Advanced Analytics for the Airlines

QUAD OPTIMA V1 AND V2

SEPTEMBER, 2020

QUAD OPTIMA is a practical Revenue Management & Sales product designed for the 3 levels of airlines (C-level, Managers and Workbench staff).

Accurate Route demand informed Insights available to the entire airline.
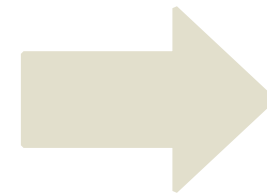
Quad Optima

ADVANCED ANALYTICS FOR AIRLINES

It's a solution for the failure of *time series* to properly project future demand and optimize inventory

WHAT IS QUAD OPTIMA?

➢ Long historical "Time series" is not *cutting it* anymore.

➢ Above all because markets change to much year on year

➢ Most importantly 80 plus % of sales are coming at a peak sell window of 12 weeks prior to flight departure.

➢ Complex RM business such as O&D vectors demand huge increase in staff due to complexities.

➢ Quad inverts *BIAS* and values Instead changing drivers behavior.

➢ Puts the bar higher on what the optimal really is.

➢ insights are paramount to correctly inform your POS and O&D sale behaviors and inventory

➢ QUAD OPTIMA is more sensitive to market and flight inventory behavior

The hard reality is that each new Sales year takes a performance of its own making.

And QUAD OPTIMA learns, faster, much faster (Bayesian and Monte Carlo at its best)

AIRLINES NEED TO
1. SURVIVE IN COVID ERA CHAOS
2. THRIVE IN POST COVID GROWTH

WHY QUAD OPTIMA?

Quad Version 1 – Survive Covid

- ➤ Amazing O&D level Forecast and Optimize Insights

- ➤ For a price that is a fraction of Big Vendor price

- ➤ Sweet Spot : Small airlines who don't have an elaborate IT Portfolio and are desperate

Quad Version 2 – Thrive post Covid

- ➤ Complete Airlines Digital Transformation

- ➤ First Commercial Digital Twin

- ➤ Sweet Spot : Large and Medium airlines who want to win

DATA SCIENCE
The future is Tensor flow & Machine Learning libraries

Increase dimensions & complexities of the *input record*

Machine Learning & Artificial Intelligence

This Core issues will only be solved with - Airline Digital Twins

QUAD DEVIATES FROM OPERATION RESEARCH-BASED SYSTEM

WHY QUAD OPTIMA?

QUAD OPTIMA corrects the difference between *reality observed* and revenues needed to make the targets.

- Born of Data Science / AI and ML DNA
- Advanced Mathematics using Calculus, Linear Algebra, Probability and Statistics
- New wave which makes the old Operations Research based systems obsolete
- Designed with deep academic collaboration
- Fully developed Cloud Native SaaS product.
- Deployment is totally Hassell free – ready in weeks for quickest POC
- Version 2 will feature the industry's first Commercial Digital Twin

Because there are too many variables at play in each of those markets and fast sensing changes is crucial these days.

QUAD OPTIMA

- ➤ Feeds on ready-to-use data that airlines have (PNR feeds, Inventory bulk files, pricing, revenue accounting, etc).
- ➤ Uses superior Data science algorithms for Hyper-Dimensional Forecast and Optimization outputs
- ➤ Outperforms competition on the sell window, specially in the 12 week prior to flight departure

QUAD OPTIMA does it for a fraction of the price!

AI / ML SYSTEM FOR C-SUITE AND ANALYSTS

A

Data Science based system designed for Top Management to get into the game of directing Actions for Revenue Improvements

B

Teams have the same system and insights as Management – At much more granular levels. Ensures total organizational alignment top to bottom and across departments

Strategic View

C level and Senior Managers

➢ Run C-level meetings with drill-downs from Markets to flight level

➢ Change any inputs , run simulations and store scenarios and recommendations

➢ Cross Departmental meetings are run with single system which has the single version of the forecasts and optimal actions

Work Bench View

Managers & Staff

➢ A daily detailed workbench output file with all the relevant flight steering actions for RM

➢ .Detailed sales actions output file to serve Sales and Marketing actions.

➢ allows Flight steering staff to run simulations for flights under their management.

➢ Accurate Route demand information is available to the entire airline

Its time to:

No need to cut down walls and Floors in your organization. All are aligned due to this one system

FIVE BULLET POINTS…

- QUAD OPTIMA is a practical Revenue Management & Sales **product designed for the entire airline, useful for all 3 levels of management** (C-level, Managers and Workbench staff). It provides a**ccurate Route demand information** whatever the required granularity .

- QUAD gathers, calculates **current (what you have today), forecasted (what you will have if you do nothing) and optimal (what you will have if you take the best actions) Revenues, and makes them available to ALL**. This **one** system, this **one shared source of data** forces the airline out of silos and **all levels to be aligned** and agree, or disagree, with the optimal revenue as calculated by QUAD. Appropriate corrective actions are just one step further – No need to cut down *Walls and Floors* in your organization.

- Before Covid 19, historical *Time series* products airlines used to forecast demand had shortcomings. Quad Optima could help fine tuning **figures at peak sales period of 12 weeks prior to flight departure** and improve the Inventory optimization. After COVID-19 traditional forecast products end up useless, and QUAD still perfectly does the job : the tool is **perfect for these challenging times**.

- Using Bayesian and Monte Carlo at its best - **QUAD OPTIMA learns faster**. Trial and error can be avoided in this blurry period : let QUAD algorithms **figure out what the "*Optimal*" (beyond current and forecast) really is. And go for it.**

- **Designed with deep academic collaboration**, fully Cloud Native SaaS, based on standard airline PSS data product : the solution is hassle free and very easy to implement - An operational POC can be ready **within week**s.

HAVE A CHAT WITH US

Do a deep dive with us on the product.

Take advantage of a POC (proof of Concept) and test drive QUAD OPTIMA for a 3 month period!

We are Revenue Managers and Sales analyst: <u>Free Consultancy</u> for the POC period.

THANKS

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