Ramco Systems

Park/ Taxi	Take-Off	Depart/Climb	En-Route	Approach	Landing	Park/ Taxi
• Out • Link/Test Clk • Updates • Fuel Reports • Crew Info • Delay Reports	• Off • Engine Data	• Engine Data	• Position Reports • Weather Reports • Delay Information • ETA • Performance Reports • Voice Requests • Engine Data • Maintenance Information • Oceanic ADS	• Gate Info • Requests • ETA • Special Requests • Engine Data • Maintenance Information	• On	• In • Fueling Data • Crew Information • Fuel Reports
ROM AIRCRAFT						
O AIRCRAFT						
• PDS • ATIS • DDTC • Weight & Balance • Flight		• Weather Reports	• Re-Routing Information	• Re-Routing Information • TWIP • Oceanic Clearances	• Gate Information • Passenger Information • Crew Information	

AIRLINES & ANALYTICS

HOW THE AIRLINE INDUSTRY USES DATA TO FLY HIGHER

To stay ahead of the curve in a highly competitive industry. Airlines leverage a wide range of data and analytics techniques. The end goal is to maximize revenue and reduce costs. As you can see these are big numbers.

COST REDUCTION

US$22 billion

The air transport industry has saved over $22bn in the past nine years, thanks to improvements in baggage handling and a big reduction in lost or mishandled bags.

BAGGAGE MANAGEMENT

Airlines are very concerned about baggage handling metrics like lost bag tally, RLAs. They rely on real-time baggage tracking data to avoid losing, damaging or delaying bags and face compliance issues.[1]

US$20 to $30 million

Increase in annual revenue when Airlines use big data and analytics to optimize fares and predict price change.

YIELD MANAGEMENT & PRICING

Insights from structured and unstructured data from internal & external data sources to understand competitive actions, price sensitivity and patterns. Airlines use this to balance profitability and load factor.[2]

2% to 7%

Reduced fuel consumption annually with data driven Dashboards.

FUEL MANAGEMENT

Airlines track real-time fuel consumption data on Dashboards from take off to landing. This monitoring is crucial to be ultra-efficient in reducing fuel costs and airline emissions.[3]

US$25 Billion

Airlines and Airports can save annually from flight disruptions by harnessing artificial intelligence, cognitive computing, predictive analytics and other progressive technical capabilities.

CREW PERFORMANCE & GROUND HANDLING

Crew Cost is the 2nd largest expense category for Airlines. What if schedules, optimized rosters and real-time alerts on crew rate behavior help Airlines improve crew utilization, efficiency and transparency.[4]

$7Million per year

With 560,000 AOG incidents each year, airlines can be exposed to $7 million annually in Aircraft on Ground (AOG) costs.

AIRCRAFT MAINTENANCE AND RELIABILITY

Predictive Analytics helps Airline Carrier in conductive prognostic maintenance. This, improves predictability on procuring parts inventory, fleet reliability and reduces huge operational costs.

REVENUE MAXIMIZATION

38 Touchpoints

Travellers visit up to 38 different websites before booking a trip.

Airlines segment customers, target with personalized offers, optimize pricing in real-time using predictive analytics techniques such as modeling and forecasting.[5]

$762 billion

Worldwide Digital Travel sales is predicted to reach $762 billion by 2019.

Marketing automation blends with advanced targeting and analytics abilities to analyze channel performance, media spend, goal conversion, campaign performance to improve cross-selling and upselling.[6]

43%

Of the airline passengers rely on online reviews of different airlines before booking a ticket.

Text Mining & Analysis helps Airlines in proactively understanding customer sentiments, predicting safety and maintenance issues. Valuable insights from this analysis help in improving the bottom line.[7]

US$582 million

will be the ROI in 18 months if a Large carrier invests 5% extra on customer experience.

Big Data Analytics helps Airlines capture real-time customer behavioural data from multiple touch points and process structured and unstructured data sources to improve overall customer experience.[8]

Loyalty programs influence

64% Consumers on where they make purchases

50% On what they buy

Airlines invest a lot in creating data modeling, Balanced Scorecards and retention analytics for tracking Loyalty value and engage passengers with offers in real-time across FFPs and co-brand card programs.[9]

Source

1. Air Transport IT Review, SITA Publication, Issue 1, 2015/2016 | August 21
2. Big data and analytics in travel and transportation, Beyond the hype, Solutions that deliver big value to SMP
3. Boeing Wants Boeing Aerospace Data Analytics Applications, and It's the Airlines
4. SITA Air Transport IT Review
5. The Last Leader Worldwide Increase of Airlines Business
6. Deloitte, The Path to Purchase for American Airlines and Canadian Travelers
7. Airline Research Report
8. Worldwide Digital Travel Sales Attributed a Updated Estimates and Forecast Through 2019 & 2020 (2015-2019)
9. Economic Research (2015), The Loyalty Program Participants Are at
10. Top Airlines Europe

How come cheap airlines are so cheap?

Fastest growing segment of air travel are low fare airlines (LFAs), sometimes called low cost companies (LCC). LFAs now constitute 35% of scheduled intra-EU point to point traffic – and the cheap flights revolution in Europe only started in 1990 by Ryanair. In the USA it was the Southwest Airlines that has led the attack against high flights prices since 1971.

Low cost airline

Regular airline

So how cheap are the cheap flights? Average fare (€)

Ryanair	Easyjet	Air Lingus	Southwest	Lufthansa	Air France	British Airways
44	65*	94	106,60*	235	267	324

Higher seat density – 737-300: **148** seats, single class cabin

128 seats in a regular one

Fast turnarounds (up to 25 min.) – higher utilization of the plane

Turnaround slowed down by use of major airports with large amount of traffic (approx. 45 min.)

Direct flights – point to point, no transfers, short routes

Transfers, long hauls

Smaller airports – cheaper; simple ground facilities

Bigger airports – more expensive

Tickets sold directly, mostly by Internet (easyJet – 93%)

Many tickets sold by travel agencies, incurring extra charges

No frills – no additional costs

Entertainment programme, quick check in, lounges, paper tickets, business class, catering

Standardised fleet (only one aircraft type) – cheaper maintanence, training

Various aircraft

High variable-proportion of salary (up to 26 %), better HR utilization

High basic salaries (variable proportion up to 11 %), trade union affiliation

The case of extreme productivity

Passengers per employee:

Easyjet: 6772

Ryanair: 9679

British Airways: 735

Air France/KLM: 715