The corner stones to develop a Dynamic Offer Management in the Airline Industry

AGIFORS Revenue Management SG Meeting 2019

Dr. Jost Daft & Dr. Matthias Viehmann

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Panama

Agenda

1 > The concept of Dynamic Offer Management

2 > The corner stones to develop a Dynamic Offer Management

3 > The way ahead

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The price is not enough: customer-oriented retailing offer strategies to drive value capture based on dynamic bundling

Dynamic Pricing (i.e. charging different customers different prices for the same set of product*) is nowadays heavily used in several industries…

*e.g. Wittmann & Belobaba, 2016; Chen et al., 2016

….but the price is not any longer enough to drive value capture

Several industries outside the travel arena have introduced customer-oriented offer strategies

Examples

Insurance	MetLife
Retail Banking	ING DiBa
Telecommunication	vodafone

Major proposed benefits from customer-oriented offer strategies

- Better meet customer expectations
- Increase customer retention
- Avoid commodity trap by offering more customized products
- Improve cross-selling of products

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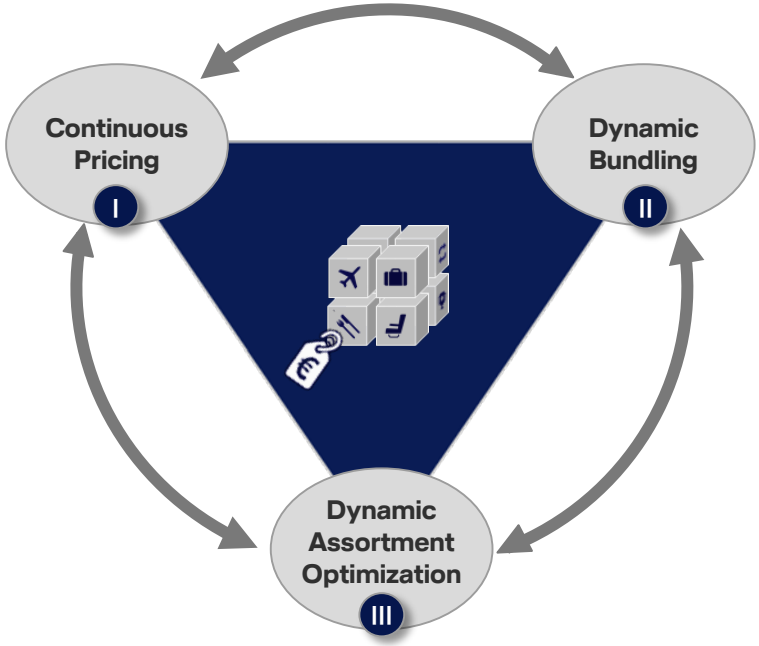
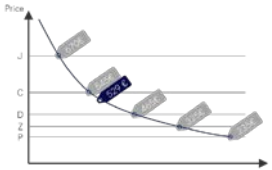
A holistic framework for customer-oriented retailing offer strategies: Dynamic Offer Management*



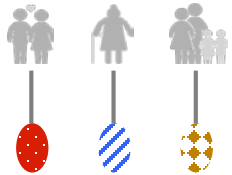
I Continuous Pricing

"Dynamic [calculation of] the optimal price, taking into account the airline's strategy, customer-specific information, [...]" (Fiig, 2015)



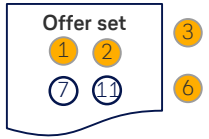
II Dynamic Bundling

Real-time creation of product bundles based on customer shopping request and contextual segmentation



III Dynamic Assortment Optimization

Dynamic optimization of priced product bundles displayed to customers based on request information and purchase point specifics



*see Viehmann, Daft (2018) and Stabenow, Albers, Daft (2017)

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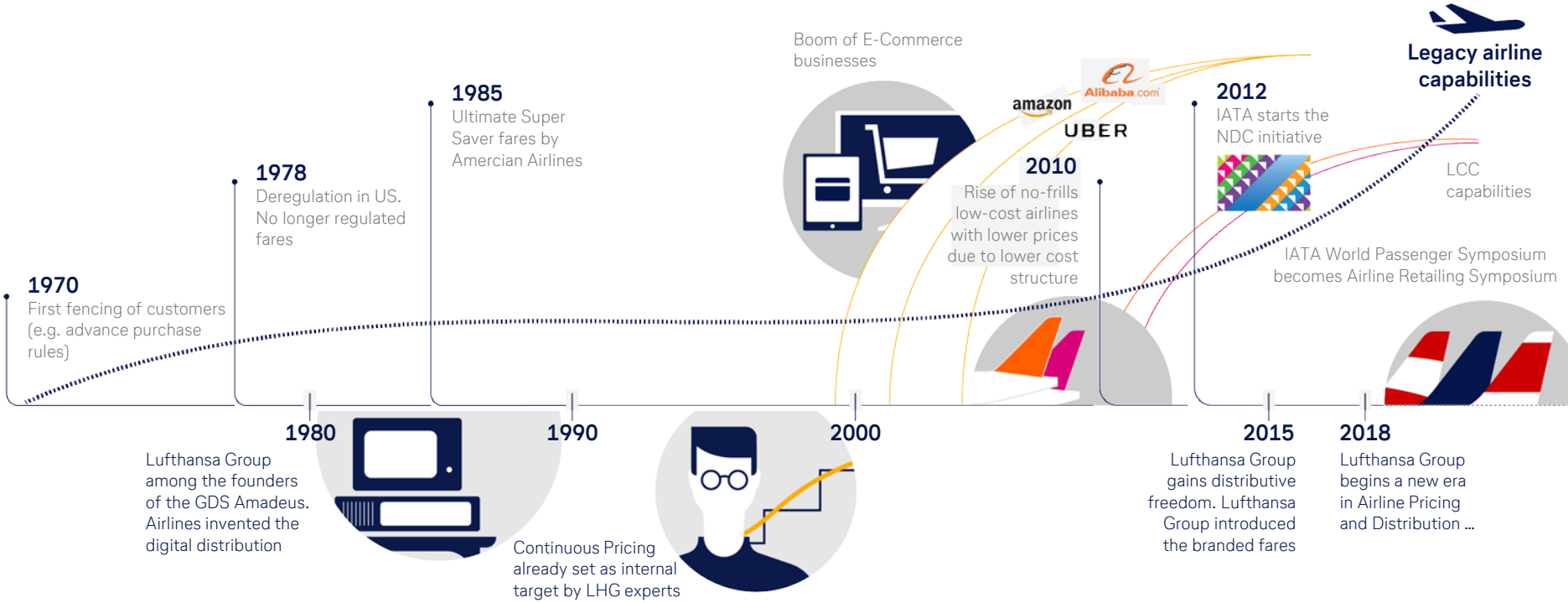
The airline industry has finally started to advance its Revenue Management into Dynamic Offer Management to catch-up with digital players

Airlines invented E-commerce in the 1960s and 70s but got surpassed by new E-Commerce businesses over a decade ago



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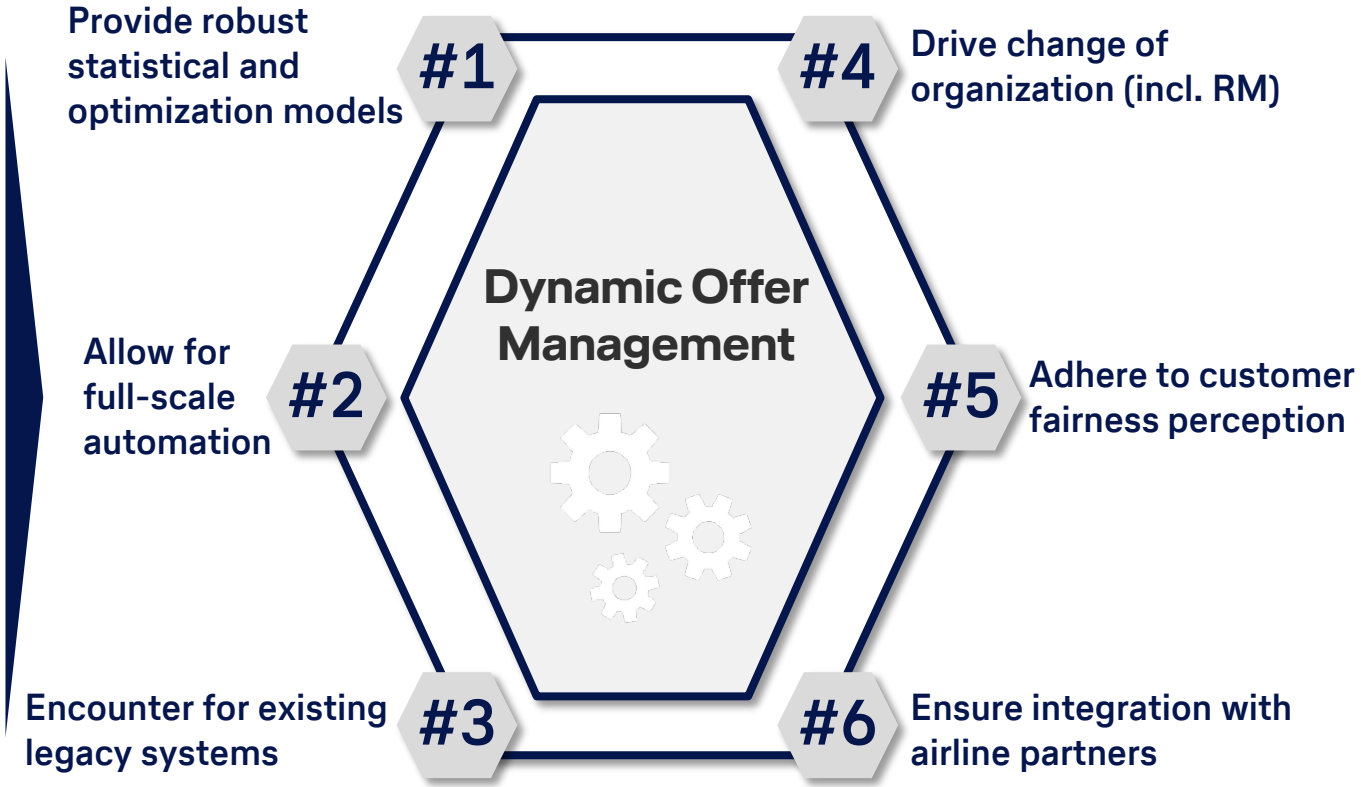
For the development of Dynamic Offer Management at an airline we have identified six major decisive corner stones

Based on qualitative research (e.g. considering observable industry actions and cross-industry comparisons) we have identified **six, partly cross dependent** and equally weighted **corner stones*** **that determine the development of a Dynamic Offer Management** at an airline



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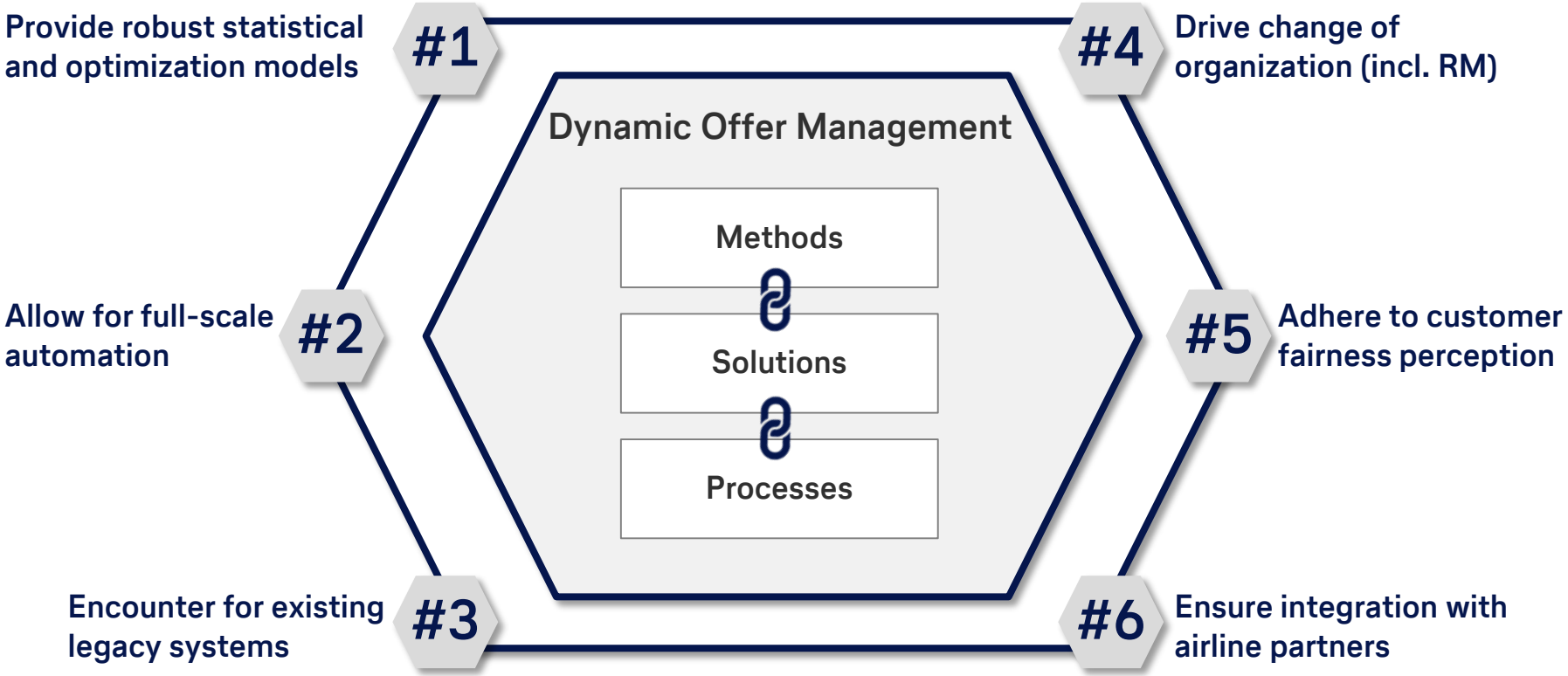
The six identified corner stones call for triad “Methods, Solutions, Processes” to develop the next generation Dynamic Offer Management



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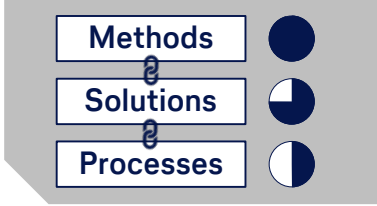
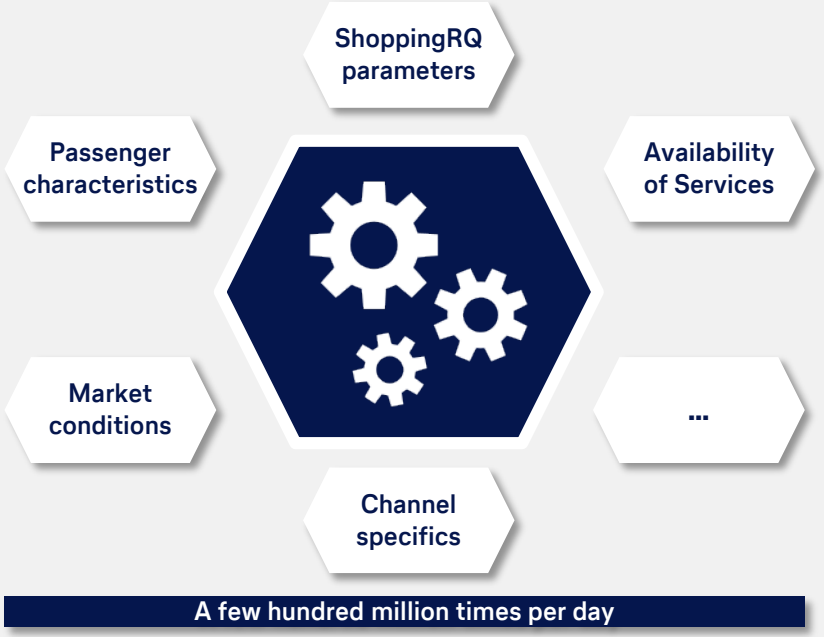
#1 Provide robust statistical and optimization models
Enable real-time application



Enable real-time calculation of offers considering multiple contextual input factors



Major determinates

> Basis it to disentangle capacity allocation (bid price) and profit optimization (margin)

> The models need to allow for a dual approach: content (at the beginning) via pre-defined rules and prices via algorithms

> The inputs for X-PE estimation models require experimental approach

> The models need to allow for continuously adding further dimensions to the segmentation and elasticity estimation

> The models need to be adjustable (controllable) by the user

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#2 Allow for full-scale automation
Be aware of the arising complexity and manage it

Methods
Solutions
Processes

The current FORD FOCUS can be configured with 40.000.000.000.000.000 (40 Quadrillion) combinations

Picture: Ford Germany

...neither the customer nor the user can handle this complexity in an efficient way

Already today LHG is pricing 134,000+ ODs per day

Validation of forecasts (X-PEs) need to account for the growing number of combinations!

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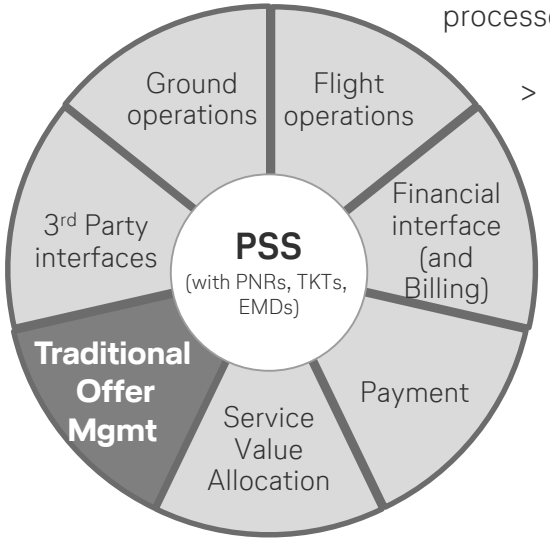
#3 Encounter for existing legacy systems: Disentangle the offer management from the legacy solutions

Methods
Solutions
Processes

Today: Order Mgmt determines the Offer Mgmt



> Build on pre-internet processes and systems

> One monolithic solution for various functions (incl. Offer Management)

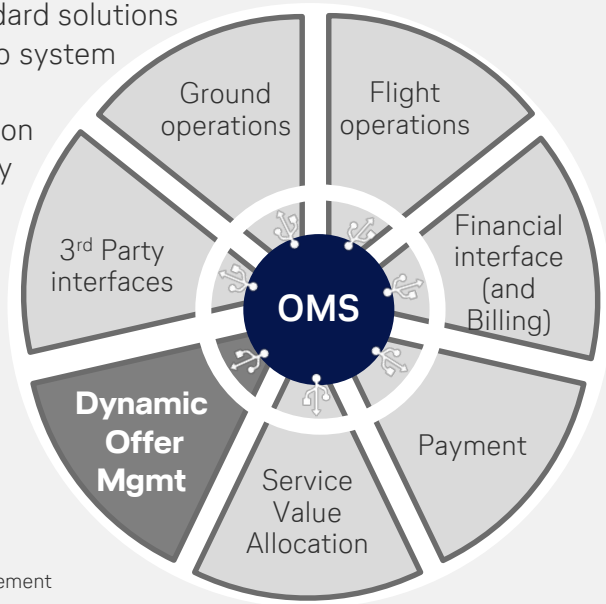
> New offer creation methods and processes are limited by the current technology

Tomorrow: Offer Mgmt driven by own innovation cycle

> Based on standard solutions to open the eco system

> Adaptive solution that can flexibly adjusted to new methods and processes

> Full support of modern retailing and joint offer creation



OMS Order Management System

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#4 Drive change of organization (incl. RM): A superior IT solution is not enough

Methods
Solutions
Processes

Today´s RM organization setup

- Entire processes and thinking build around pre-defined offers (e.g. with ATPCO filed fares)
- Involved commercial processes that need to provide input for an offer (e.g. product, marketing, sales) still acting in silos
- Contradicting goals (e.g. capacity utilization vs. customer view vs. profitability)
- Vast RM competencies but limited merchandizing expertise

Building a Dynamic Offering Organization

- Commercial processes transform their individual targets into a framework of rules
- From full control per price point to control of framework
- Framework defines hierarchy of multiplex rules
- Account for multiple cross-functional responsibilities for setting the offer rules and price
- Empowering (RM) people by investing into digital merchandizing competences and (re-) training new skills

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#5 Adhere to customer fairness perception: Don´t mess with the customers

The customer is evermore well informed about our offers

Define key principles to not mess with the customer

- Set clear boundaries that control the automatized offer creation (see e.g. AB case)
- Prove your data protection reliability and convince the customer about benefits of sharing data
- Identified customers get rewarded with better offers instead of penalized with higher prices
- Balance customer expectations and margin goals (mix of positive and negative X-PEs)

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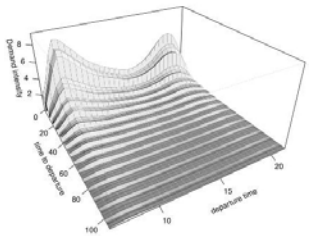
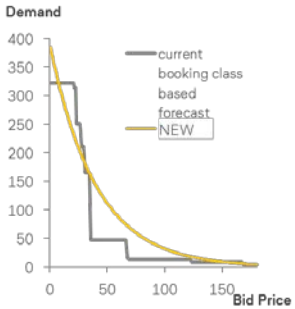
#6 Ensure integration with airline partners: De-couple the own offer creation from partners´ solutions

Methods
Solutions
Processes

Dynamic Offering





> Continuous Pricing
> Ancillary Services & Bundles

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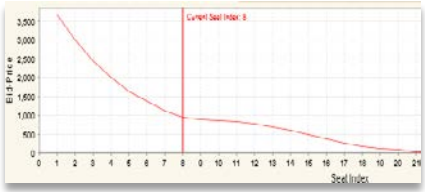
Order Management System

Offer Management System Airline Partner



A	120 €	30
B	121 €	30
C	122 €	30
D	140 €	8
E	150 €	7
F	155 €	7
G	170 €	0
H	199 €	0
I	233 €	0

> Whatever offer creation solution is used (e.g. RBD-based, Excel-based, etc.) for pricing

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Order Management System

Exchange ready to purchase offers in a universal way instead of delegating offer creation: Each airline can build its own offer creation solution according to its individual needs

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The way ahead: be bold to drive the r/evolution of Dynamic Offer Management in the Airline Industry

> Further support the industry moving towards NDC (with interline) and ONE Order!

> Learn from other industries (not only for methods but also for mindset) and recruiting people from outside the airline industry!

> Encourage (airline and none-airline specialized) providers to further develop Dynamic Offer Management!

> Re-think booking flows from customer perspective!

> Leverage the existing data and look for people with data science expertise!

> Be aware of potential new competitors!

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Thank you!

Muchas gracias!

Vielen Dank!

Merci!