

# AirAudit: Intelligent Audit Solution for Airlines - Reducing Revenue Leakage & Improving Operational Efficiency

By

Sethuraman Janardhanan, PhD  
Rammurty Kommajosyula

Happiest Minds, Business Analytics Practice



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## Introduction

In recent times, the airline industry is focusing on ways to increase profitability, using appropriate service enhancement techniques, marketing scheduling and revenue management strategies. One such strategy is Make-easy-Travel. In line with this system, customers can book, cancel or make any transaction related to air travel, through airline Central Reservation System (CRS), online systems or through travel agents /Global Distribution System (GDS's).

Although the airline industry has benefitted due to a significant increase in sales with the help of travel agents/GDS's; it has also led to sizeable revenue losses due to improper booking practices. Revenue leakage through GDS can be defined as the difference between the expected GDS bookings and the actual amount that the airlines eventually receives from GDS. This is mainly due to inefficiency of the GDS staff or due to travel agents or customers who deliberately abuse the airline reservation system.

According to industry reports, the average revenue loss due to NO SHOW passengers and late cancellations amounts to 15%. In some sectors/ connections it even comes up to 30% - 40%. Passengers buying tickets from different travel agencies are found to be cancelling tickets without any apparent reason, and the cancellation does not follow any specific pattern either. This trend, however, is costing the airline companies dearly as they are not only losing the ticket amount but are also forced to pay the extra cost to GDS. An airlines' distribution strategy helps to determine the type of content to sell in a particular channel along with the optimum price, time and cost. So from an airlines point of view, it becomes very important to pay attention to the distribution of sales as well as the sales and refund figures.

This paper throws light on how the Happiest Minds AirAudit solution can help in solving the challenges faced by the airline industry, due to improper booking practices followed by the agencies. This solution further assists the airlines to increase their revenues by helping them identifying the revenue growth opportunities.



## The Opportunities & Challenges

**The major objective of any airline company is to:**

- Understand their customer behavior and the need to maximize their client satisfaction
- Identify new growth opportunities, and increase their market value
- Reduce unnecessary distribution costs and inventory spoilage.

The airline industry is currently facing a lot of challenges in achieving these objectives, due to agencies indulging in fraudulent activities.

**Impact of Improper booking practices:**

- Results in less choice and non-availability of seats. This leads to customer dissatisfaction.
- Leads to inaccurate forecasting in areas such as airline market, growth opportunities and revenue.
- Increases unnecessary costs like GDS distribution costs, maintenance costs etc.

The airlines industry as a whole, wants to prevent the unnecessary GDS distribution costs and inventory spoilage, caused by the agencies' non-compliant booking practices. But most of the airlines find it difficult to understand all of the Billing Information Data Tape (BIDT) data, as well as analyze and identify fraudulent activities.

## Air Audit Solution Framework:

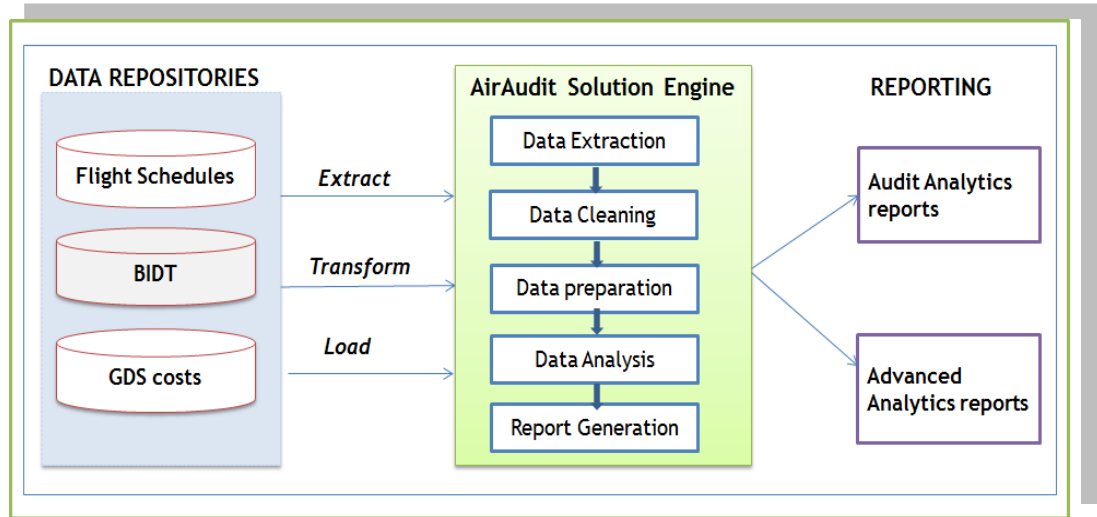
AirAudit is the analytical solution designed by Happiest Minds to understand and analyze the BIDT data. It generates extensive audit and advanced analytics reports. The major objectives of Happiest Minds AirAudit solution are:

- To identify the different fraudulent bookings made by travel agents
- To validate the GDS monthly invoices and to identify billing errors
- To track the agencies distribution and to monitor their performances
- To monitor the marketing segment performances and to identify target segments



- To support in preparing and raising Agent Debit Memo's to travel agents.

### AirAudit Solution Framework:



**Table1: Audit Analytics reports**

Examples	Description
Inactive Bookings Report	List of bookings present in BIDT with inactive segment codes
Duplicate Bookings Report	Provides details of duplicate bookings made by travel agents with same passenger name and travel date but change in other transaction details.
Churn Bookings Report	List of repeated cancelling and re-booking of tickets by travel agents for the same or different flight, class, date or route.
Fictitious Bookings Report	List of bookings made by travel agents with spurious or fake names and for testing/training purposes.
Invalid Class Report	Gives details of all bookings / cancellations made on classes which are not part of airline inventory.
Invalid Flight Report	List of all bookings/cancellations made on invalid flight numbers.

Examples	Description
Invalid City Pairs Report	Gives details of all bookings/cancellations made by agents on invalid city pairs (not available on the respective flight on respective date).
Invoice match Report	This report verifies the correctness of the invoice generated by GDS.
Waitlisted Bookings Report	List of repeated bookings made by travel agents with waitlisted status.
Cancellations within 24 hours of flight departure Report	List of tickets cancelled by travel agents just before 24 hours of flight departure.
Passive Bookings report	Gives details of all bookings made by travel agents on passive segments.
Suspicious bookings report	Gives details of bookings which are done in large numbers and cancelled all or most of the tickets.

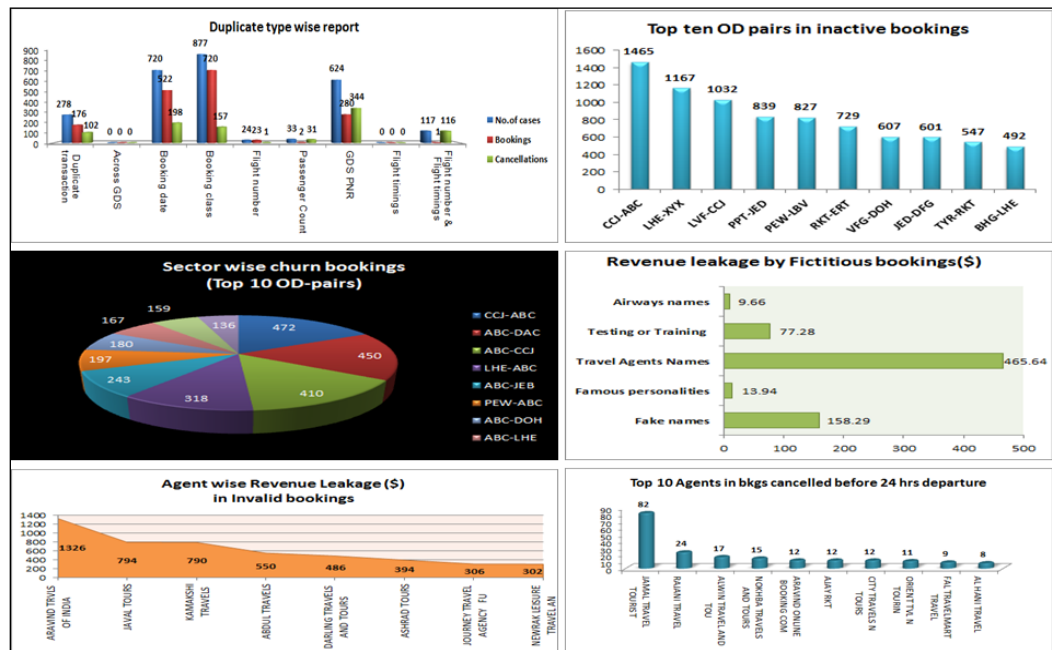
**Table2: Advanced Analytics reports**

Examples	Description
Agent wise cost analysis report	This report gives the list of total bookings, cancellations and total cost incurred by agencies to airlines.
Country wise cost report	Gives the detailed report of transactions and the related costs at country level.
GDS wise cost analysis report	This report lists out the total bookings, cancellations and total cost incurred by GDS at territory level.
Agent performance report	Gives the performance details of agencies based on transactions, costs and fraudulent activities.
Sector performance report	Lists out the top sectors of airlines based on the transactions and corresponding costs.
Flight wise performance report	Lists out the top flights of airlines based on the transactions and corresponding costs.
Region wise performance report	Gives the details of top cities or

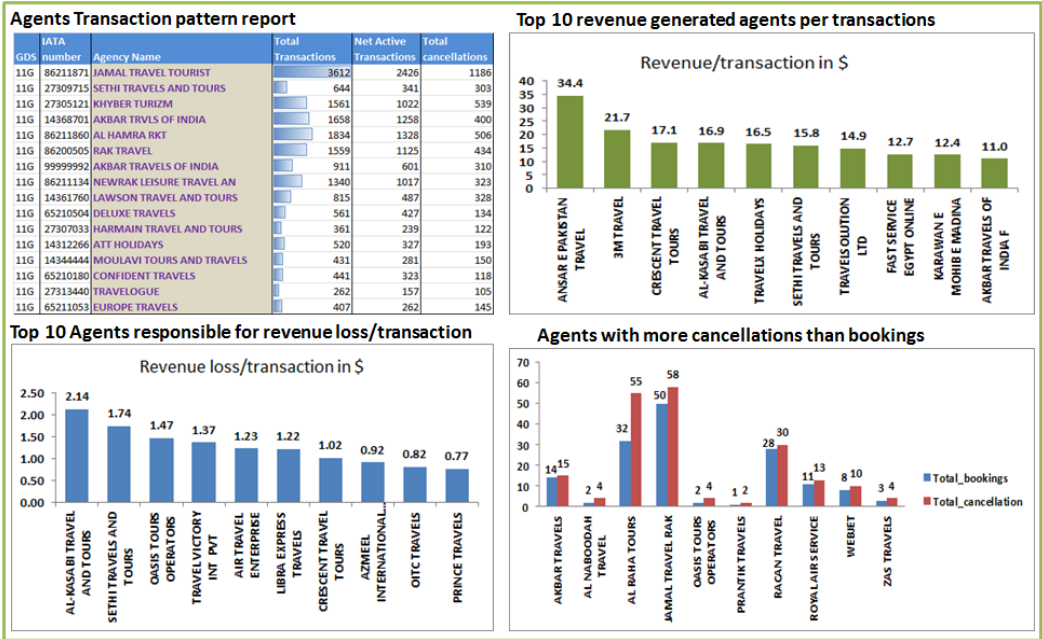


	countries based on transactions and costs.
Class wise performance report	Lists out the booking class performance of airlines in terms of bookings and cancellations.
Seasonality trend reports	Lists out the day-in-week and time-in-day performance reports of flights. This helps in identifying new growth opportunities and better planning of supply chain management.
Large party bookings report	Gives the details of large parties in terms of bookings and costs.
GDS performance report	Lists out the GDS performance based on transactions, costs and fraudulent activities.
Code share flight performance report	Gives the details of code share flights in terms of transactions and costs.
Itinerary wise performance report	Lists out the transaction and cost details of itinerary.

## Sample outputs: Audit Analytical reports



# Sample Output: Advanced Analytical reports (Agency wise performance report)



## Conclusion:

Happiest Minds AirAudit Solution can deliver more than 50 standard analytical reports using BIDT data. It can be customized to cater to the specific requirement of each client, and can deliver extensive ad-hoc reports and dashboards. The data can be further sliced and diced, using our proprietary data mining algorithms and methods which will help the airlines optimize their strategy, improve significantly on the ROI, reduce unnecessary distribution costs and increase customer satisfaction.



To learn more about the **Happiest Minds Travel Industry Analytics offerings**, please write to us at [business@happiestminds.com](mailto:business@happiestminds.com)

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## About Happiest Minds

Happiest Minds is a next-generation IT services company helping clients differentiate and win with a unique blend of innovative solutions and services based on the core technology pillars of **Analytics, Social, Mobility and Cloud**. We combine an unparalleled experience, comprehensive capabilities in the following industries: **Retail, Travel and Hospitality, Media, CPG, Manufacturing, Banking and Financial services** with pragmatic, forward-thinking advisory capabilities for the world's top businesses, governments and organizations. Founded in 2011, Happiest Minds is privately held with headquarters in Bangalore, India and offices in the USA, UK and Singapore.

## About the authors

**Sethuraman Janardhanan, PhD**  
(<mailto:Sethuraman.j@happiestminds.com>) is manages Retail, Travel and Online Analytics at Happiest Minds. Sethu's primary areas of expertise include marketing, risk, & web analytics for consumer focused verticals like Finance, Retail, Travel and Technology. Sethu holds a PhD in Systems & Finance from Indian Institute of Management Calcutta and is a regular guest speaker on Analytics and Strategy.

**Rammurty Kommajosyula**  
(<mailto:Rammurty.vs@happiestminds.com>) is the Lead Analyst of the Happiest Minds Analytics Practice. He has extensive experience in building appropriate analytical solutions to different clients using reporting & statistical modelling techniques & tools.

