Insights & Storytelling Report

Project: Flight Passenger Satisfaction - Business Intelligence

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Objective. Transform dashboard outputs into decision-ready insights: what drives passenger satisfaction, which segments are at risk, and what actions would improve outcomes.

Figure 1 - Executive summary dashboard (Power BI).

1. Executive summary

The dataset contains **25,976** passengers. Overall satisfaction is **43.9%** (11,403 satisfied vs. 14,573 neutral/dissatisfied). The largest satisfaction gaps are driven by **type of travel**, **cabin class**, and **customer loyalty**.

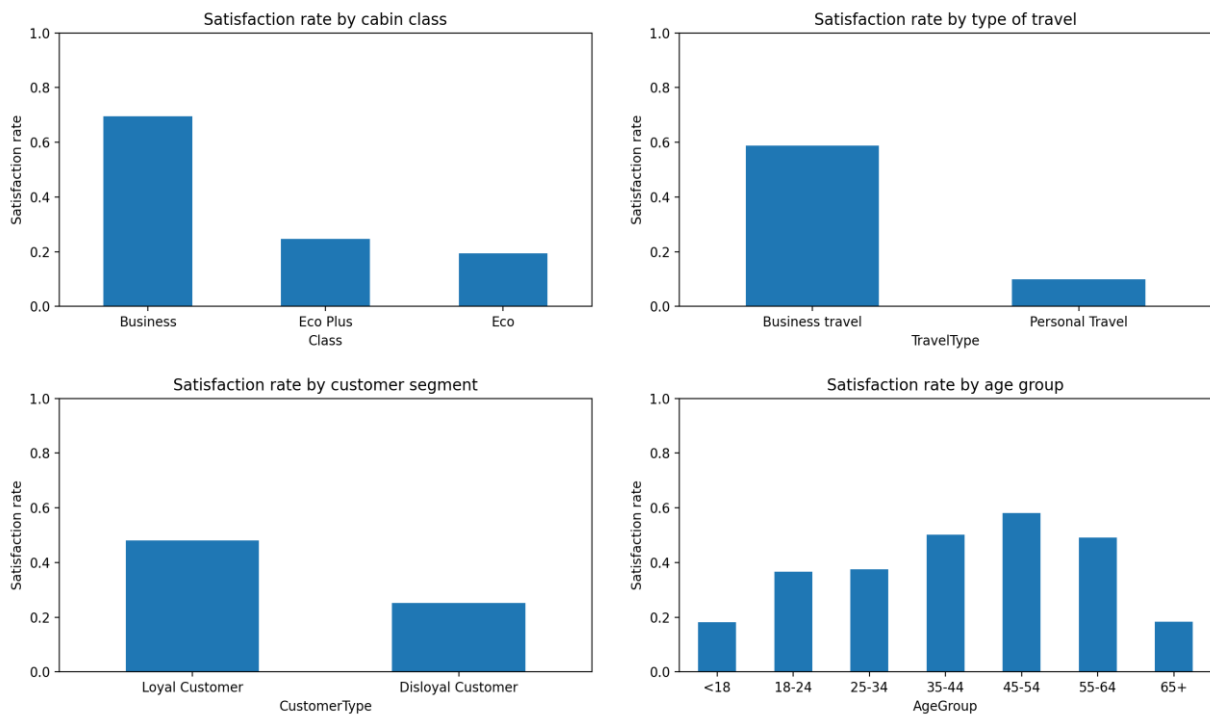| KPI	Value
Number of passengers analyzed	25,976
Overall satisfaction rate	43.9%
Satisfaction rate - Business class	69.5%
Satisfaction rate - Eco class	19.4%
Satisfaction rate - Business travel	58.8%
Satisfaction rate - Personal travel	10.0%
Satisfaction rate - Loyal customers	48.1%
Satisfaction rate - Disloyal customers	25.2%

Figure 2 - Satisfaction segmentation overview (derived from cleaned dataset).

2. Segment deep-dive: where satisfaction is won or lost

Combining loyalty, travel purpose, and class reveals where to prioritize action. The biggest opportunity is the **personal travel** segment (very low satisfaction across all classes). A second opportunity is improving the **disloyal economy** experience to drive retention. Finally, the **loyal business traveler** segment is a core segment to protect.

Top segments	Sat.	N
Business travel / Loyal Customer / Business	78.0%	10,106
Business travel / Loyal Customer / Eco	48.6%	2,358
Business travel / Loyal Customer / Eco Plus	46.6%	812
Lowest segments		
Business travel / Disloyal Customer / Eco Plus	8.5%	200
Personal Travel / Loyal Customer / Eco Plus	8.8%	905
Personal Travel / Loyal Customer / Business	9.5%	514
Personal Travel / Loyal Customer / Eco	10.2%	6,482

Operationally, delays are higher for neutral/dissatisfied passengers (32.7 min vs 24.2 min). Satisfied passengers also tend to fly longer routes on average (1527 vs 933 miles/km units).
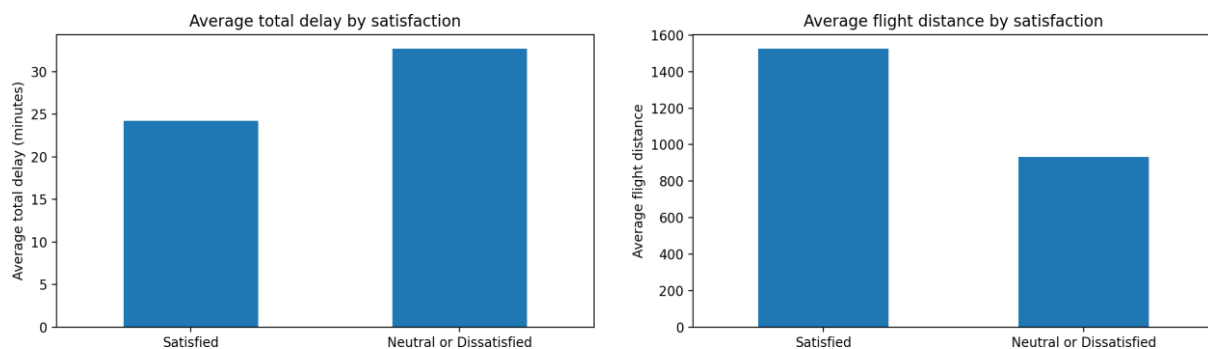

Figure 3 - Operational context: delay and route length by satisfaction.

3. What drives satisfaction: service levers and operational drivers

The strongest service gaps between satisfied vs. neutral/dissatisfied passengers point to levers with the highest potential impact. Online boarding is the single largest gap, followed by inflight entertainment, seat comfort, cleanliness, on-board service, and leg room. A predictive model confirms these patterns and emphasizes travel purpose, loyalty, and delays as major drivers.
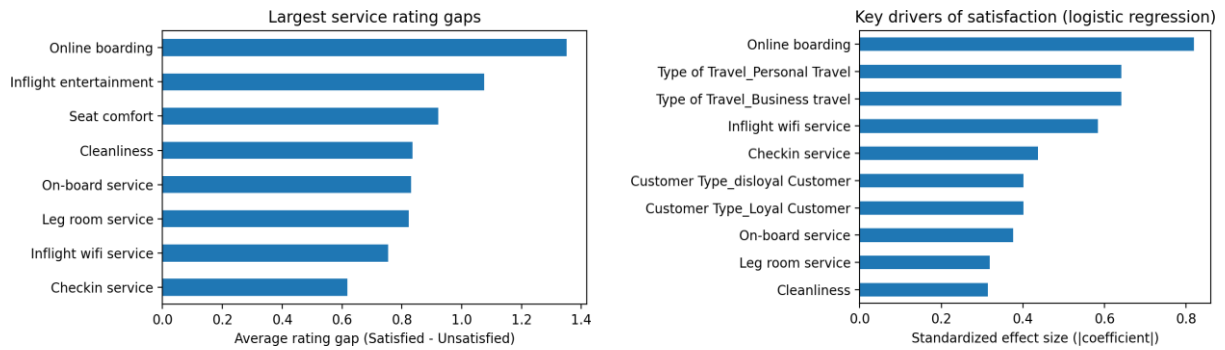

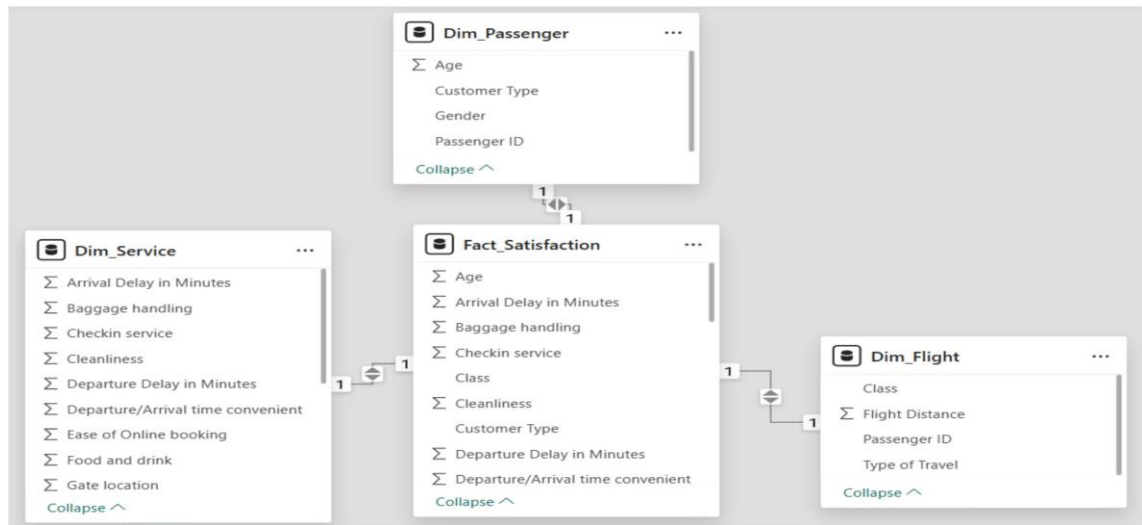Figure 4 - Service gaps and key drivers.

4. Recommendations and next steps

1)Prioritize personal travel: redesign the end-to-end journey (booking, boarding, inflight, baggage) and measure improvements with a monthly scorecard.

2)Improve digital experience: online boarding reliability and self-service boarding are the highest-impact levers; Wi-Fi quality is also a top driver.

3)Raise economy comfort baseline: seat comfort, leg room, and cleanliness improvements in Eco/Eco Plus to close the largest class gap.

4)Reduce delay pain: target on-time performance and add proactive disruption communication + rebooking support.

5)Retention playbook: convert disloyal economy customers using perks tied to the drivers (priority boarding, Wi-Fi vouchers, flexible changes).

6)Protect premium segment: maintain SLAs for loyal business travelers and use them as the internal benchmark.

Limitations and future improvements

1)Add time/route/airport dimensions to enable trends and root-cause analysis by location and season.

2)Add importance to the voice-of-customer (scoring system + text feedback) to explain why ratings are low for personal travel.

3) Survey bias: Satisfaction is self-reported and may over-represent extreme opinions (people who are very happy or very unhappy respond more). This means the measured satisfaction rate may not perfectly represent the satisfaction of all passengers, especially those who don't respond to surveys. Also, satisfaction is a simplified label that may not capture nuance (e.g., a passenger could be satisfied overall but unhappy with one key touchpoint).

Appendix: Data model (Power BI)

Data Model Diagram

Star-schema diagram used in the project.