Airlines Review Analysis - Detailed Report

Methodology:

A Bayesian weighted average model was applied to correct imbalance in review counts.

Dataset includes 422 airlines and approximately 12,000 reviews.

Market Overview:

Mean Rating: 2.80

Recommendation Rate: 30%

Standard Deviation: 2.74

Temporal Trend:

2018 – 3.38 (Peak)

2019 – 3.08

2020 – 3.06

2021 – 2.82

2022 – 2.57

2023 – 2.58

Driver Analysis:

Strongest correlations with overall rating:

Ground Service

Value for Money

Customer Segmentation:

Solo Leisure – 39.33%

Couple Leisure – 25.38%

Family Leisure – 20.75%

Economy Class – 85%

Platform-Level Strategic Recommendations:

1. Smart Ranking Algorithm:

Incorporate Bayesian-adjusted ratings and route-level sentiment into ranking logic instead of sorting purely by lowest price.

2. Value Score Implementation:

Create a composite score combining fare, overall rating, and ground service score to highlight “Best Overall Value” rather than cheapest option.

3. Sentiment-Based Alerts:

Display contextual warnings for airlines with high negative sentiment to manage expectations before booking.

4. Personalised Recommendations:

Use traveler type data to recommend airlines optimized for business, family, or leisure travel segments.

5. Churn Prediction Model:

Leverage low rating submissions and negative sentiment signals to trigger retention campaigns and personalized follow-ups.

6. Closed-Loop Feedback System:

Ask post-travel satisfaction questions to validate whether booking expectations matched real experience.

7. Post-Booking Assistance Layer:

Provide proactive disruption alerts and simplified rebooking pathways

to ensure the platform remains a trusted travel partner.

Conclusion:

While airline operational performance is external to the platform,

transparency, intelligent ranking, personalized recommendations, and proactive

support mechanisms can directly improve customer retention, reduce churn,

and increase long-term loyalty.