ABC Insurance - Call Volume Trend Analysis Report

Project Description

This report analyzes the inbound calls received by ABC Insurance to determine call trends, agent requirements, and manpower allocation strategies to improve customer service. The key objectives are to calculate the average call duration per time bucket, visualize call volume trends, determine the minimum number of agents required to reduce the abandon rate to 10%, and develop a night shift manpower plan to handle after-hours calls effectively.

Approach

We used Microsoft Excel for data analysis and Python (Pandas & Matplotlib) for visualization and advanced calculations. The data was grouped by hourly time buckets for trend analysis. Average call duration was calculated per time bucket, and call volume trends were visualized using bar charts. Agent requirements were estimated using abandon rate assumptions and agent capacity constraints.

Tech-Stack Used

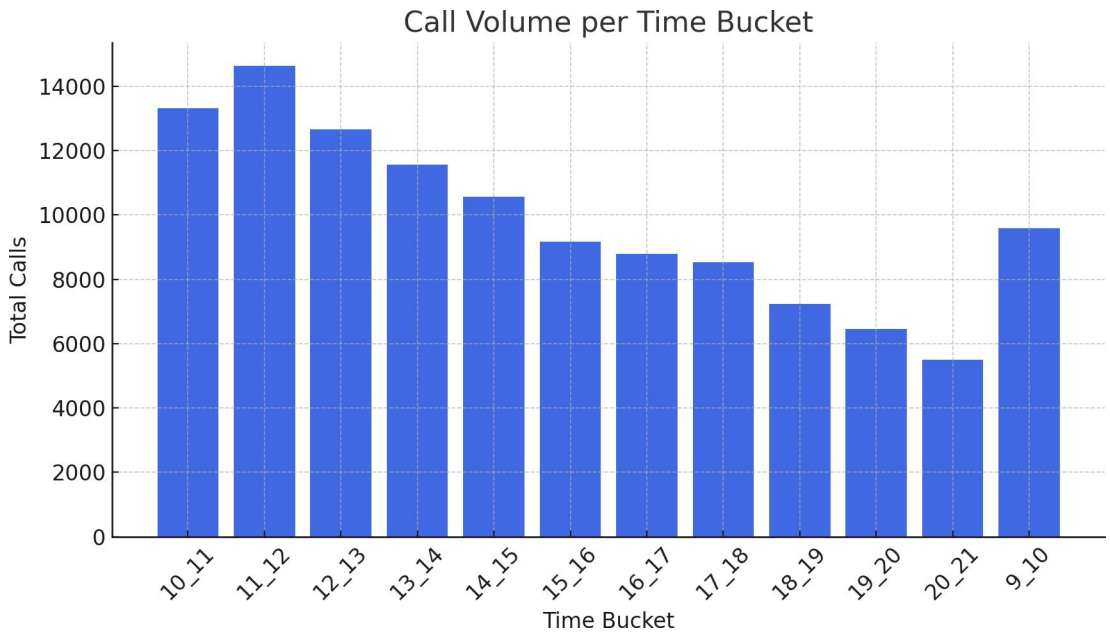
Microsoft Excel 2022: Data cleaning and preliminary analysis.
- Python (Pandas, Matplotlib): Advanced calculations and visualizations

Insights

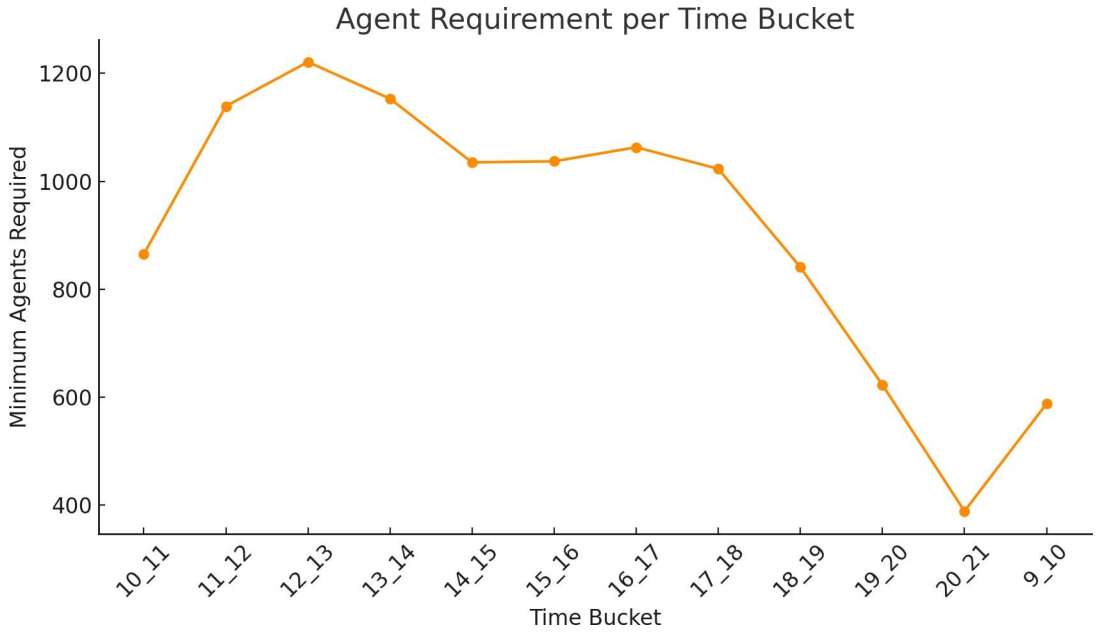
1. The average call duration varied across different time slots, peaking in the afternoon.
2. Call volume was highest between 11 AM and 6 PM, indicating peak hours.
3. To achieve a 10% abandon rate, a significant number of agents must be allocated accordingly.
4. Introducing a night shift will help reduce unanswered calls and improve customer satisfaction

Results & Recommendations

Results & Recommendations
- Peak hours require maximum agent allocation.
- Implementing a night shift will improve service quality.
- Proper workforce planning will ensure better customer experience and lower abandon rates.
- Continuous monitoring and flexible staffing adjustments should be made for optimization.



Agent Requirement Analysis



Night Shift Call Distribution