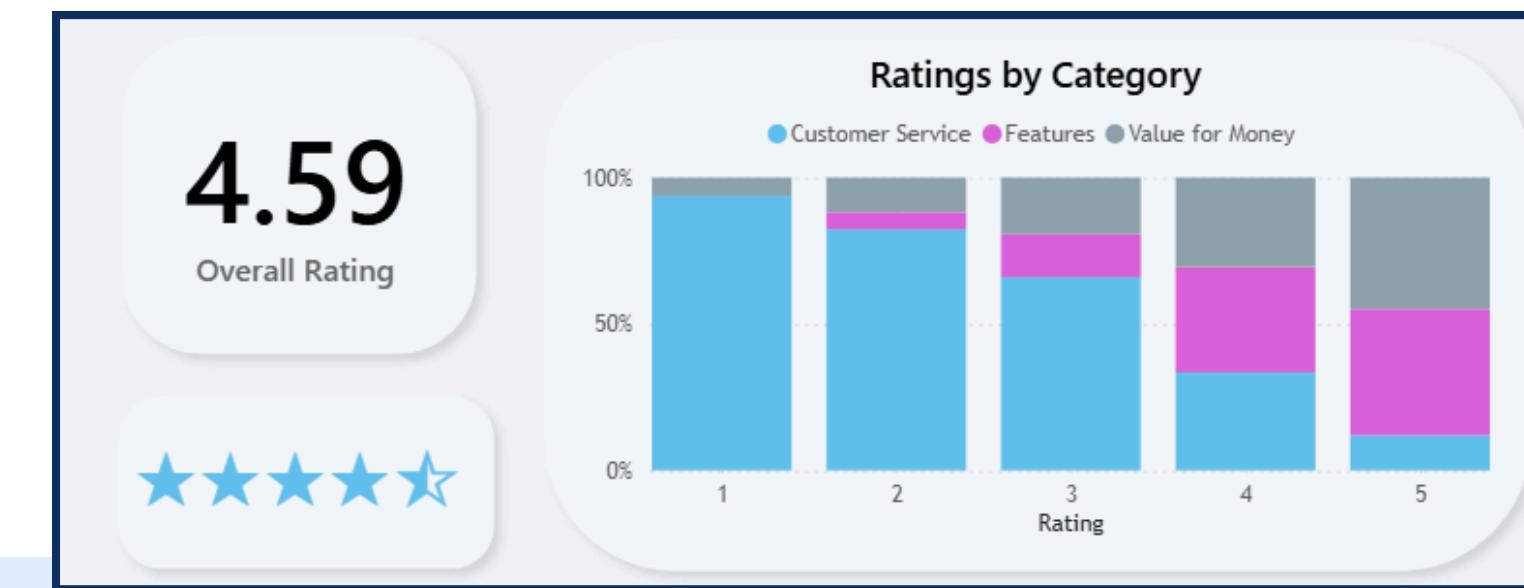
Dashboard Overview - CSAT, CES, and NPS Scores



Dashboard Overview - Sentiment Analysis



Customer Satisfaction Score and Category Ratings



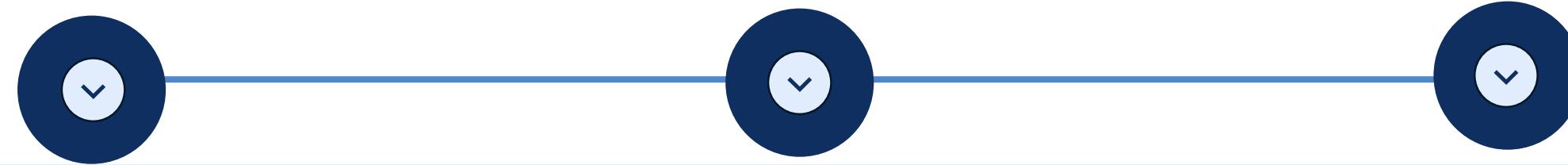
CSAT Score: 91.86% - Indicating Very High Satisfaction

- This means that over 9 out of 10 respondents reported being satisfied with the support they received from their ticketing system.
(Above 85% is generally considered excellent in customer service benchmarks.)

What Drives High Satisfaction?

- Based on the Ratings by Category chart, the Customer Service component received the most consistent high ratings (particularly 4 and 5 stars), suggesting that while product features or value-for-money may vary between systems, customers are consistently happy with the human support or service interactions.

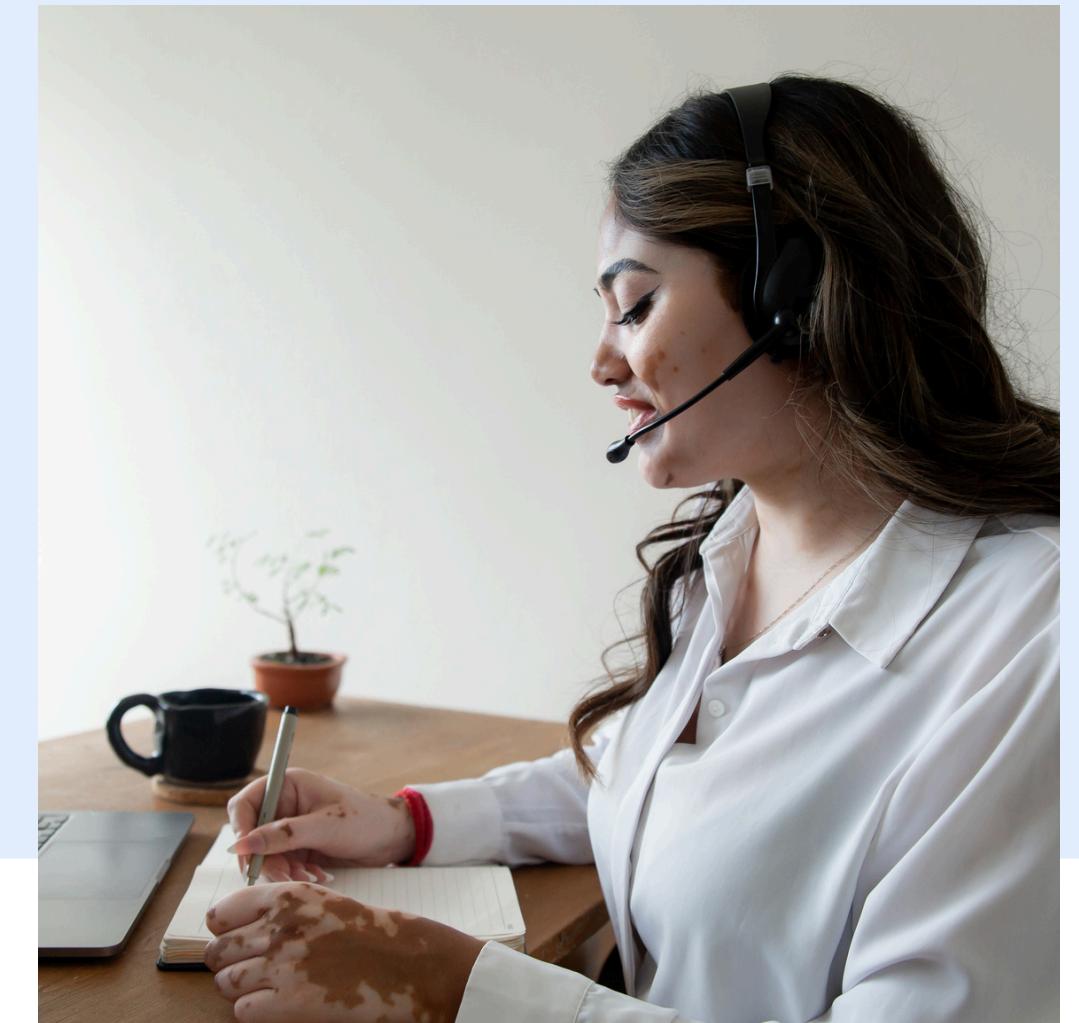
CSAT Recommendations



Improve & Maintain High Satisfaction

- Standardize Best Practices Across Systems → Identify which teams or ticketing systems receive the highest CSAT and replicate their service models (e.g., script usage, tone, resolution time) across lower-performing systems.
- Offer Personalized Support Follow-Ups → For customers leaving 3-star ratings or less, send a follow-up email to clarify concerns and recover satisfaction proactively.

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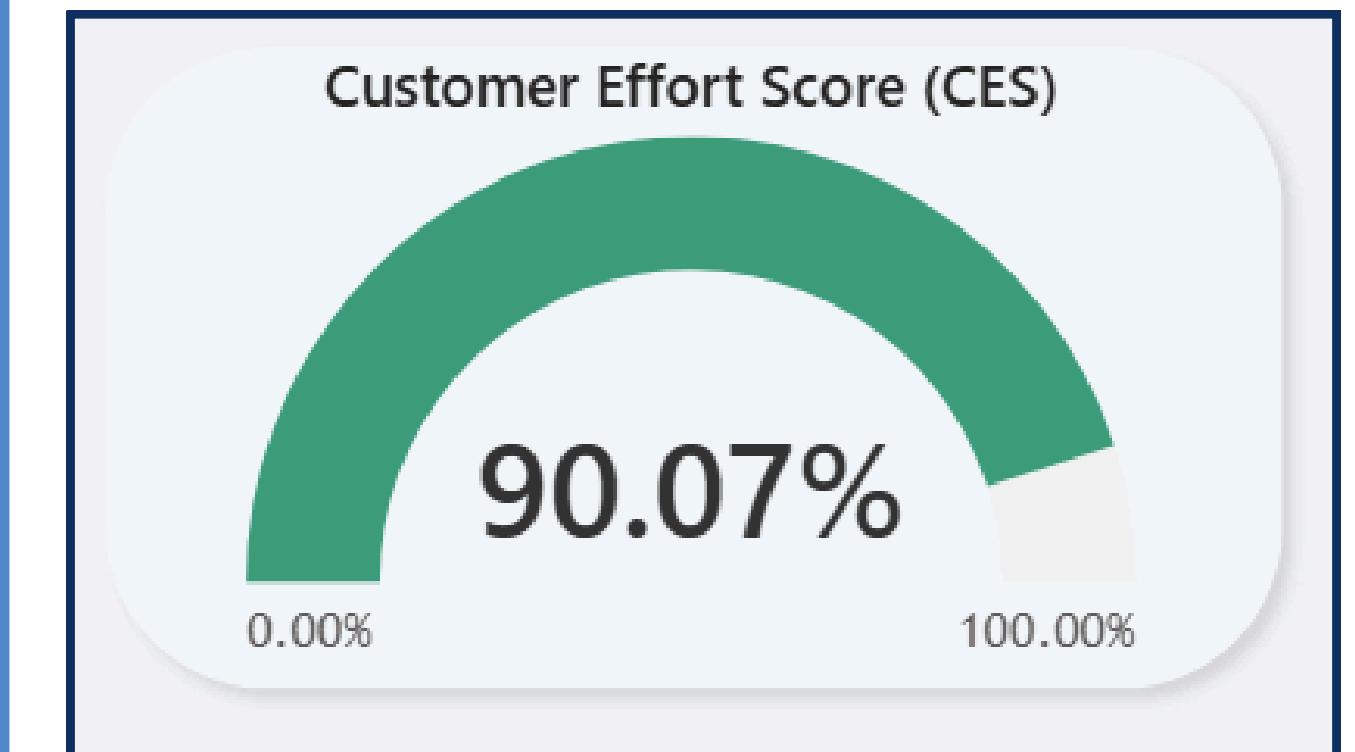
CES - Customer Effort Score

CES Score: 90.07% - Customers Find It Easy to Get Help

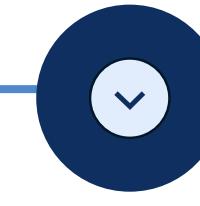
- CES measures how easily customers can resolve their issues using the ticketing system, high CES confirms that ticketing systems are not only effective but also user-friendly, enabling fast and efficient issue resolution
- A score above 90% reflects that most users did not experience friction when getting their problems addressed.

Why This Matters?

- Low-effort experiences lead to higher retention and reduce support costs.
- Combined with high CSAT, this score suggests a smooth support process and intuitive system interfaces.



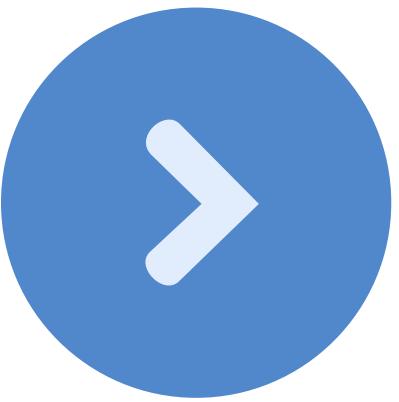
CES Recommendations



Maintain Ease & Prevent Friction

- Improve Self-Service Resources → Continue simplifying the support journey by expanding intuitive self-help articles, guided tutorials, and chatbot support for FAQs.
- Streamline Ticket Escalation Paths → Ensure that complex issues can be escalated smoothly by reducing approval layers or automating issue routing to the right department.





NPS - Net Promoter Score

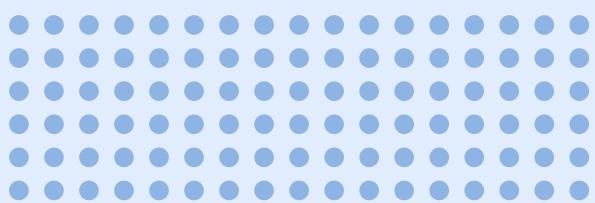
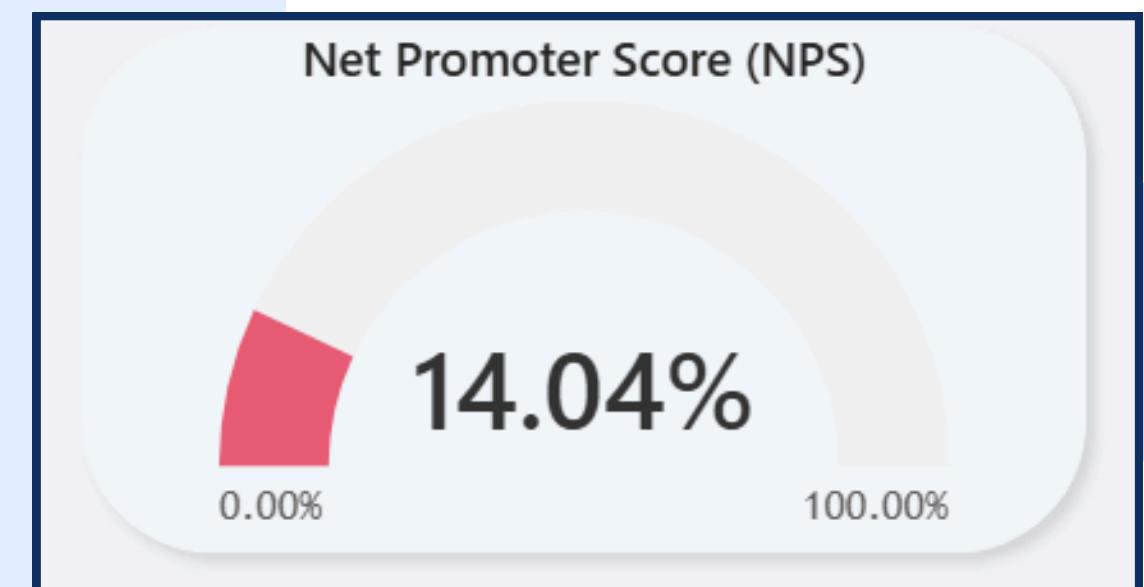


NPS Score: 14.04% - Room for Loyalty Improvement

- NPS gauges how likely customers are to recommend the service.
- Despite high satisfaction (CSAT) and ease of use (CES), only 33% of users are Promoters. A relatively high Passive rate (49%) and 19% Detractors dilute the score.

What This Tells Us?

- Customers are satisfied but not always enthusiastic or loyal enough to recommend the platform.
- Passive users may be satisfied but see no “wow” factor that drives brand advocacy.
- Detractors may point to pricing, missing features, or inconsistent experiences.



NPS Recommendations



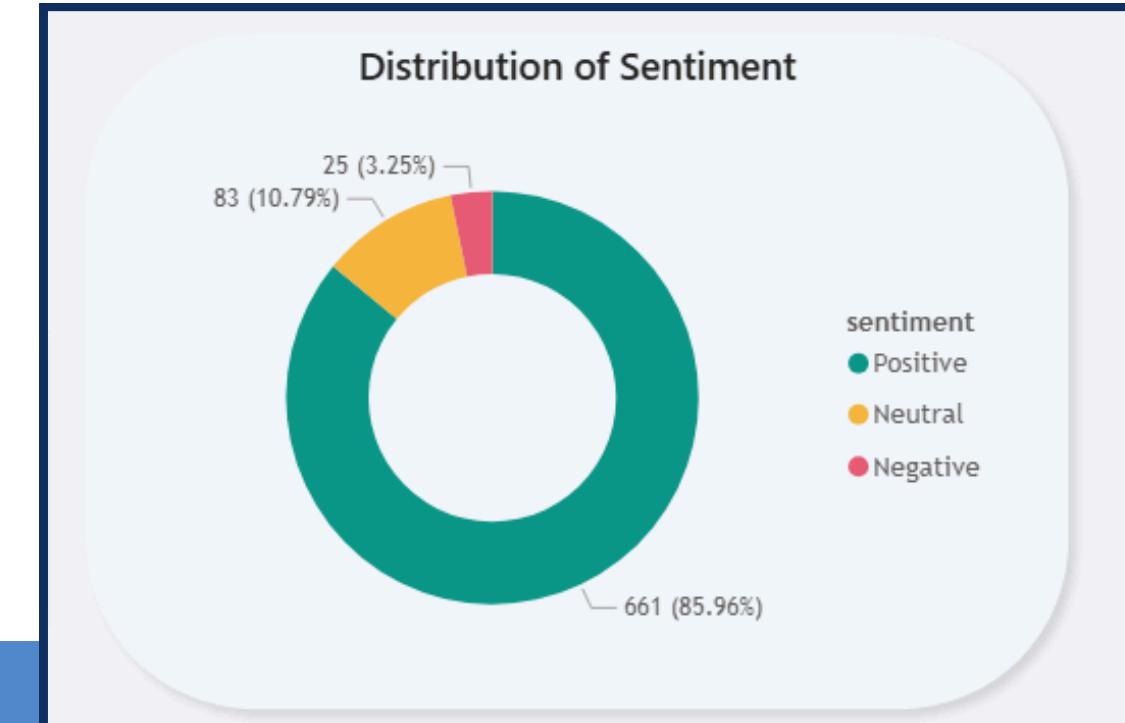
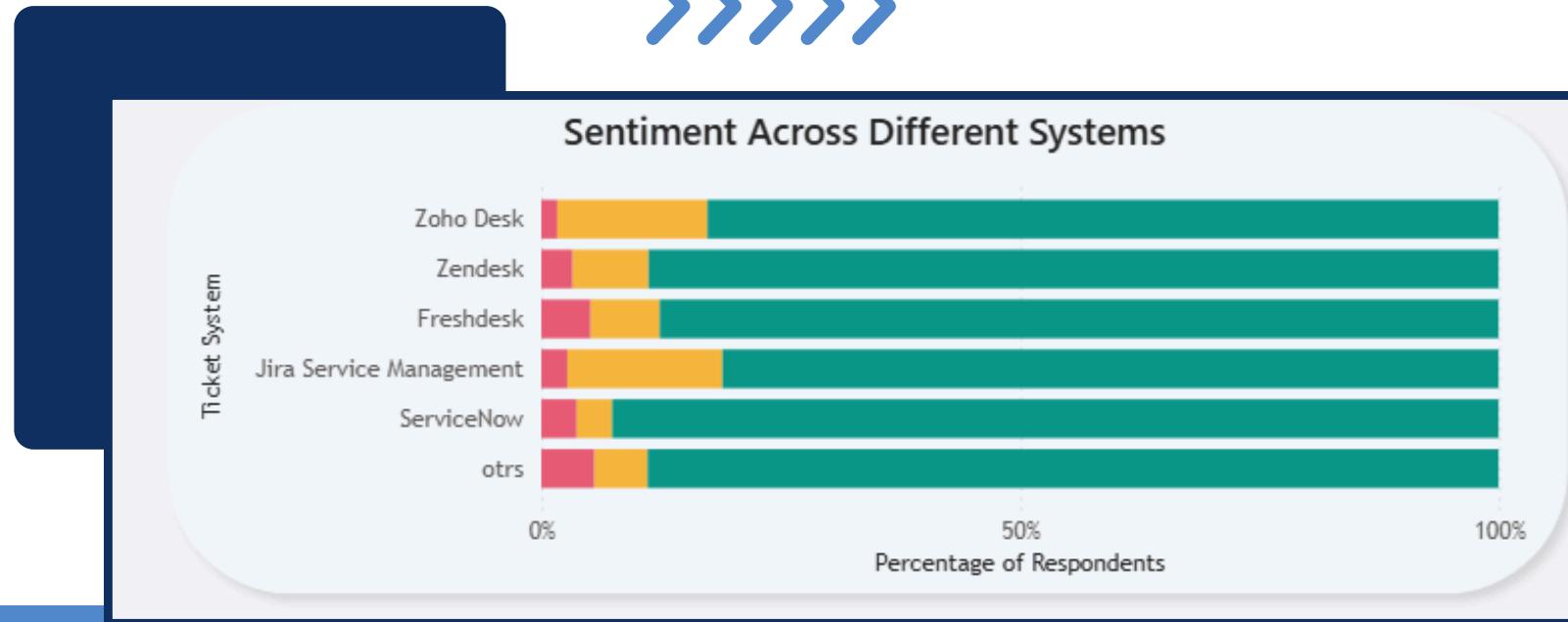
Boost Customer Loyalty



- **Launch a Referral or Loyalty Program** → Incentivize promoters to refer others via a points-based or tiered rewards system. This can help turn satisfaction into brand advocacy.
- **Conduct Follow-Ups with Detractors** → Reach out to users giving low NPS scores to understand the root causes (e.g., pricing, missing features), and use that insight to inform product or service improvements.



Sentiment Analysis



Positive Sentiment Analysis: 85.96% - Consistently Strong Perception

- The majority of open-text feedback from users demonstrates satisfaction and positive experiences.
- Sentiment aligns with CSAT/CES scores, reinforcing that users are genuinely pleased rather than merely fulfilling requirements.

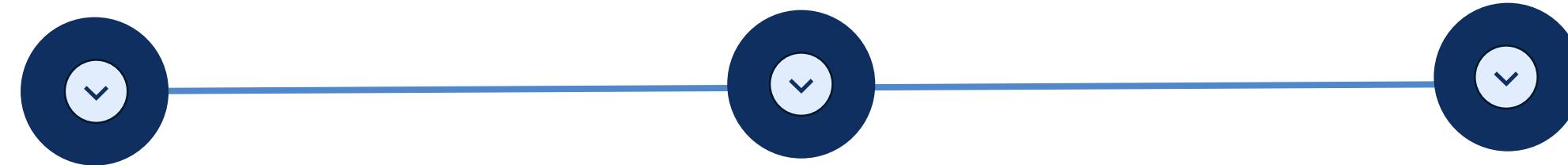
Neutral (10.79%) and Negative (3.25%) Feedback

- Neutral comments typically convey factual or mixed sentiments without a strong emotional tone (e.g., "It works, but needs improvement").
- Although minor, negative feedback points to issues such as slow resolution times, feature limitations, or pricing concerns.

Sentiment Across Ticketing Platforms

- The sentiment remains predominantly positive across all platforms, with only slight variations.

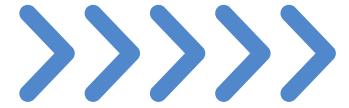
Sentiment Analysis Recommendations



Leverage Feedback Trends

- Act on Negative Themes with Targeted Fixes → Identify and categorize the top negative phrases (e.g., "slow," "buggy," "confusing UI") and assign internal teams to address them in future updates or training.
- Promote Positive Reviews as Testimonials → Use highly positive feedback as testimonials on your website or social media to reinforce brand trust and amplify promoter voices.





Conclusion

Key Takeaways:

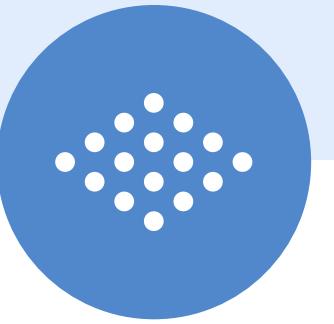
- Customers are highly satisfied (CSAT 91.86%) and find the systems easy to use (CES 90.07%)
- NPS (14.04%) reveals that many customers are passive — satisfied, but not loyal or enthusiastic
- Sentiment analysis confirms the positive trend, but highlights areas to monitor, especially in neutral and negative feedback

Strategic Implications:

- ✓ Maintain high standards in customer service by replicating what works
- ✓ Focus on converting passive users into promoters through added value
- ✓ Use sentiment trends to guide product improvement and support strategy

By combining satisfaction metrics with sentiment insights, companies can deliver a more loyalty-focused, emotionally intelligent customer experience.





**THANK
YOU!**

