



SKYHACK 2024



✈ Search Data

Find Solution

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Introduction



As United Airlines strives to provide world-class customer service, optimizing call center operations is critical. However, challenges such as high Average Handle Time (AHT) and Average Speed to Answer (AST) are affecting efficiency and customer satisfaction. Addressing these issues is essential to improve service delivery, reduce wait times, and enhance the overall customer experience.

Analysis of Current Customer Care Performance:

1. Average Handle Time (AHT)

AHT measures the total time from when a customer connects with a customer care agent to when their issue is resolved. This includes the time spent on hold, speaking with the agent, and any follow-up actions taken during the call. Reducing AHT is key to improving efficiency and customer satisfaction.

Current mean AHT- **19.87**

Average_Handle_Time	
count	383.000000
mean	19.877479
std	4.704202
min	9.000000
25%	18.301720
50%	19.048507
75%	19.948175
max	68.000000

2. Average Speed to Answer (AST)

AST measures the time it takes to connect a customer with a live agent after they enter the call queue. Reducing AST helps minimize customer wait times, leading to a more efficient and satisfying customer experience.

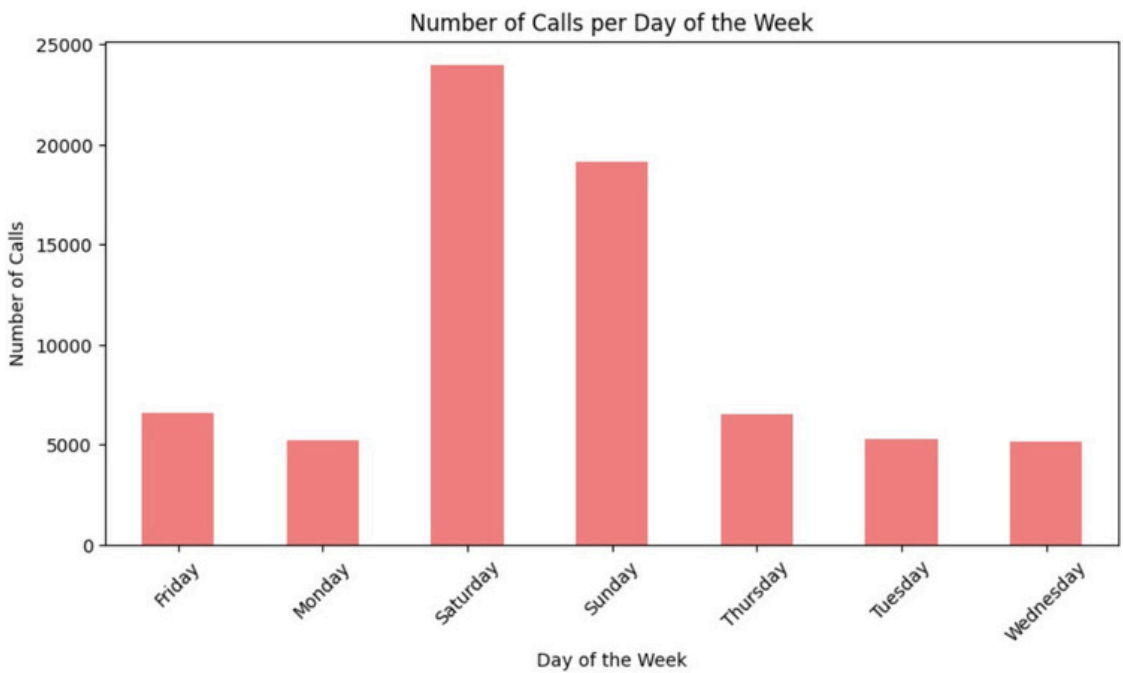
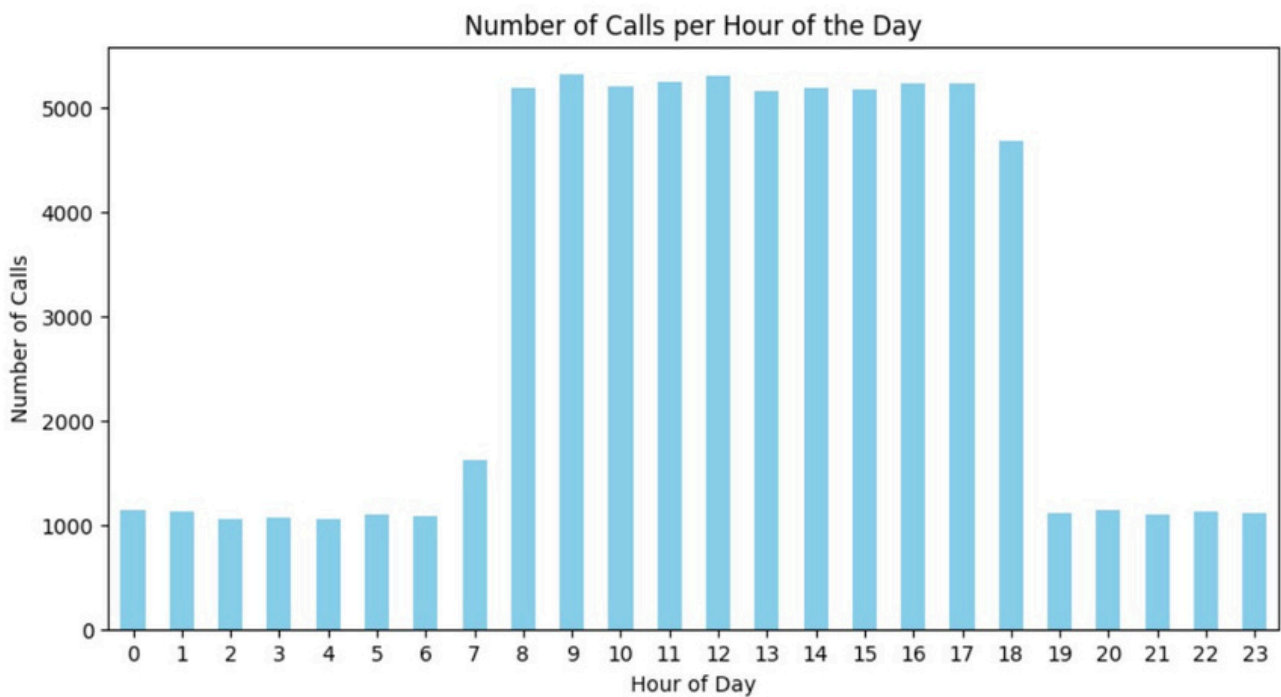
Current mean AST-7.28

Average_Time_in_Answering	
count	71810.000000
mean	7.284459
std	2.518830
min	3.000000
25%	5.000000
50%	7.000000
75%	9.000000
max	15.000000



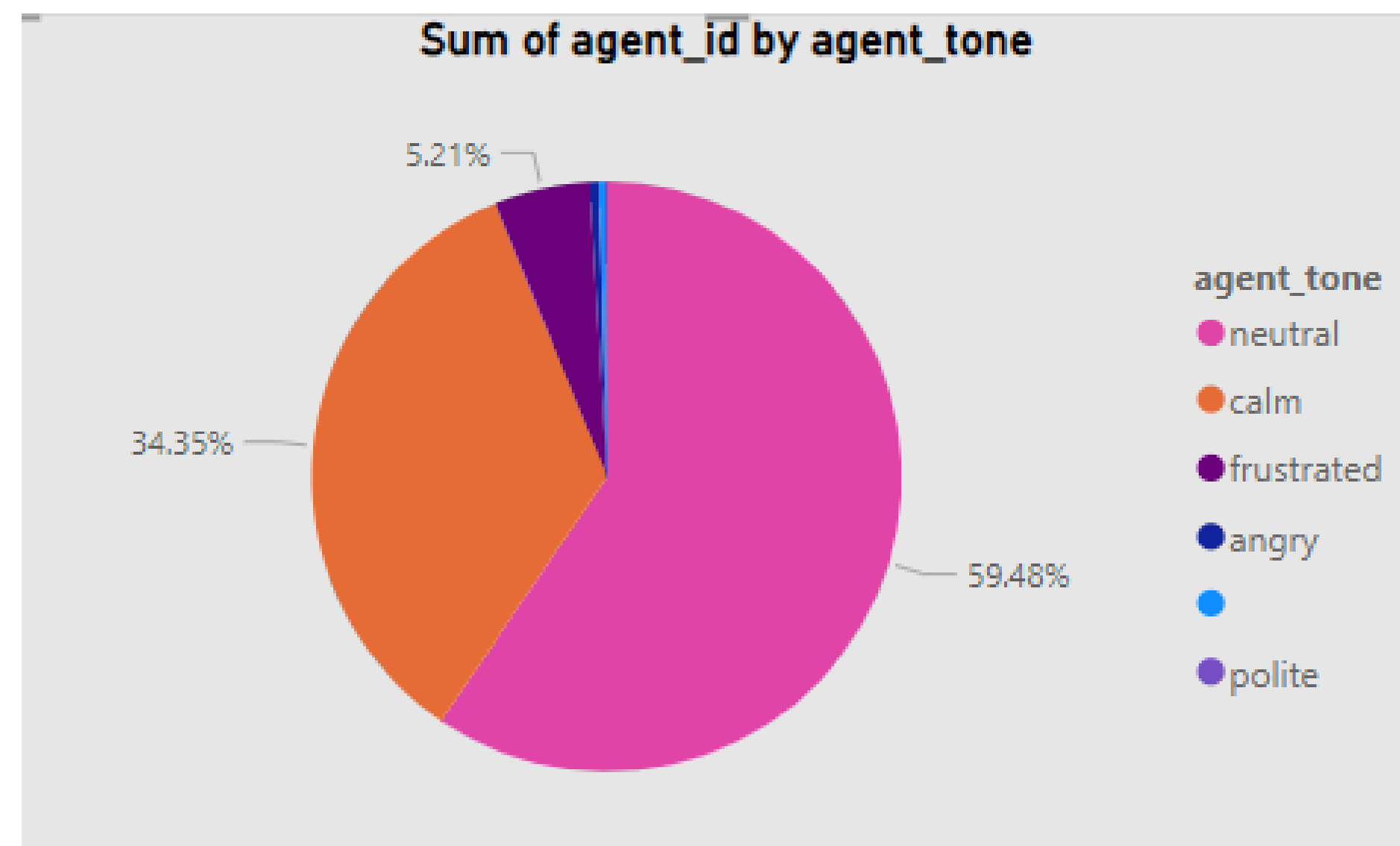
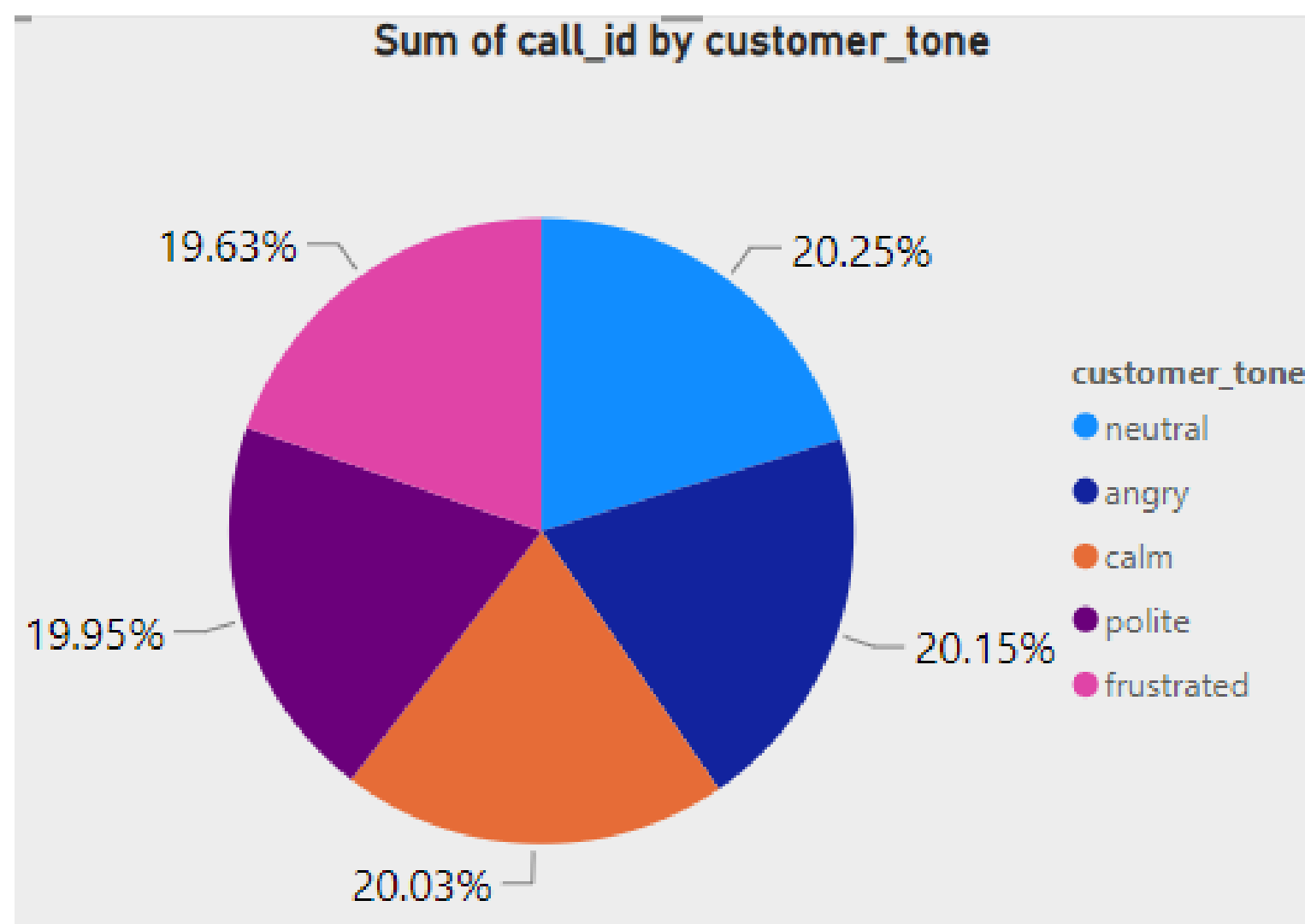
3. High-Volume Call Periods and Their Impact

We have identified specific time periods when the volume of customer queries is at its highest. This surge in queries creates significant pressure on customer care agents, reducing their efficiency and affecting their ability to remain calm and focused while resolving issues. Managing this workload effectively is critical to maintaining high service quality and agent performance.

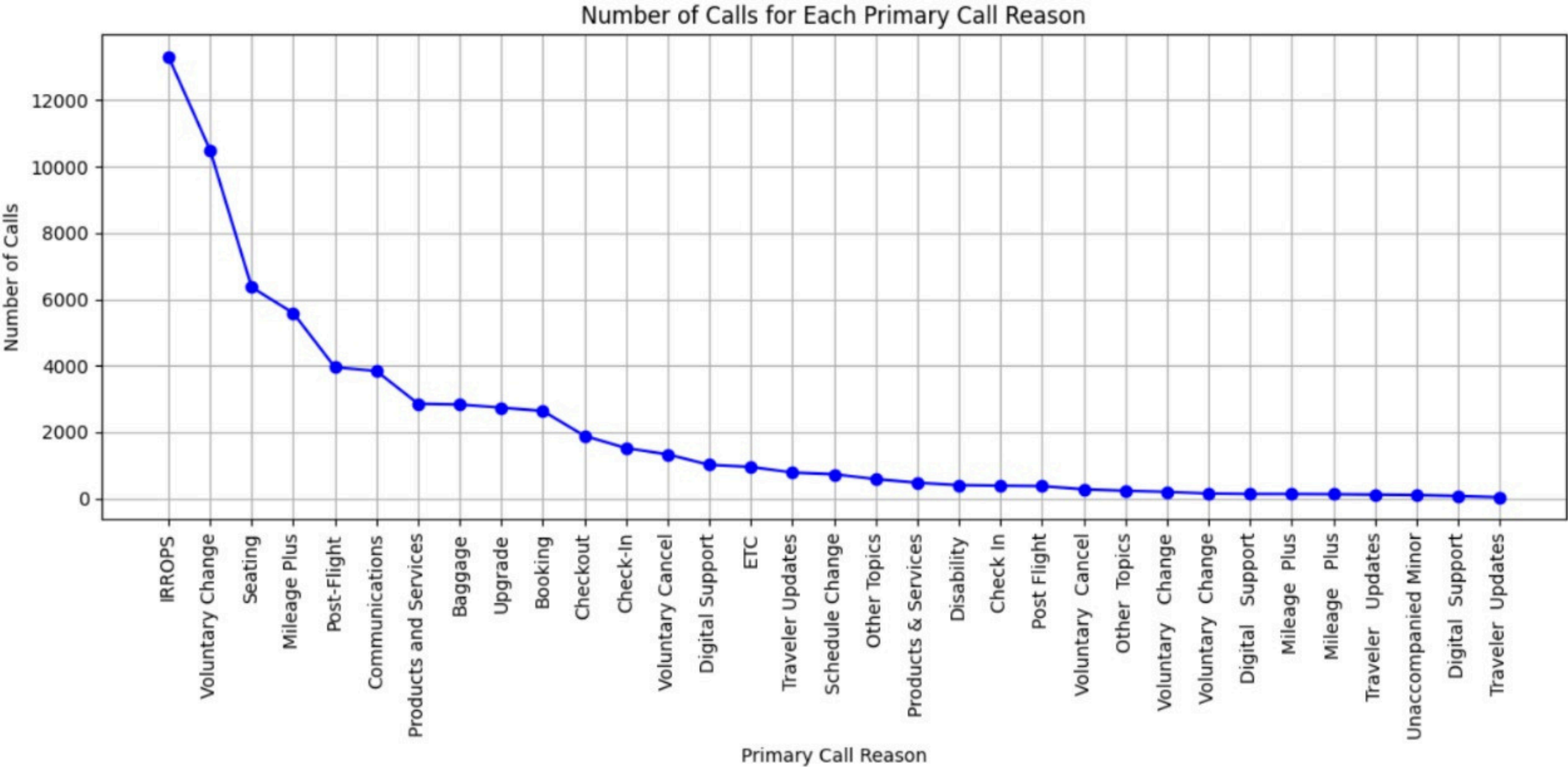


4. Customer and agent Tone analysis

The agent's tone during query resolution is crucial for ensuring customer satisfaction. A calm and empathetic tone helps build trust and provides a better experience for the customer. Additionally, by analyzing the customer's tone, we can gather valuable insights into the severity of the problem. This helps agents prioritize and address more urgent issues effectively, ultimately enhancing problem resolution and customer experience.



5. Query reasons



1. AI ChatBot

We have developed an AI chatbot designed to assist customers with their primary issues by providing advice and guidance.

Key Features:

- **24/7 Availability:** The chatbot offers round-the-clock support, ensuring customers can access assistance at any time.
- **Instant Responses:** It delivers immediate answers to common queries, reducing wait times and enhancing customer satisfaction.
- **Guided Assistance:** The chatbot guides customers through troubleshooting processes and frequently asked questions, making it easier to resolve issues independently.
- **Continuous Learning:** Powered by Retrieval Augmented Generation LLM, the chatbot improves its responses over time based on customer interactions and feedback.

Benefits:

- **Reduced Call Volume:** By addressing common issues, the chatbot decreases the number of calls to human agents, allowing them to focus on more complex inquiries.
- **Enhanced Customer Experience:** Customers receive quick and efficient support, leading to increased satisfaction and loyalty.
- **Operational Efficiency:** The chatbot streamlines service delivery, improving overall operational performance for United Airlines.

2. IVR (Interactive Voice Response)

Key Features:

- While the customer waits, they can describe their issue using voice recording.
- Simultaneously, the system will convert their voice input into written form.
- The written description is displayed to the customer to confirm accuracy.

Benefits to the Customer:

- **Sense of Progress:** Customers feel their issue is already being addressed during their wait.
- **Confirmation of Problem:** They can see a written version of their problem, providing reassurance that their issue is understood correctly.
- **Enhanced Customer Experience:** Reduced frustration and a feeling of being heard from the very beginning.

Benefits to Agents:

- **Faster Understanding of the Issue:** Agents receive a clear and concise problem description when they start the call.
- **Reduced Handle Time:** Less time spent on diagnosing the problem, allowing for faster resolutions.
- **Increased Efficiency:** Agents can immediately focus on solving the issue rather than collecting information.

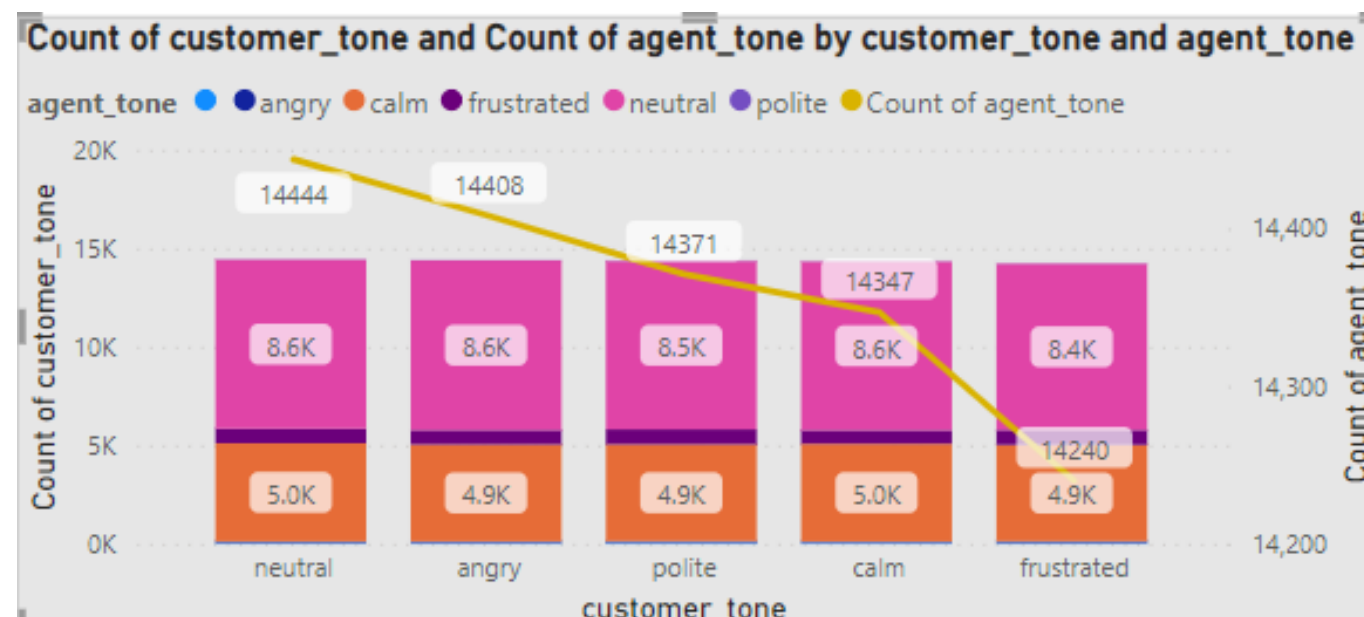
3. Efficient assignment of customer to agent based on sentiment Analysis

Key Features:

- **Agent Mood Forecasting:** The system can predict the agent's emotional state based on past interactions and workload.
- **Customer-Agent Matching:** Customers showing frustration or anger are paired with agents known for their calmness and problem-solving skills.

Benefits to the Customer:

- **Improved Customer Satisfaction:** Frustrated customers are more likely to have a positive experience when assisted by agents who can remain calm and empathetic.
- **Efficient Issue Resolution:** Calm agents can de-escalate tense situations more effectively, leading to quicker and more satisfactory resolutions.
- **Better Resource Allocation:** Matching emotional needs of customers with agent capabilities ensures that each interaction is handled by the most suitable agent, improving overall performance.



THANKYOU

