TURKISH
AVIATION
ACADEMY

İTÜ

Aviation Economics & Finance

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Istanbul Technical University
Air Transportation Management
M.Sc. Program

Module 9: 25 November 2015

OUTLINE

A. Introduction to airline distribution

B. Passenger distribution

  B.1 Traditional distribution channels

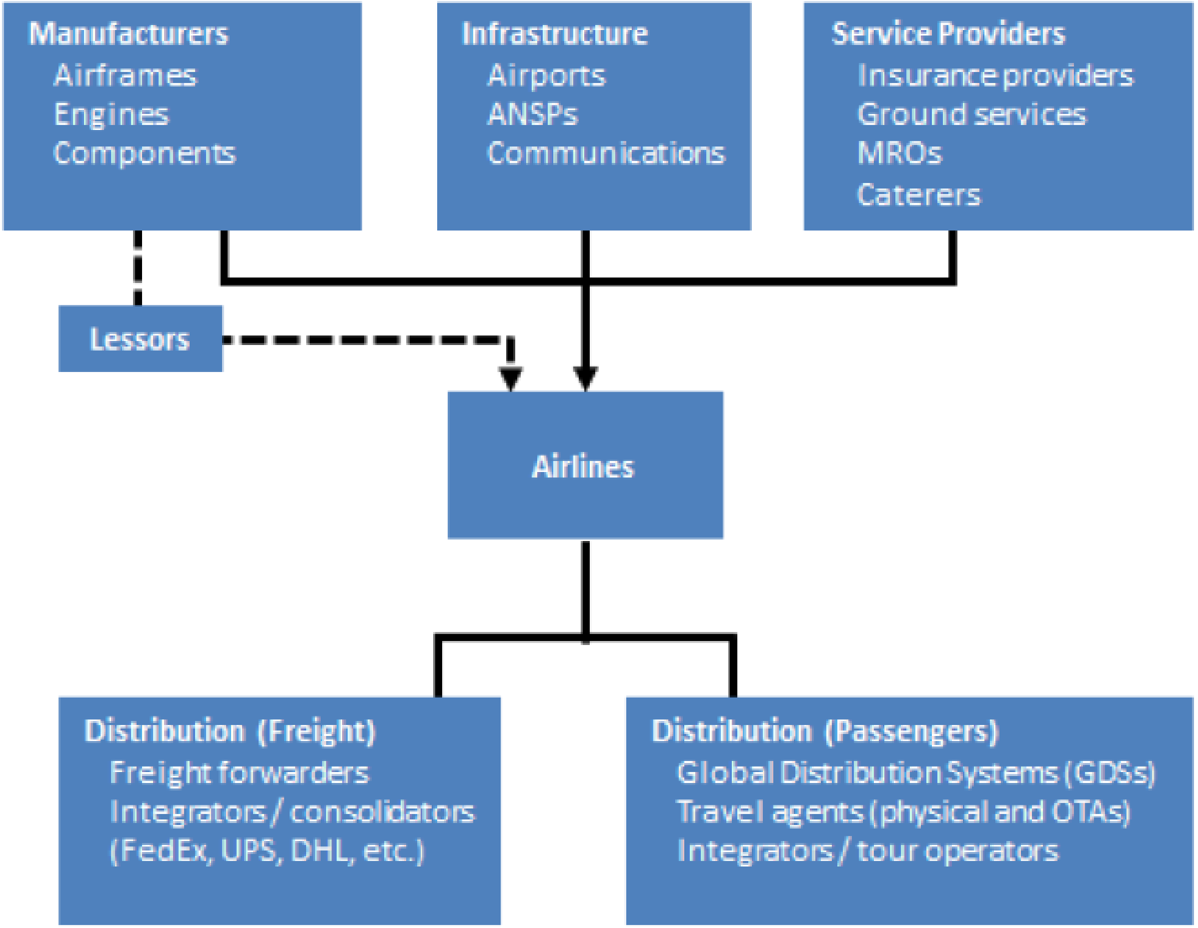
  B.2 New distribution channels

  B.3 Issues in airline distribution

C. Cargo distribution

A. INTRODUCTION TO AIRLINE DISTRIBUTION (SALES)

THE AVIATION VALUE CHAIN



Manufacturers
- Airframes
- Engines
- Components

Infrastructure
- Airports
- ANSPs
- Communications

Service Providers
- Insurance providers
- Ground services
- MROs
- Caterers

Lessors

Airlines

Distribution (Freight)
- Freight forwarders
- Integrators / consolidators (FedEx, UPS, DHL, etc.)

Distribution (Passengers)
- Global Distribution Systems (GDSs)
- Travel agents (physical and OTAs)
- Integrators / tour operators

THE DISTRIBUTION SEGMENT OF THE VA

Highest return on capital in the value chain

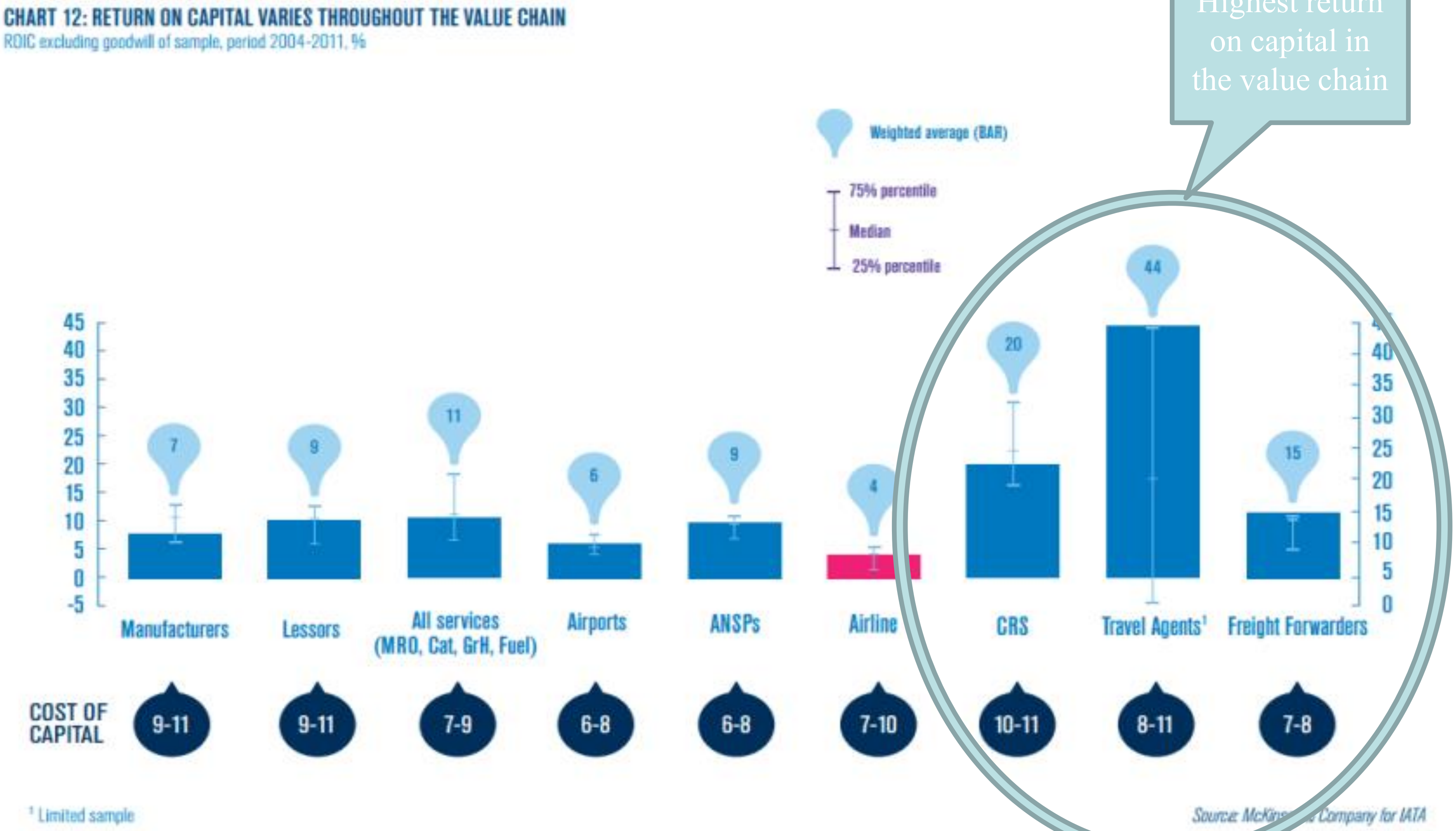


CHART 12: RETURN ON CAPITAL VARIES THROUGHOUT THE VALUE CHAIN

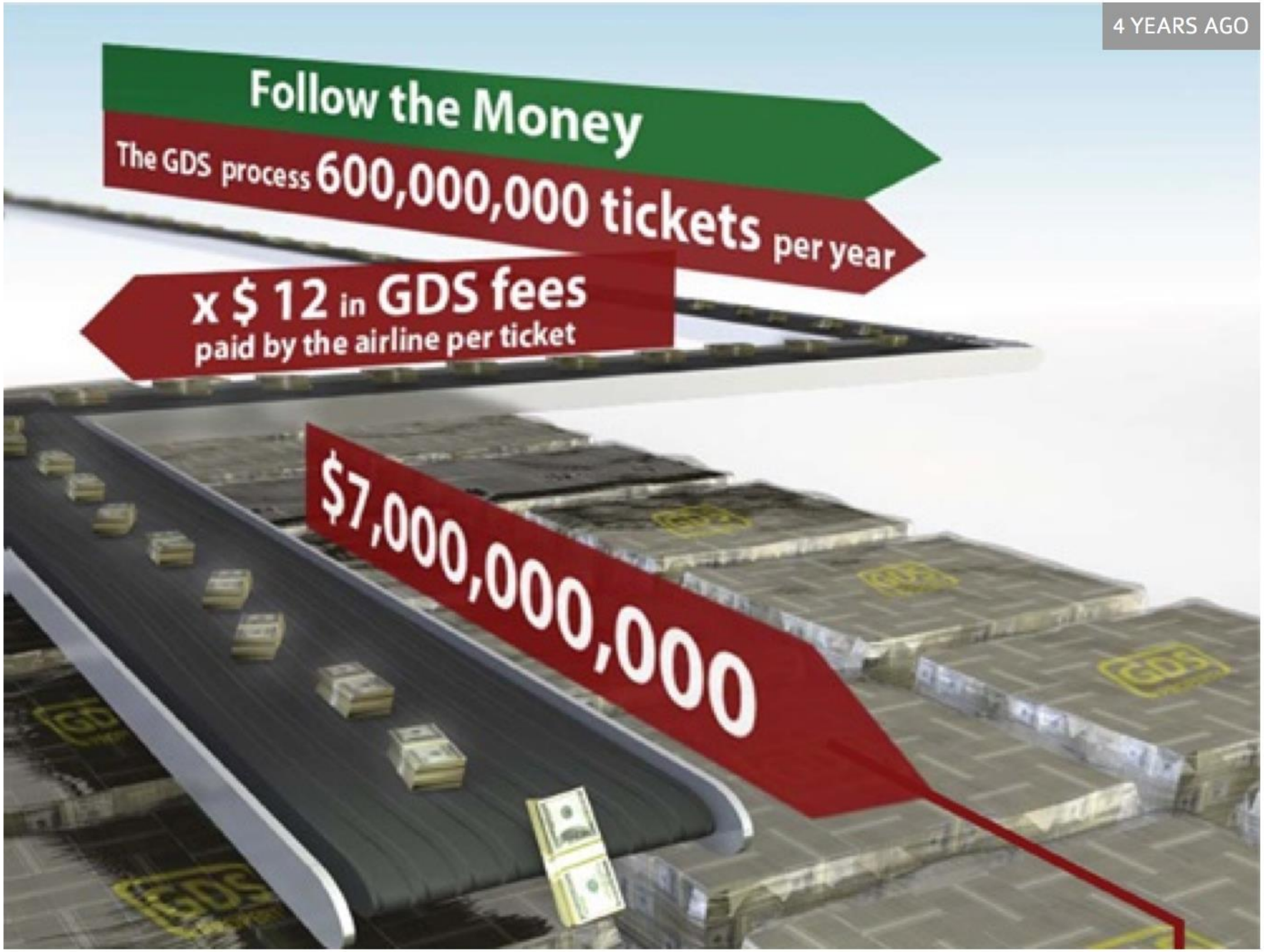
ROIC excluding goodwill of sample, period 2004-2011, %

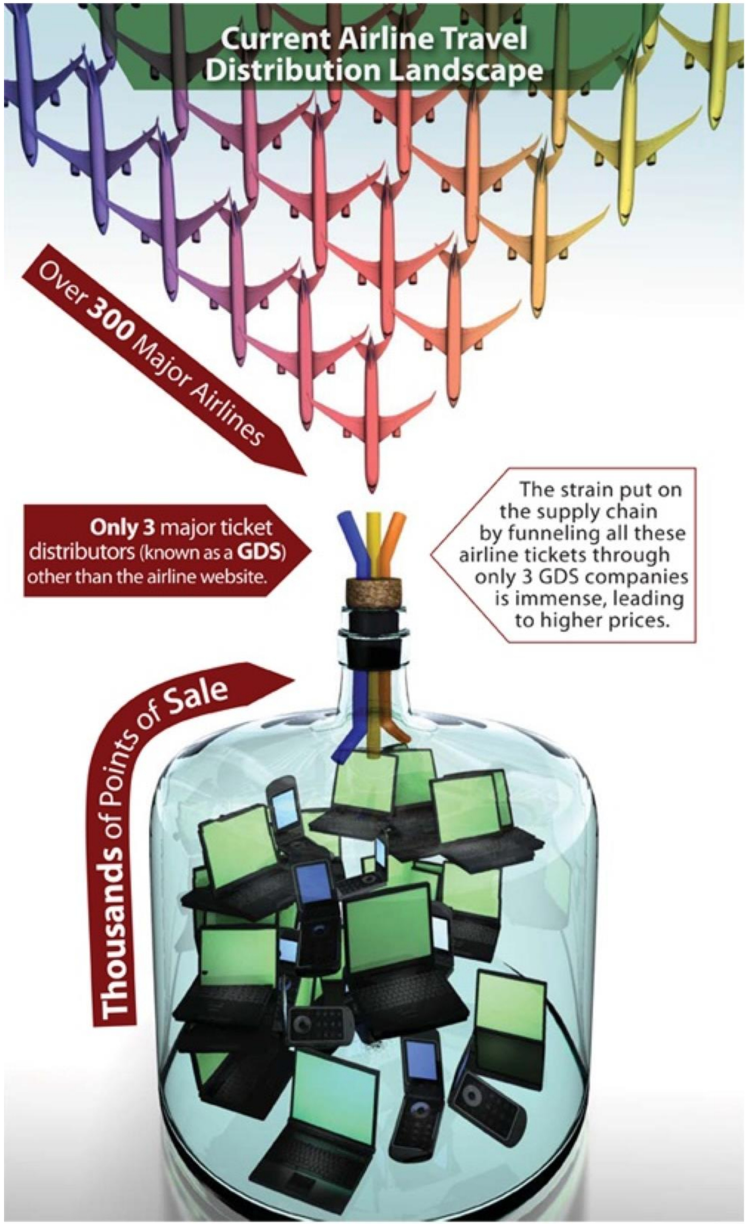
¹ Limited sample

Source: McKinsey & Company for IATA

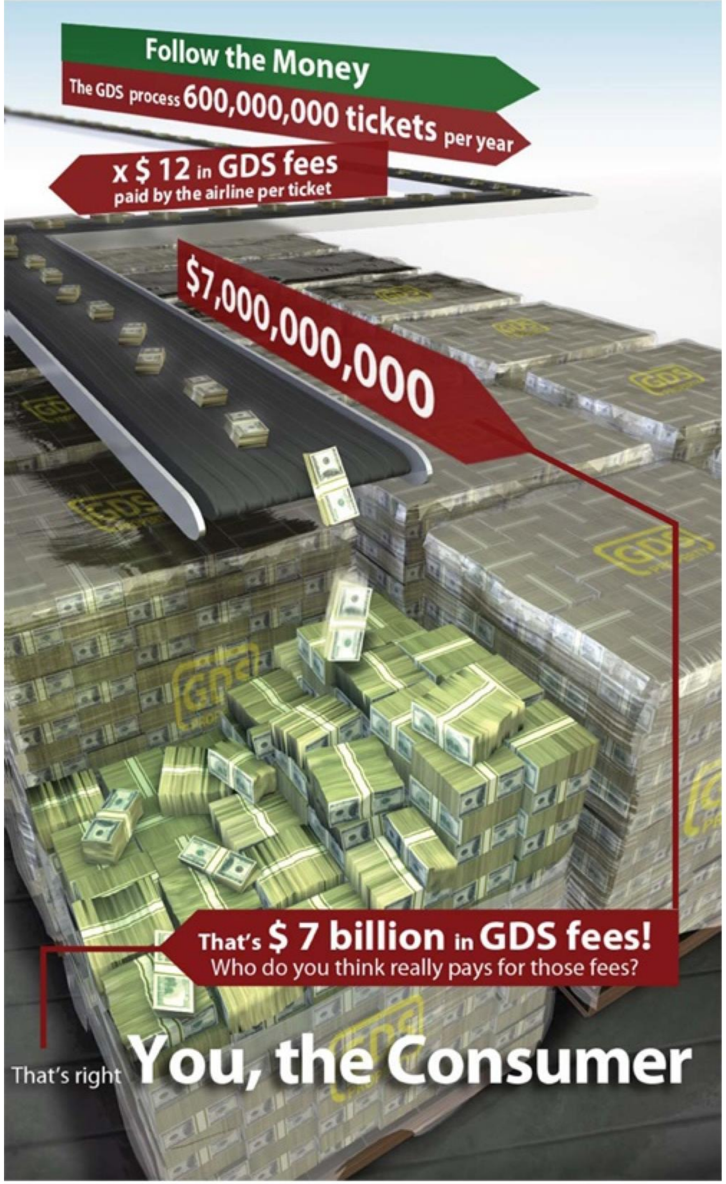
Source: IATA

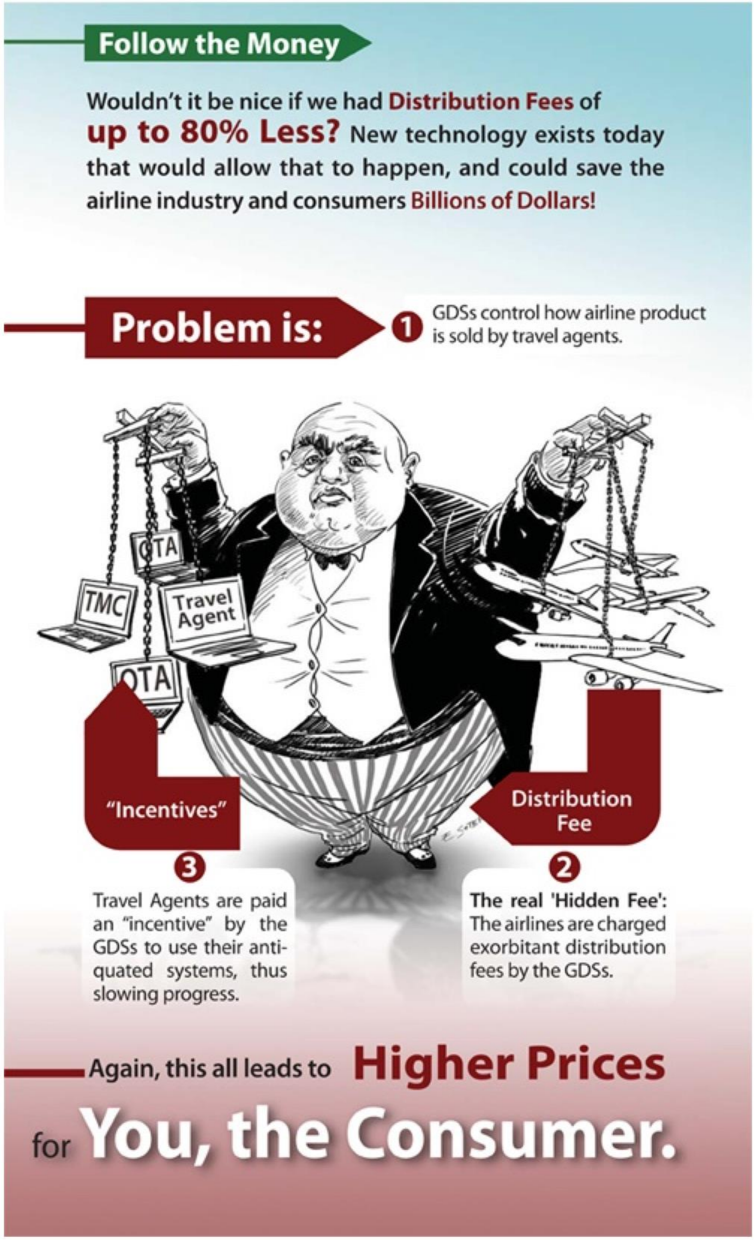
November 23-28


4 YEARS AGO
Follow the Money
The GDS process 600,000,000 tickets per year
x $ 12 in GDS fees
paid by the airline per ticket
$7,000,000,000
GDS



Current Airline Travel Distribution Landscape
Over 300 Major Airlines
Only 3 major ticket distributors (known as a GDS) other than the airline website.
The strain put on the supply chain by funneling all these airline tickets through only 3 GDS companies is immense, leading to higher prices.
Thousands of Points of Sale


Follow the Money
The GDS process 600,000,000 tickets per year
x $ 12 in GDS fees
paid by the airline per ticket
$7,000,000,000
That's $ 7 billion in GDS fees!
Who do you think really pays for those fees?
That's right You, the Consumer
GDS



Follow the Money

Wouldn't it be nice if we had **Distribution Fees** of **up to 80% Less?** New technology exists today that would allow that to happen, and could save the airline industry and consumers **Billions of Dollars!**

Problem is:

❶ GDSs control how airline product is sold by travel agents.

❸ Travel Agents are paid an "incentive" by the GDSs to use their antiquated systems, thus slowing progress.

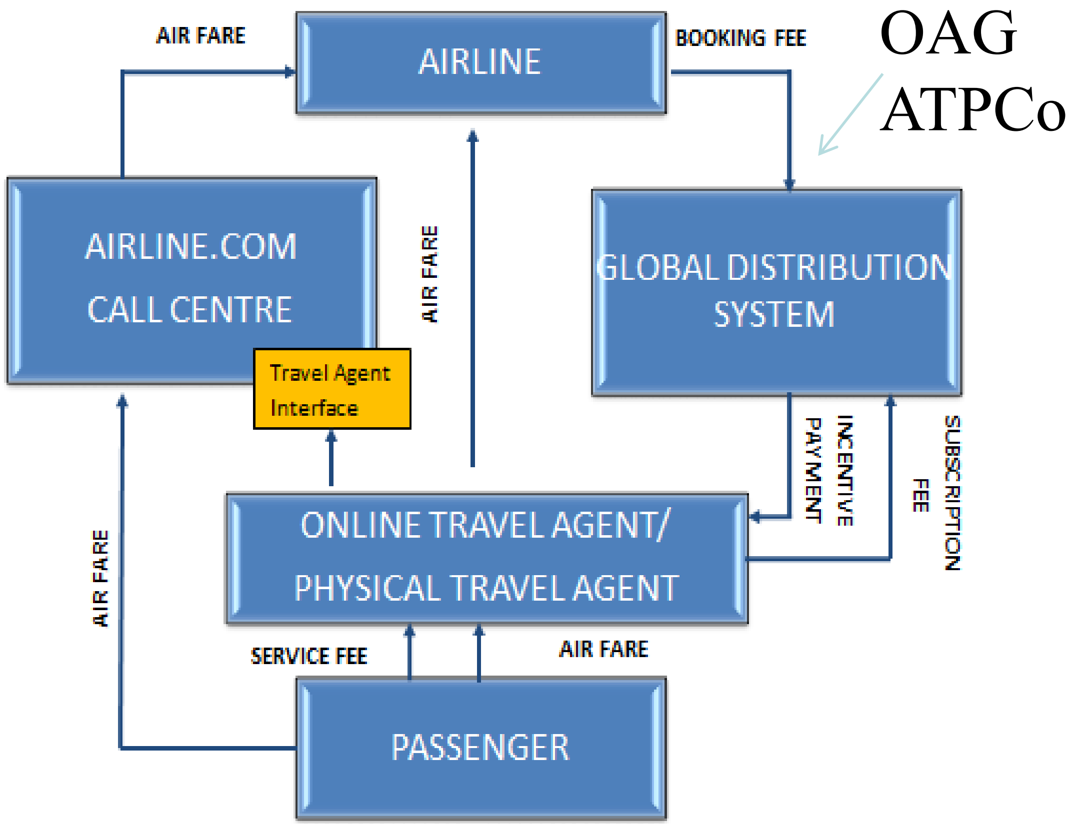
❷ **The real 'Hidden Fee':** The airlines are charged exorbitant distribution fees by the GDSs.

Again, this all leads to **Higher Prices** for **You, the Consumer.**

B. PASSENGER DISTRIBUTION

MAIN PLAYERS IN THE DISTRIBUTION SEGMENT

- **Global Distribution Systems (GDSs)**
  - Successors of Computer Reservation Systems (CRSs)
  - Store and distribute information on airline schedules, fares and seat availability
  - Source information from airlines, OAG and ATPCO
  - Facilitate transaction
- **Travel Agents**
  - Physical travel agents (Brick & Mortar)
  - Online travel agents
- **Airlines**
  - Sell tickets directly to passenger via websites or partnerships with OTAs
  - Or via GDS-powered channels
    - Airlines pay a booking fee on a flight segment sold via a GDS-powered channel



OAG
ATPCo

THE ROLE OF TRAVEL AGENTS

- **IATA agents have access to all IATA airlines**
    - Airline access to 50,000 travel agents to sell product
    - Very efficient, financial protection, knowledgeable sales agents
- **Price comparison**
    - common and unbiased (??) sales agent for airline tickets
- **Ticket processing**
    - complex international itineraries
    - interline tickets
- **Information and expertise for consumers**
    - consumers who do not have access to the Internet
    - specific consumer groups (corporate business travel, government agencies, etc.)
    - Corporate travel departments must work through an accredited travel agent

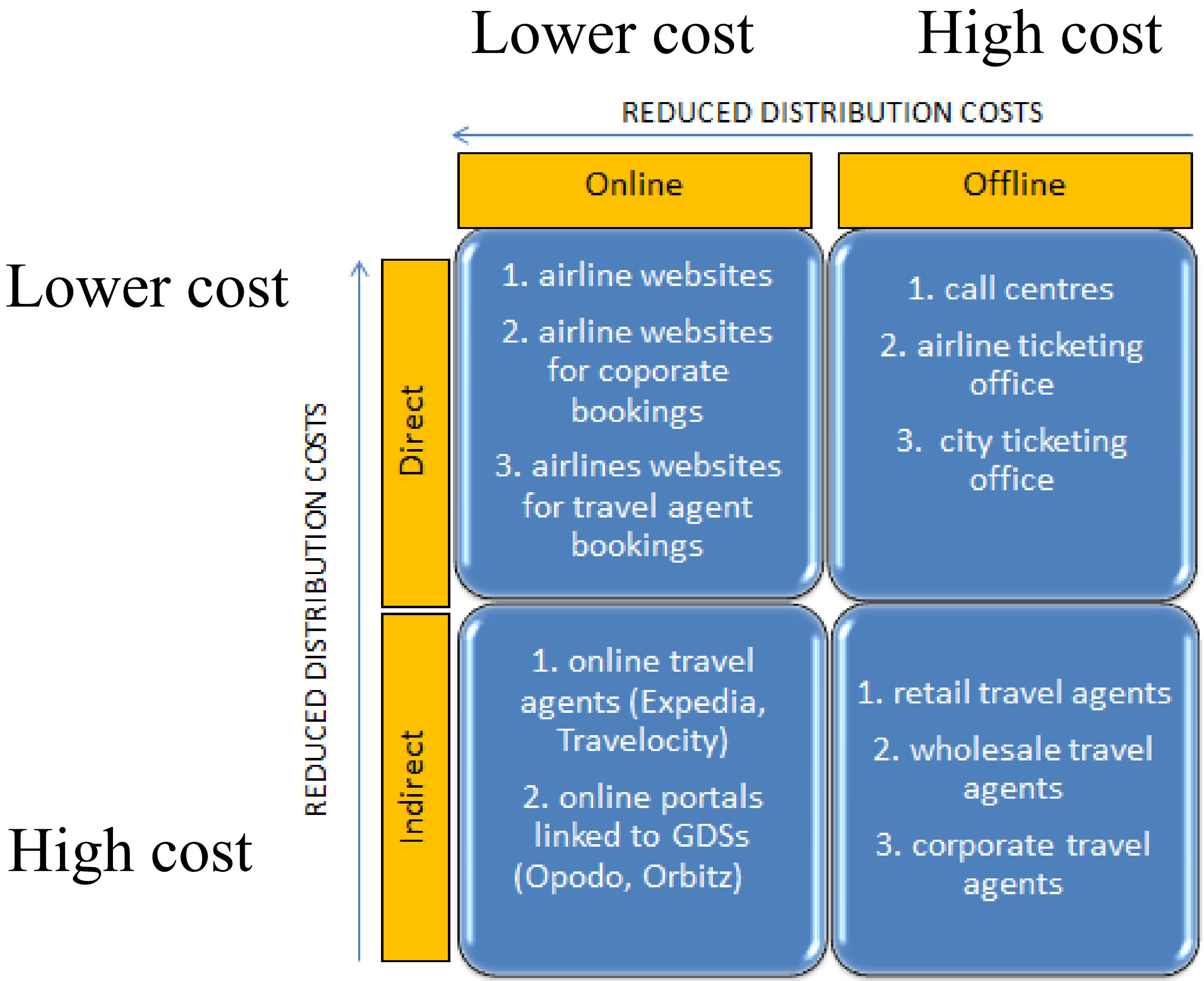
Source: U.S. GAO (2003) Report 03-749

TRENDS IN AIRLINE DISTRIBUTION

- In the mid-1990s two fundamental changes profoundly impacted airline distribution
  - Internet communication technologies enabled direct marketing by airlines to consumers
    - Personalized airline websites
    - In the US, the share of online reservations increased from 7% to 30% between 1999 and 2002 alone *(now 36%)*
  - Airlines reduced commissions paid to travel agents
    - Pressure on airlines to reduce costs
    - E.g. Irish carrier Aer Lingus cut commissions sharply and made the lowest fares available through its website only (45% of tickets are sold online)

Source: U.S. GAO (2003) Report 03-749

TRENDS IN AIRLINE DISTRIBUTION



Lower cost   High cost

REDUCED DISTRIBUTION COSTS

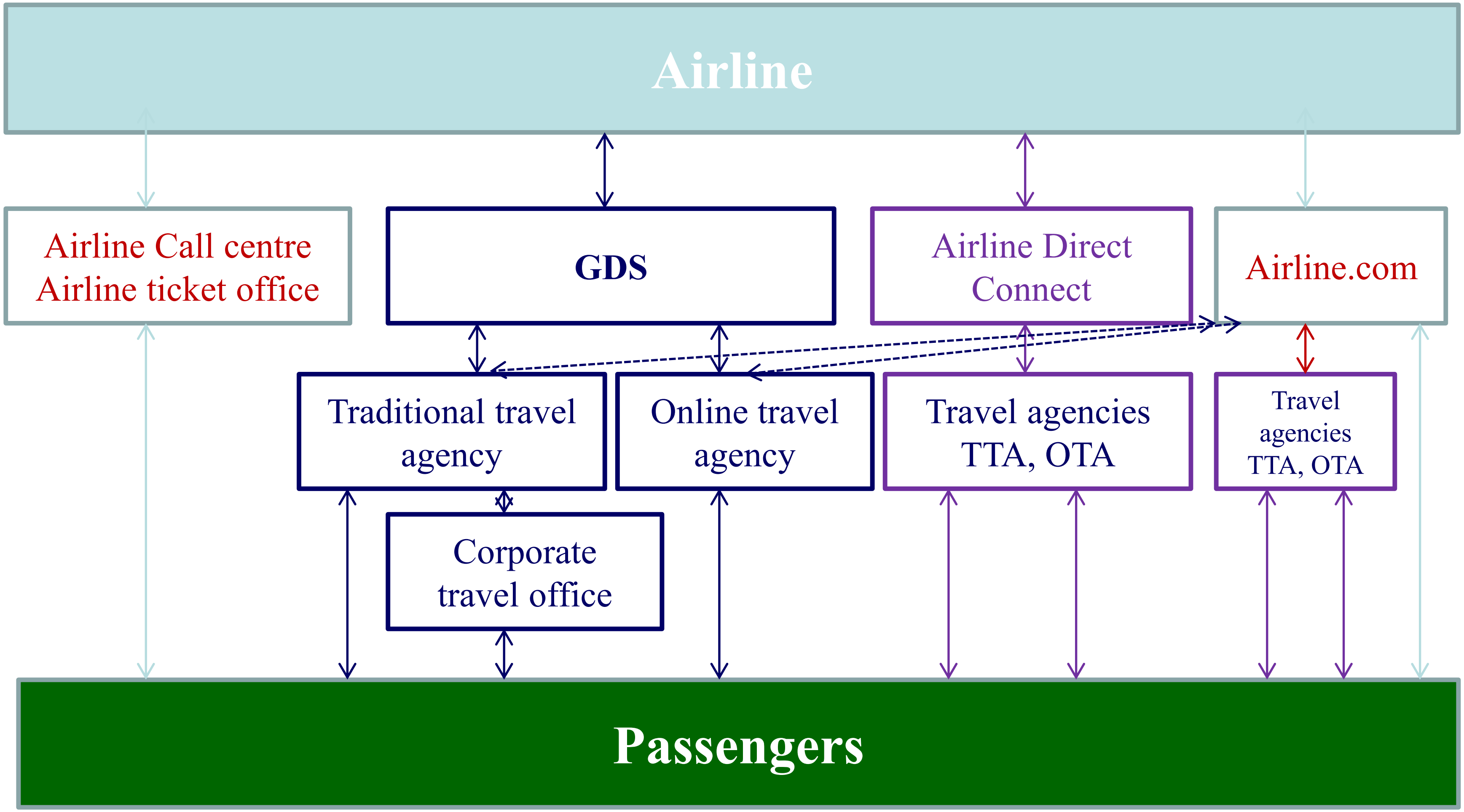
Lower cost

High cost

REDUCED DISTRIBUTION COSTS

	Online	Offline
Direct	1. airline websites 2. airline websites for coporate bookings 3. airlines websites for travel agent bookings	1. call centres 2. airline ticketing office 3. city ticketing office
Indirect	1. online travel agents (Expedia, Travelocity) 2. online portals linked to GDSs (Opodo, Orbitz)	1. retail travel agents 2. wholesale travel agents 3. corporate travel agents

AIRLINE DISTRIBUTION CHANNELS



Airline

Airline Call centre
Airline ticket office

GDS

Airline Direct
Connect

Airline.com

Traditional travel agency

Online travel agency

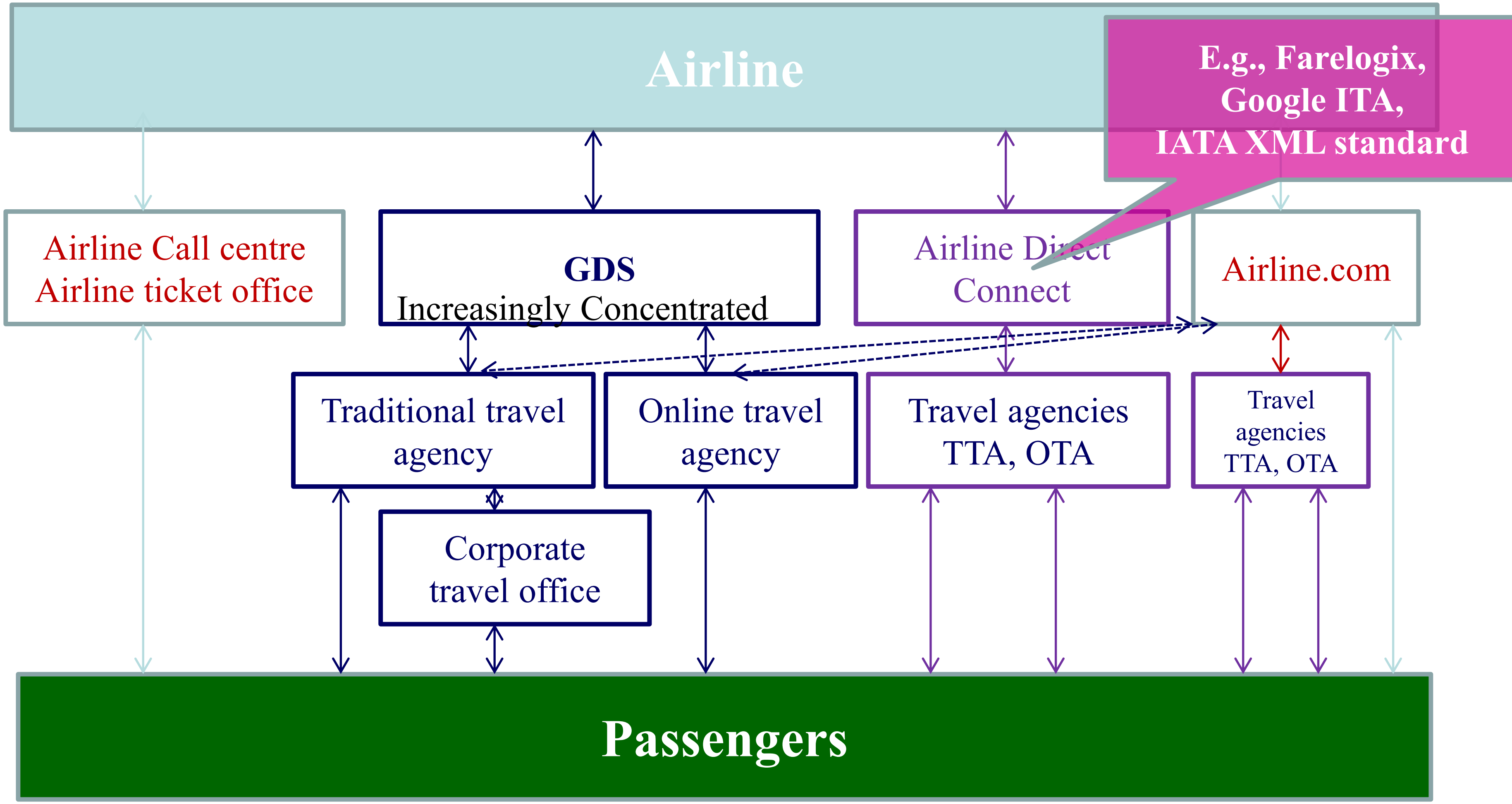
Travel agencies
TTA, OTA

Travel agencies
TTA, OTA

Corporate travel office

Passengers

AIRLINE DISTRIBUTION CHANNELS



Airline

E.g., Farelogix, Google ITA, IATA XML standard

Airline Call centre
Airline ticket office

GDS
Increasingly Concentrated

Airline Direct Connect

Airline.com

Traditional travel agency

Online travel agency

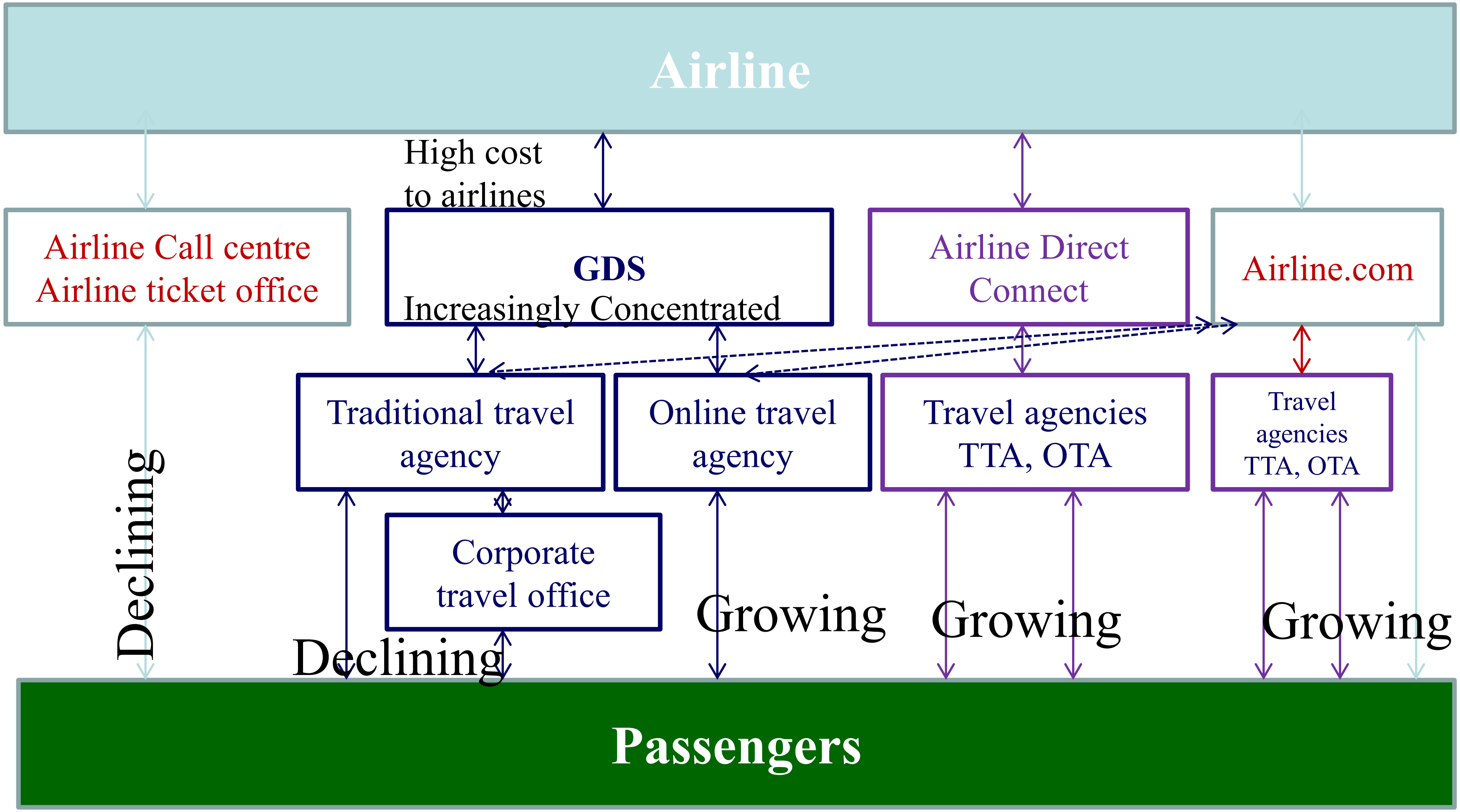
Travel agencies TTA, OTA

Travel agencies TTA, OTA

Corporate travel office

Passengers

AIRLINE DISTRIBUTION CHANNELS



Airline

High cost to airlines

Airline Call centre
Airline ticket office

GDS
Increasingly Concentrated

Airline Direct Connect

Airline.com

Traditional travel agency

Online travel agency

Travel agencies TTA, OTA

Travel agencies TTA, OTA

Corporate travel office

Declining

Declining

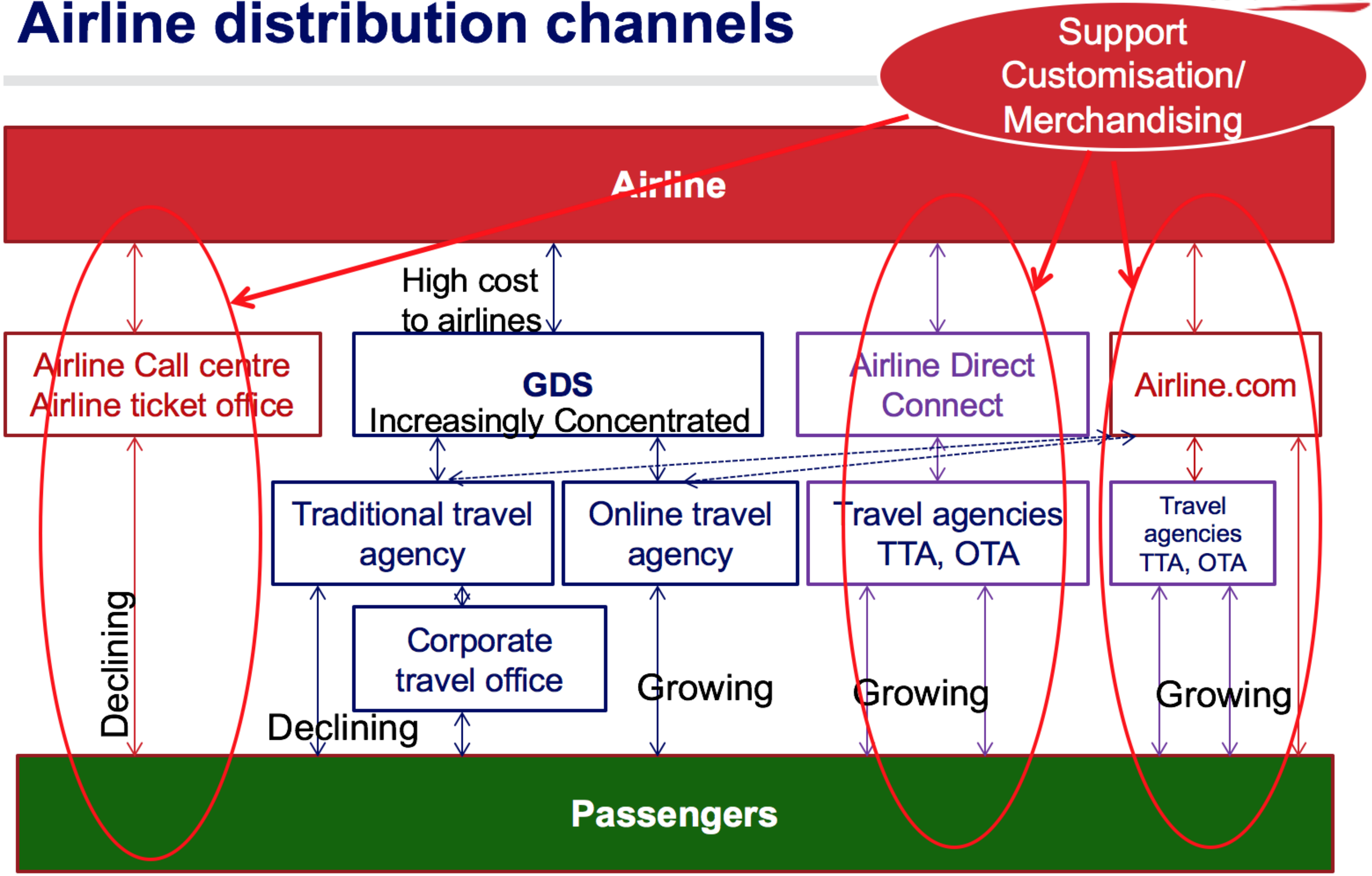
Growing

Growing

Growing

Passengers

Airline distribution channels



Support Customisation/ Merchandising

Airline

High cost to airlines

Airline Call centre
Airline ticket office

GDS
Increasingly Concentrated

Airline Direct Connect

Airline.com

Traditional travel agency

Online travel agency

Travel agencies TTA, OTA

Travel agencies TTA, OTA

Corporate travel office

Declining

Declining

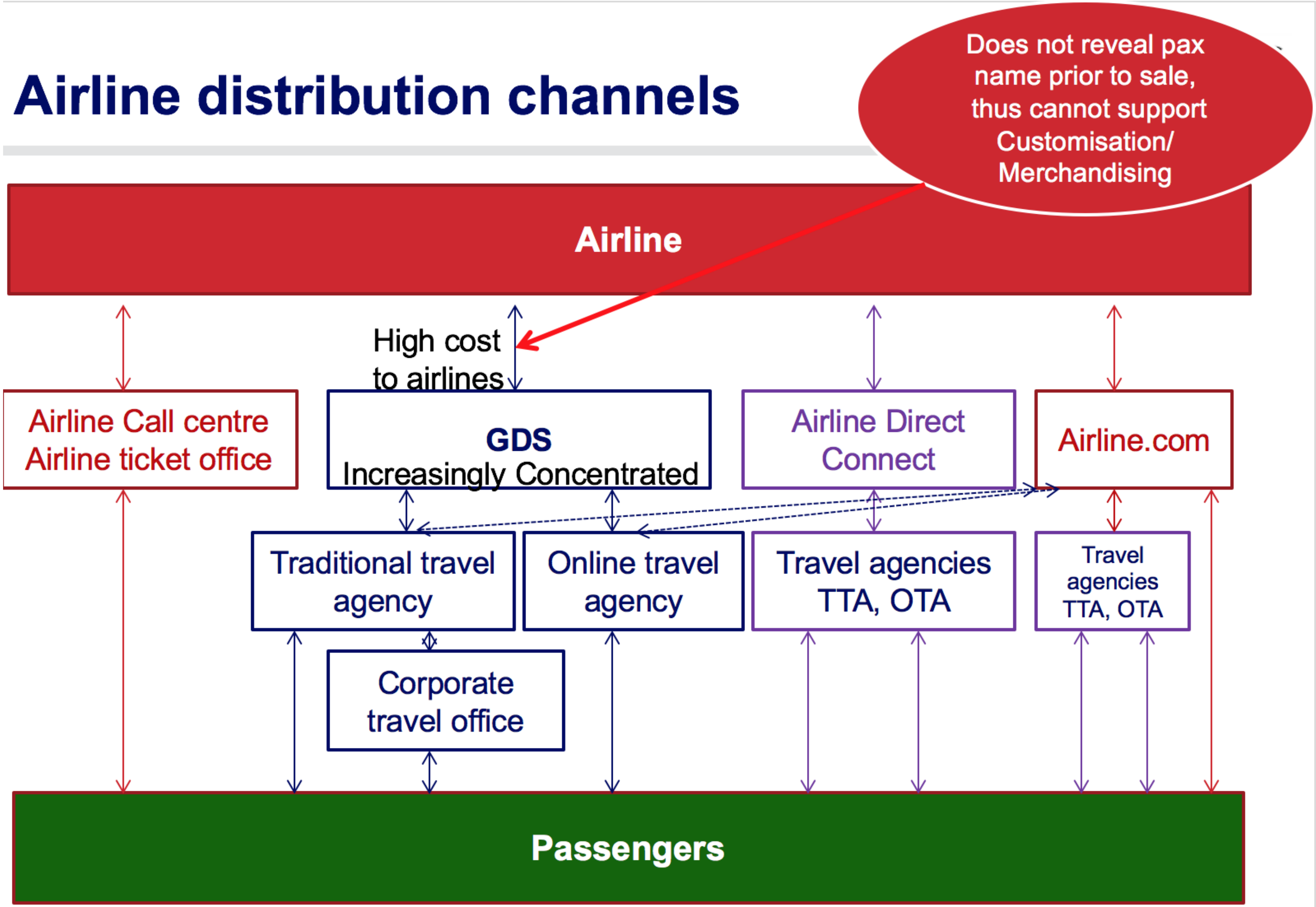
Growing

Growing

Growing

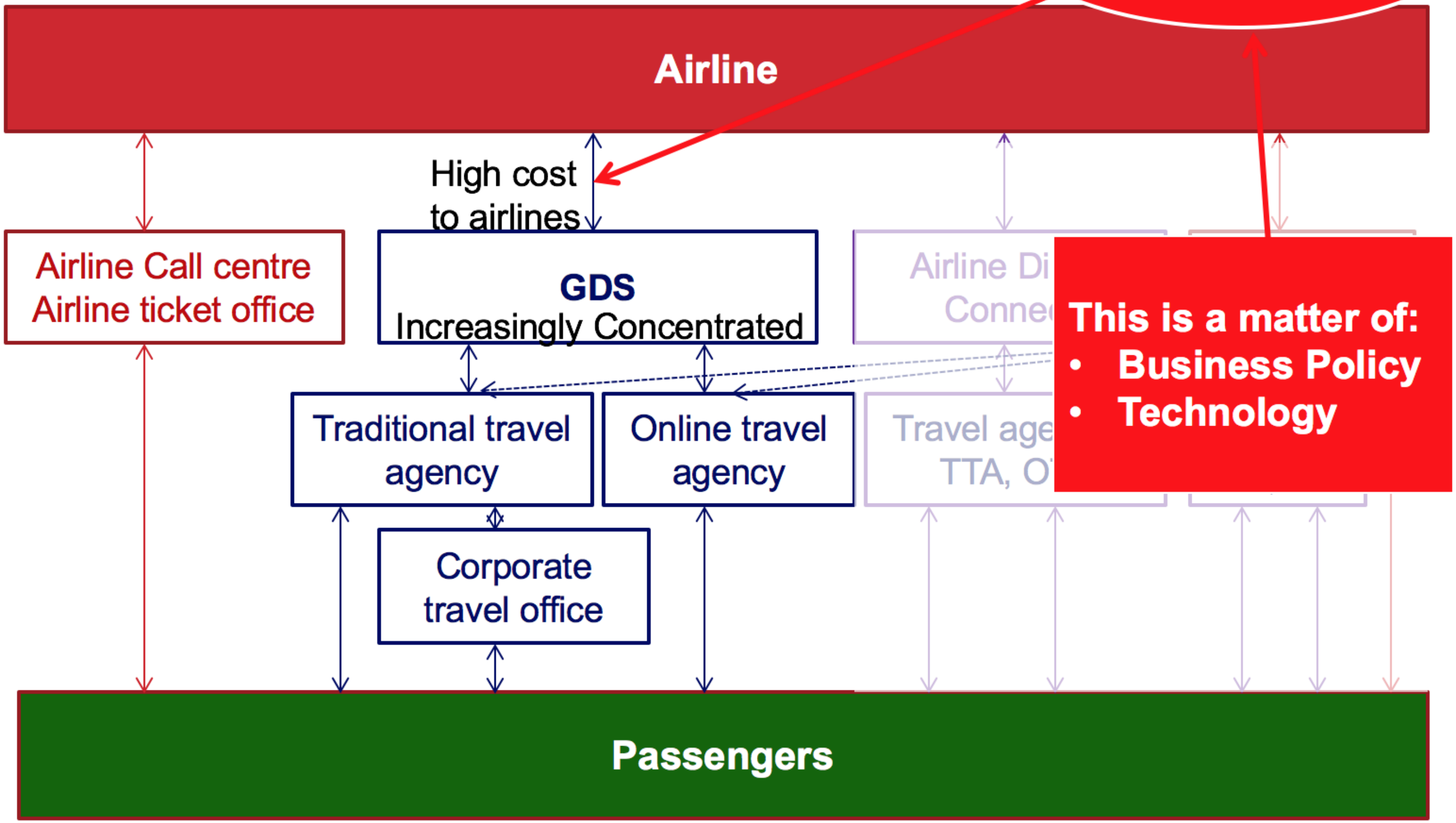
Passengers

Airline distribution channels



Does not reveal pax name prior to sale, thus cannot support Customisation/ Merchandising

Airline distribution channels

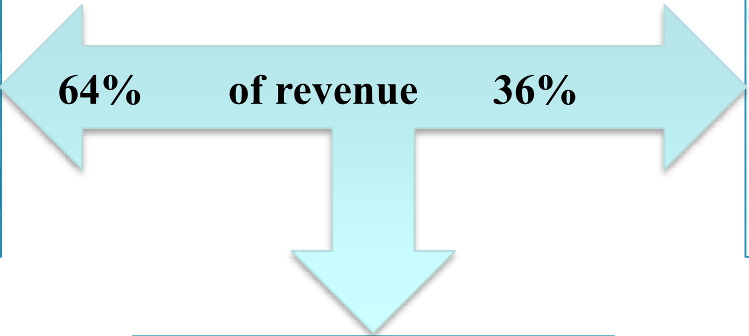


Does not reveal pax name prior to sale, thus cannot support Customisation/ Merchandising

This is a matter of:

- **Business Policy**
- **Technology**

GDS VERSUS ONLINE SALES



64% of revenue 36%

- In the US, sales through GDSs generated 64% of airline passenger revenue in 2008. 50% of tickets
  GDS tickets higher fare
- In Canada, 75% of international, 40% of transborder and 25% of domestic travel is booked through GDSs.

- Airlines increasingly use their websites for domestic sales (GDSs for international itineraries).
- Low cost airlines (e.g. Southwest and JetBlue) sell over 90% of tickets online.

Source: PhoCusWright (2009)
“The role and value of the global distribution systems in travel distribution”

SUMMARY

- There has been a clear shift from GDS-based to new and emerging distribution channels.
- Nevertheless, GDSs still play an important role in airline distribution:
  - Corporate travel
  - Government travel
  - International travel
  - Regions with limited or no internet access

B.1 TRADITIONAL DISTRIBUTION CHANNELS

HOW DID WE BOOK TICKETS BEFORE?

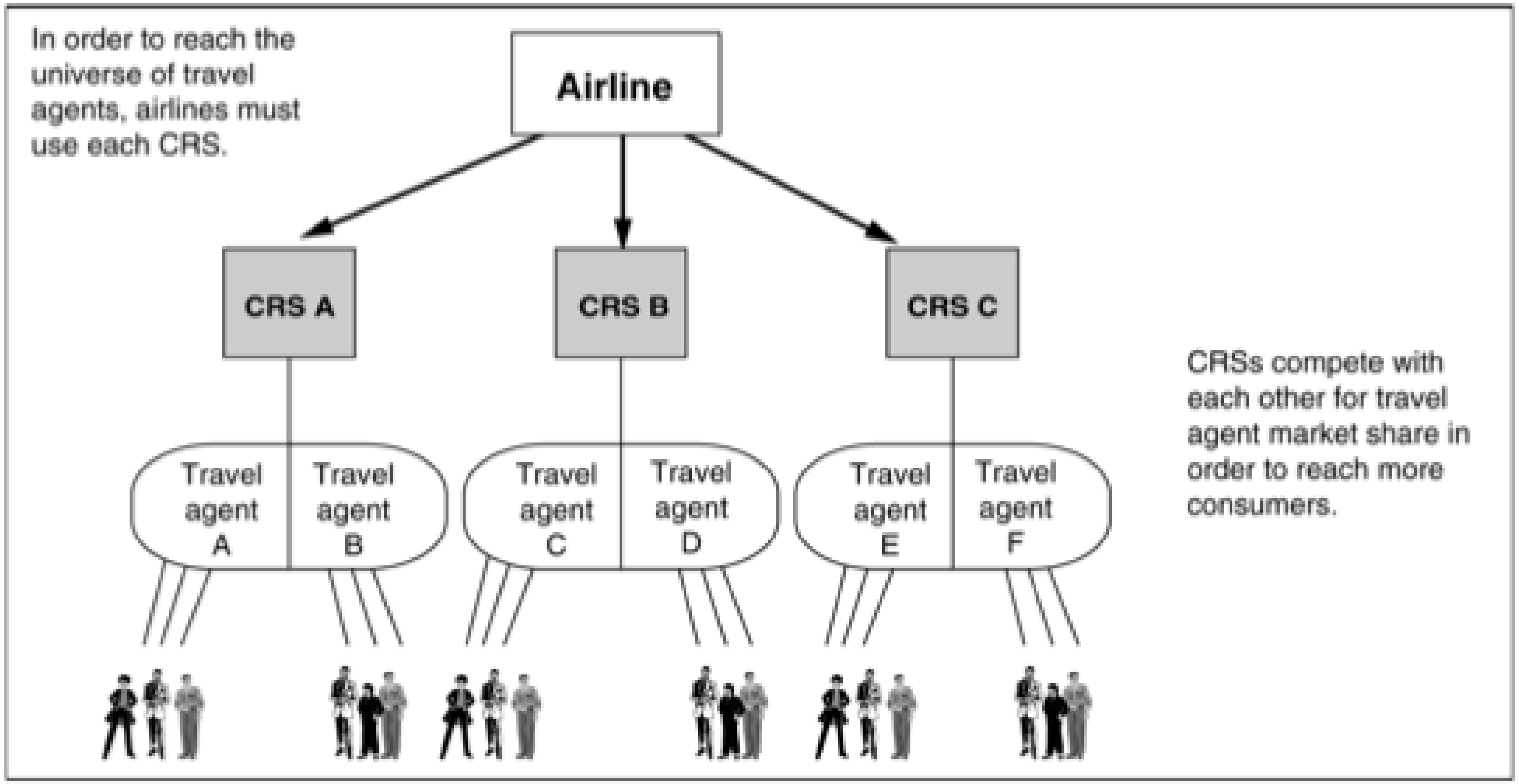
- In the past, passengers could book tickets with
  - an airline (call centre or ticketing office)
  - a travel agent (access to a CRS)
- Physical travel agents powered by CRSs accounted for a lion's of all ticket sales
  - In 1999, 71% of all airline tickets in the US were sold via CRS-powered travel agents

Source: U.S. GAO (2003) Report 03-749

COMPUTER RESERVATION SYSTEMS (CRSS)

- Computer reservation systems (CRSs)
  - Developed by airlines in the 1960s...
    - Sabre was developed by American Airlines & IBM
  - Originally used to track flight and schedule information and sell airline seats
  - In the mid-1970s airlines provided access to CRSs for travel agents
  - Over time CRSs evolved and added new functionality
  - Most airlines sold off CRSs by the early 2000s
  - Today they are referred to as Global Distribution Systems

Figure 2: CRS Relationships with Travel Agencies and Airlines



In order to reach the universe of travel agents, airlines must use each CRS.

CRSs compete with each other for travel agent market share in order to reach more consumers.

Source: GAO analysis.

Source: GAO (2003)

CRSs WERE USED TO DISADVANTAGE COMPETITORS

- Different regions have different regulations
- There has been a strong incentive to bias CRS displays by moving the host airline's flights to top of screen.
  - For example, funnel flights
    - (treat connecting flight as through flight
      and therefore would place service higher on screen)
- Some countries adopted regulations to prohibit display bias
  - Now considered anti-competitive
  - Fees to non-owner airlines increased dramatically

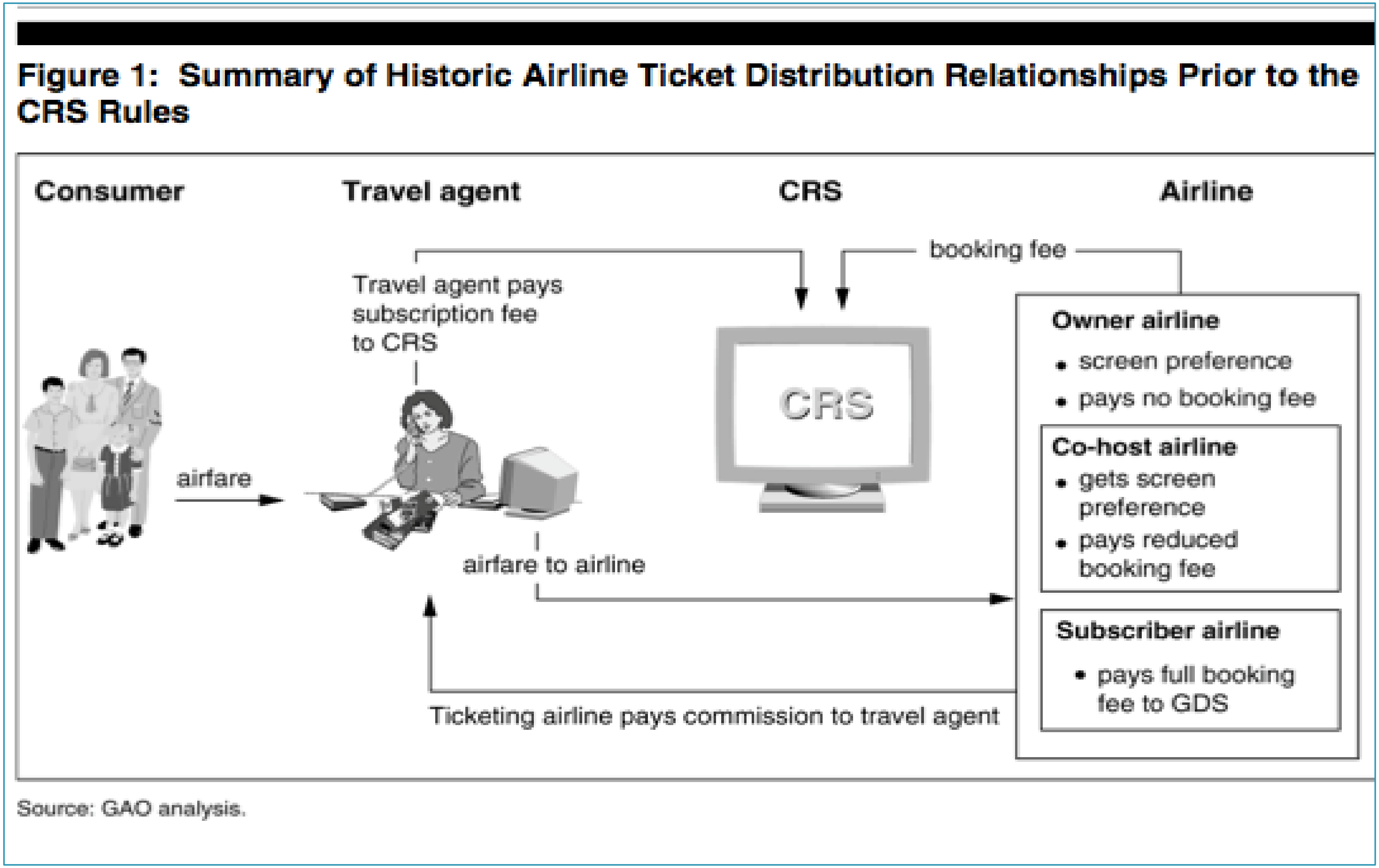


Figure 1: Summary of Historic Airline Ticket Distribution Relationships Prior to the CRS Rules

Source: GAO analysis.

Source: US General Accounting Office (2003)

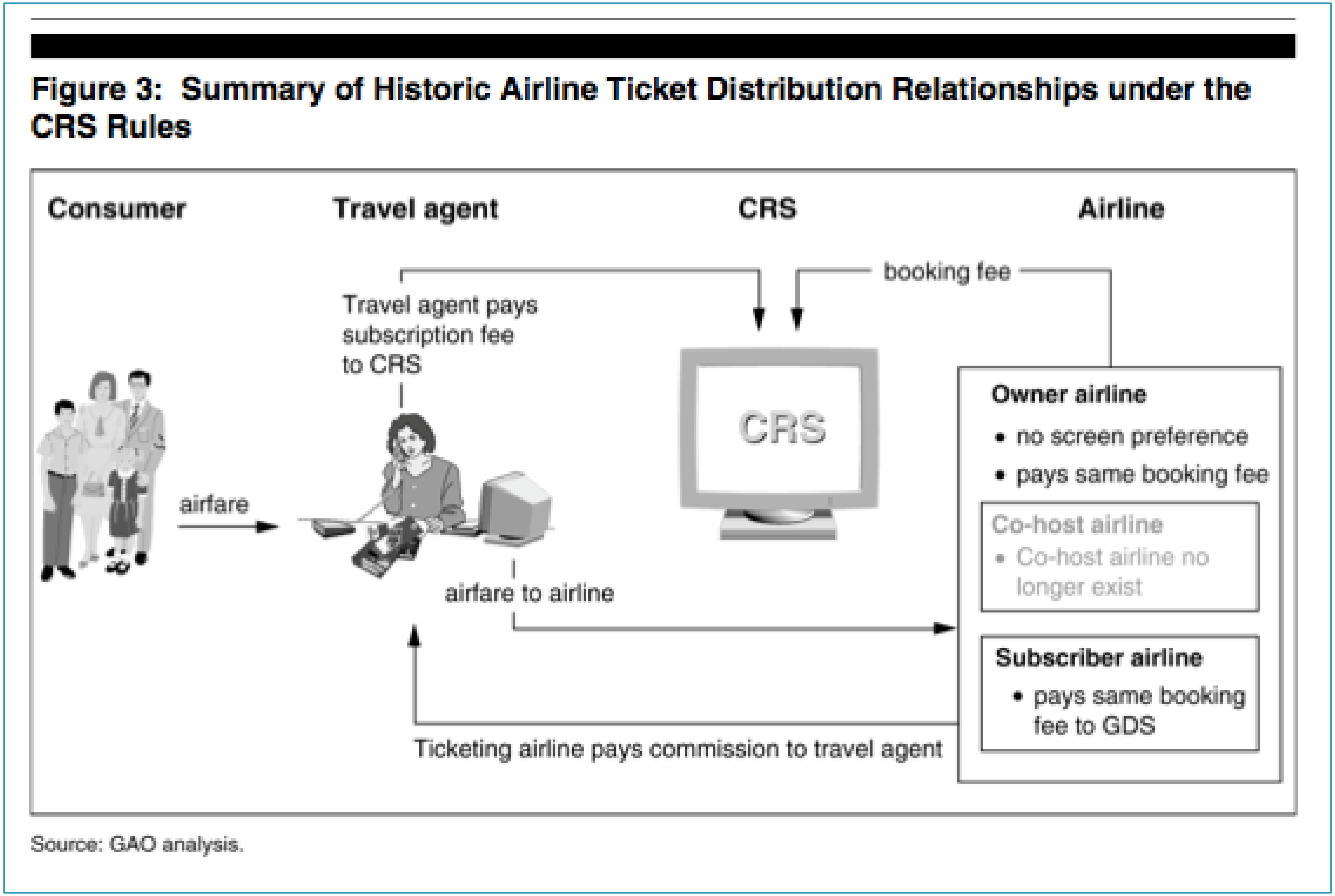


Figure 3: Summary of Historic Airline Ticket Distribution Relationships under the CRS Rules

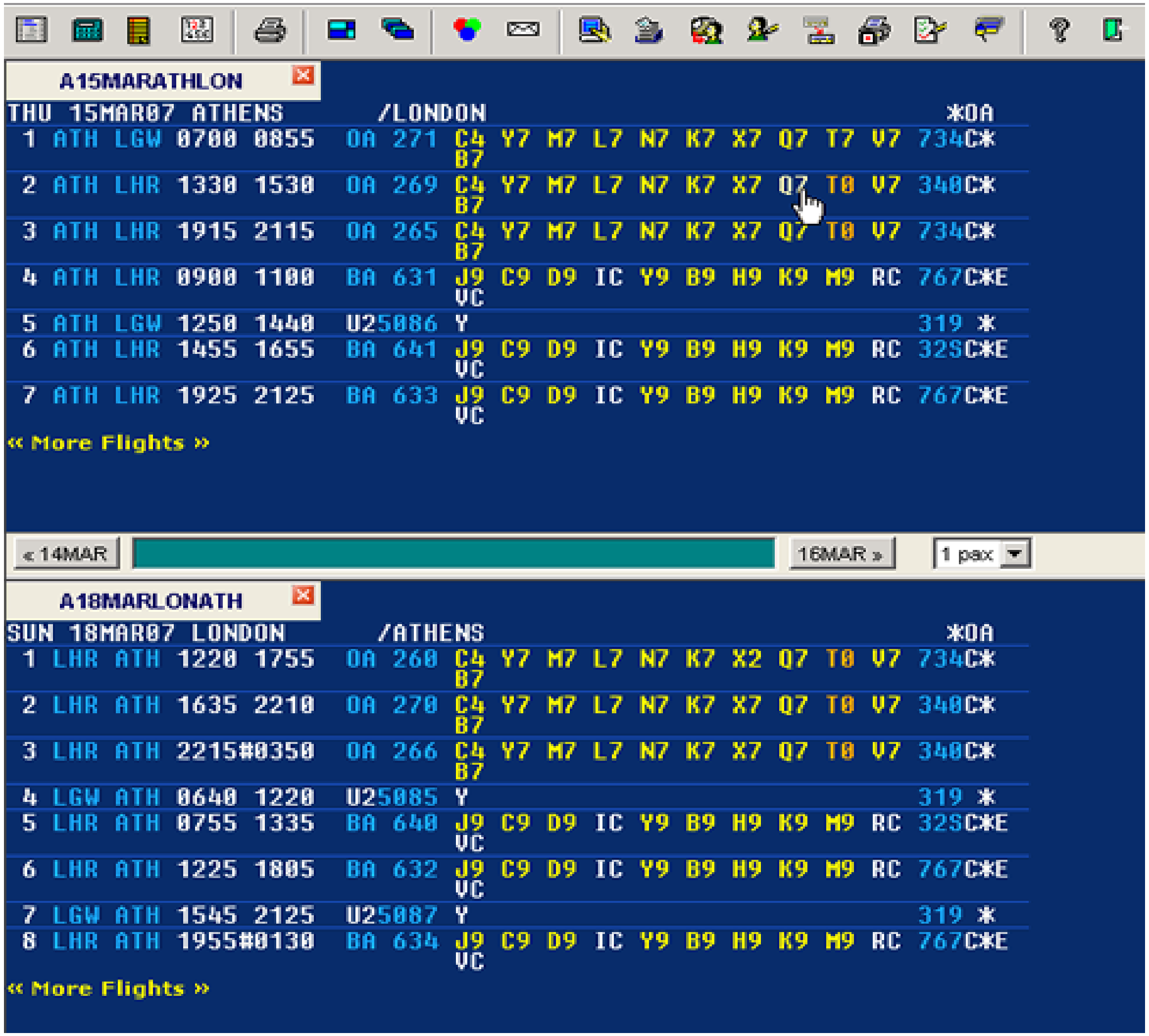
Source: GAO analysis.

Source: GAO (2003)

GLOBAL DISTRIBUTION SYSTEMS (GDSs)

- **Global distribution aystems (GDSs)**
  - **Communication platforms that connect travel suppliers and buyers**
  - **In addition to information on airline tickets, GDSs distribute other travel services (car rentals, hotel accommodation, sightseeing tours, etc.)**
  - **Largest GDSs today are Travelport, Sabre and Amadeus**
  - **Sabre and Travelport account for 90% of tickets sold via GDSs in North America**
  - **Amadeus dominates GDS sales in Europe**

- Travelport / Galileo User Interface, 2007

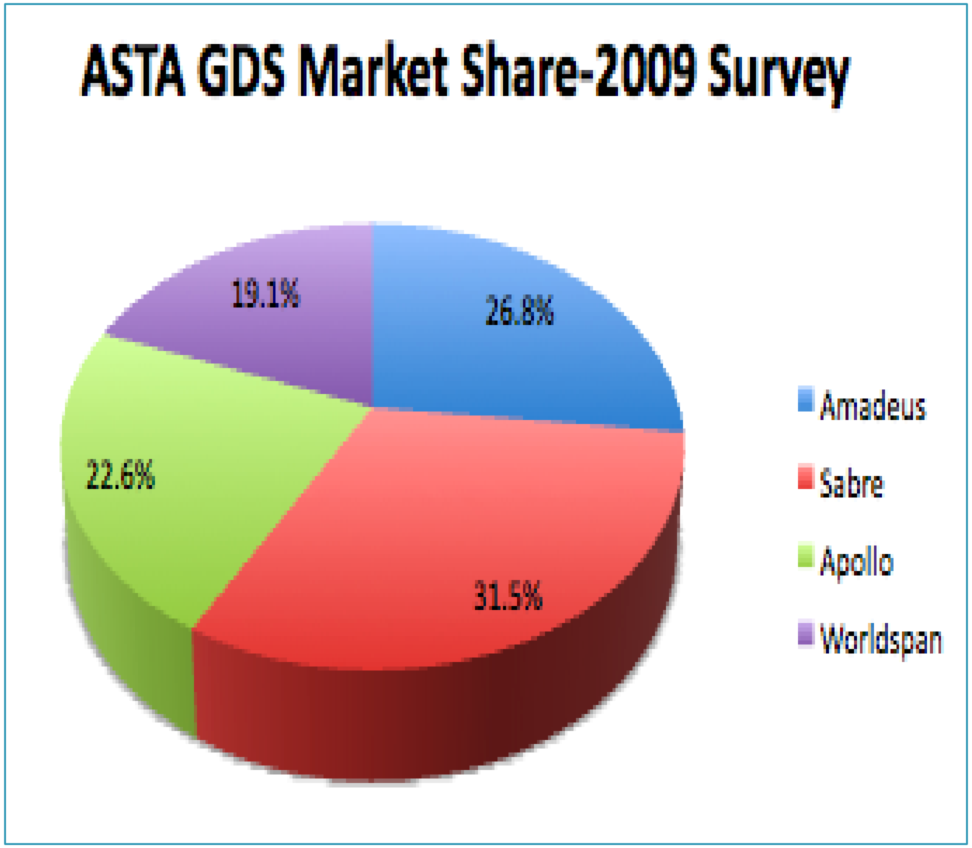


```
THU  15MAR07  ATHENS        /LONDON                              *OA
 1 ATH LGW 0700 0855  OA 271 C4 Y7 M7 L7 N7 K7 X7 Q7 T7 V7 734C*
                             B7
 2 ATH LHR 1330 1530  OA 269 C4 Y7 M7 L7 N7 K7 X7 Q7 T0 V7 340C*
                             B7
 3 ATH LHR 1915 2115  OA 265 C4 Y7 M7 L7 N7 K7 X7 Q7 T0 V7 734C*
                             B7
 4 ATH LHR 0900 1100  BA 631 J9 C9 D9 IC Y9 B9 H9 K9 M9 RC 767C*E
                             VC
 5 ATH LGW 1250 1440  U25086 Y                             319 *
 6 ATH LHR 1455 1655  BA 641 J9 C9 D9 IC Y9 B9 H9 K9 M9 RC 32SC*E
                             VC
 7 ATH LHR 1925 2125  BA 633 J9 C9 D9 IC Y9 B9 H9 K9 M9 RC 767C*E
                             VC
« More Flights »
```

```
SUN  18MAR07  LONDON        /ATHENS                              *OA
 1 LHR ATH 1220 1755  OA 260 C4 Y7 M7 L7 N7 K7 X2 Q7 T0 V7 734C*
                             B7
 2 LHR ATH 1635 2210  OA 270 C4 Y7 M7 L7 N7 K7 X7 Q7 T0 V7 340C*
                             B7
 3 LHR ATH 2215#0350  OA 266 C4 Y7 M7 L7 N7 K7 X7 Q7 T0 V7 340C*
                             B7
 4 LGW ATH 0640 1220  U25085 Y                             319 *
 5 LHR ATH 0755 1335  BA 640 J9 C9 D9 IC Y9 B9 H9 K9 M9 RC 32SC*E
                             VC
 6 LHR ATH 1225 1805  BA 632 J9 C9 D9 IC Y9 B9 H9 K9 M9 RC 767C*E
                             VC
 7 LGW ATH 1545 2125  U25087 Y                             319 *
 8 LHR ATH 1955#0130  BA 634 J9 C9 D9 IC Y9 B9 H9 K9 M9 RC 767C*E
                             VC
« More Flights »
```

GDS MARKET IS HIGHLY CONCENTRATED

- **Sabre**
  - Owned by private equity firms
    - Silver Lake Partners
    - Texas Pacific Group
- **Travelport (Apollo, Galileo, Worldspan)**
  - Owned by a private investment firm
    - Blackstone Group
- **Amadeus**
  - Airlines are shareholders in the owning company
    - WAM Acquisitions (Air France, Iberia and Lufthansa are shareholders)



Source: tnooz (2010)

GLOBAL DISTRIBUTION SYSTEMS

- GDSs remain a major distribution tool
  - Over 60% of airline industry revenue comes from sales via GDS-enabled distribution channels
  - Used by scheduled carriers
  - Limited use by charter carriers and discount carriers such as Southwest
  - It is a global business
    - Global consolidation; interline linkages partly driven by carrier alliances
  - Airlines are fighting back: American challenged fees, LH charge of 16 euro if booked on GDS rather than LH website (announced June 2015)
    - LH said was part of a broader shift in commercial strategy to earn a greater portion of revenue from flight operations.
    - LH said that costs for using GDS are several times higher than for other booking methods

PhoCusWright (2009)

WHAT WAS THE IMPACT OF CRSS/GDSS?

- Situation in the United States
  - In 2008, 64% of airline revenue (50% of tickets) came from sales via GDS-powered channels
  - In 2002, 63% of airline tickets were sold through GDS-powered travel agents
    - 54% of all sales come from the first line on screen
    - 92% of all sales come from the first screen
    - 20% increase in sales to vendor of a "biased" system

Source: U.S. GAO (2003) ; PhoCusWright (2009)

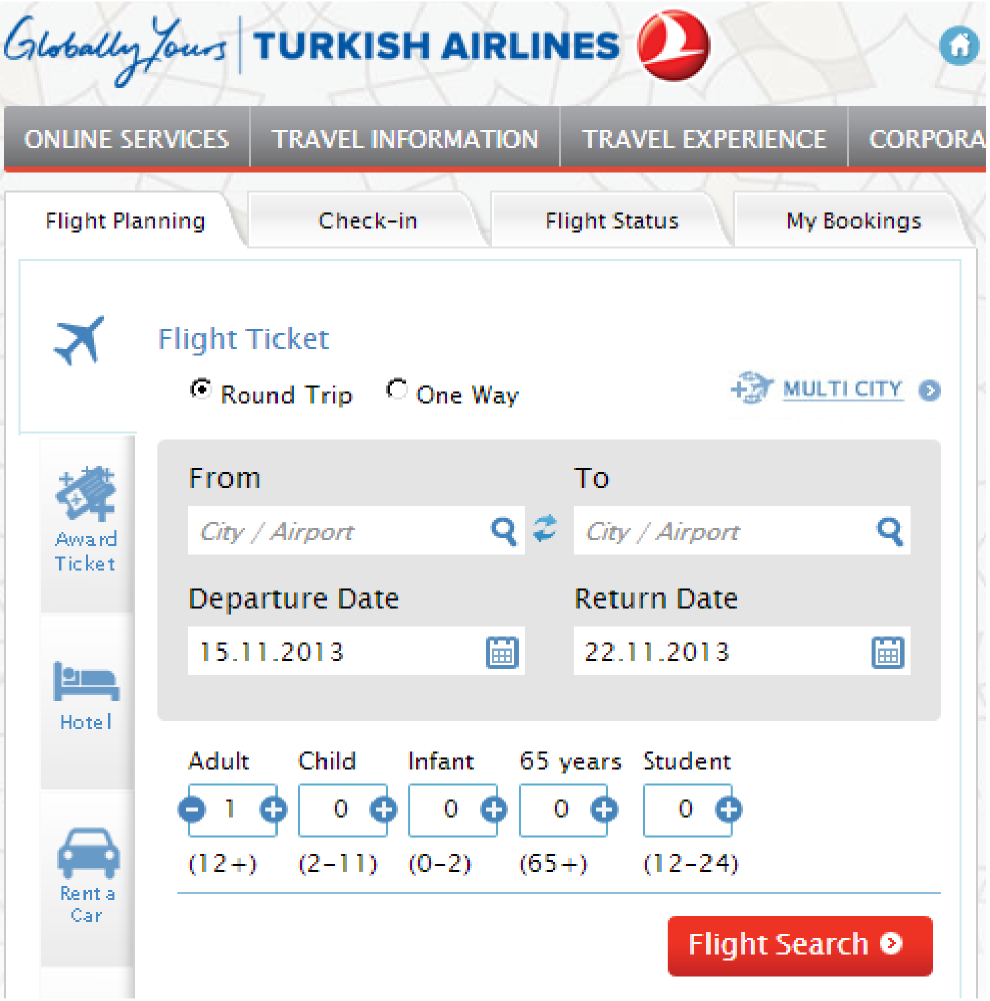
WHAT WAS THE IMPACT OF CRSS/GDSS?

- Situation in Canada
  - In 2000, 74% of tickets were sold by GDS-powered travel agencies
  - Agencies traditionally earned 10-12% commission
    - In recent years "caps" have been placed
    - Larger chains greater opportunity for incentives & overrides
    - Travel agencies starting to place a service charge with its customers to partially offset the "cap" impact.

B.2 NEW AND EMERGING DISTRIBUTION CHANNELS

AIRLINES' WEBSITES

- Airlines made substantial investments to develop personalized websites
- Travellers can buy personalized product offerings
  - Ticket at the base price
  - Ancillary services for an additional price
- Airlines save costs when bypassing expensive intermediaries (GDSs and travel agents)
- LCCs use direct sales as a way to keep costs under control
  - over 90% of tickets by Southwest and JetBlue are sold via their websites



● Round Trip ○ One Way

From: City / Airport

To: City / Airport

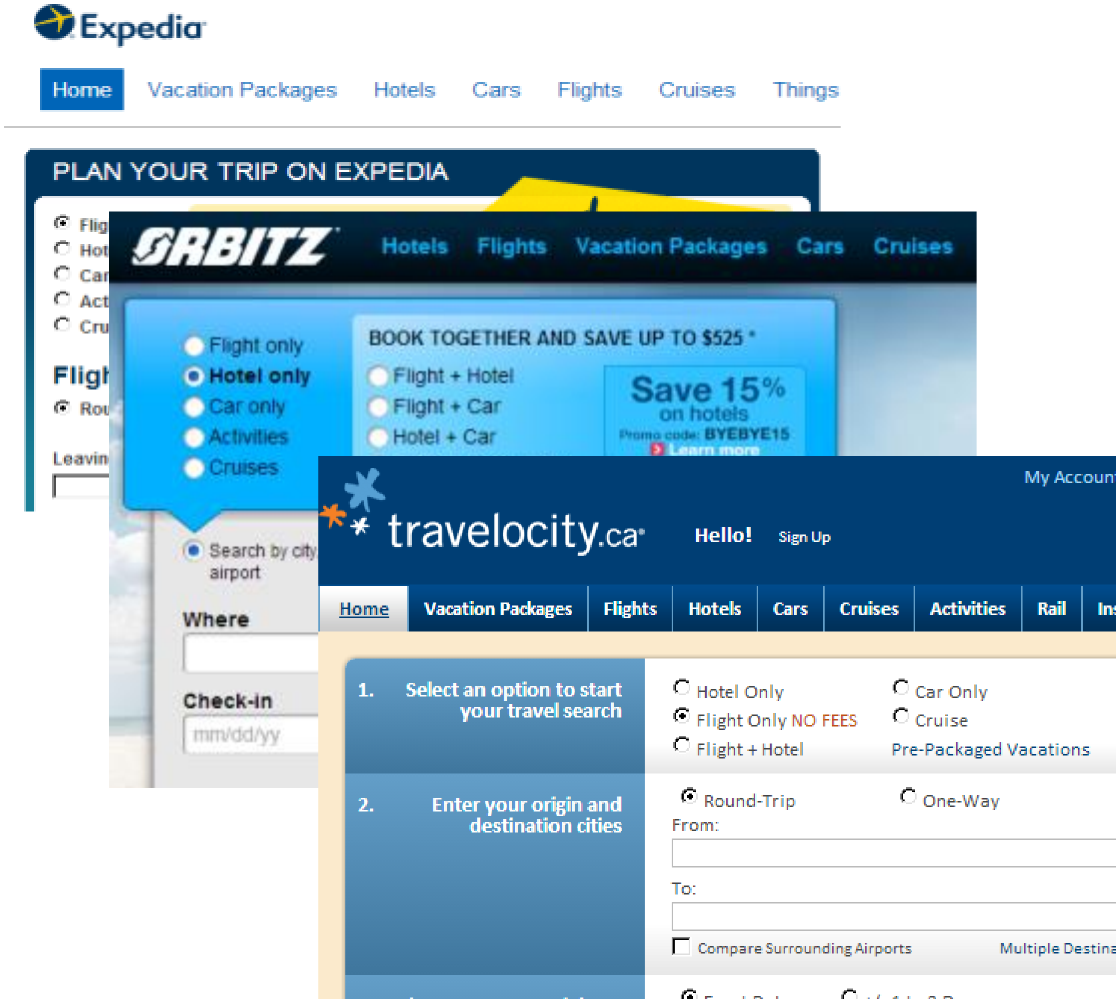
Departure Date: 15.11.2013

Return Date: 22.11.2013

Adult	Child	Infant	65 years	Student
1	0	0	0	0
(12+)	(2-11)	(0-2)	(65+)	(12-24)

INTEGRATED WEBSITES

- Websites which act as an online travel agency
- Travellers can compare fares, schedules and other flight information
- May be independent or owned by travel suppliers
  - Orbitz is part-owned by Travelport
  - Expedia is independent
- Bookings via integrated websites may be channeled via GDSs or directly access airlines’ inventories
- Opaque websites
  - Blind auction principle
  - Priceline.com



DIRECT AIRLINE-TRAVEL AGENT PARTNERSHIPS

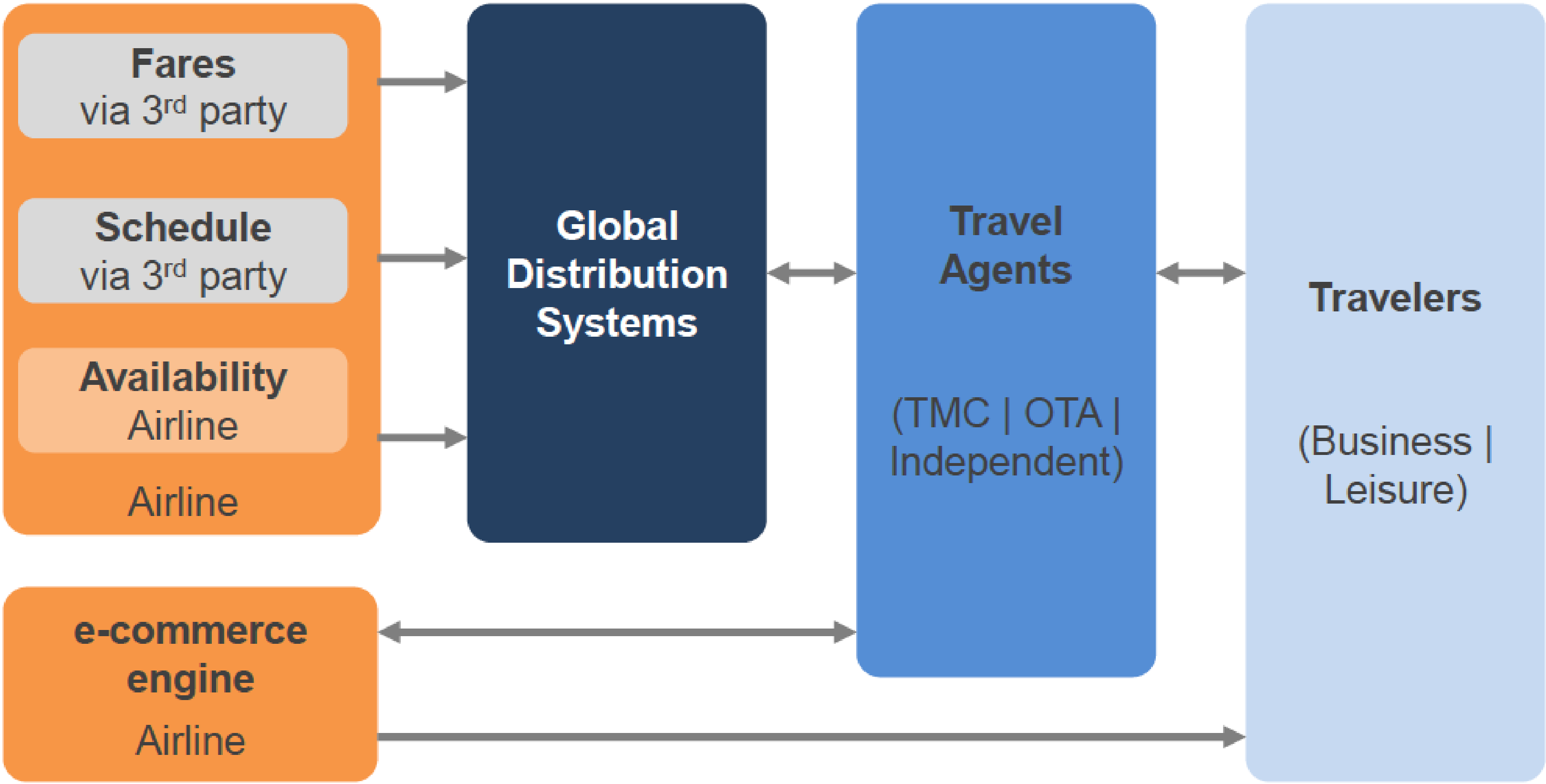
- Online travel agencies increasingly develop direct links with airlines
  - E.g. American Airlines and priceline.com
  - E.g. Air Canada and Kayak
  - Objective is to bypass costly GDS systems

IATA'S NEW DISTRIBUTION CAPABILITY

- Airlines use different technological standards when selling through their websites and through GDSs
- XML used for website sales and supports customized product offerings
- EDIFACT/TELETYPE used for GDS/travel agent sales and does not support customized product offerings
- NDC is designed to bridge the gap between the different standards
- NDC is currently in the pilot stage

Source: IATA's New Distribution Capability (NDC) Program

Flight Distribution Today



Fares
via 3rd party

Schedule
via 3rd party

Availability
Airline

Airline

Global Distribution Systems

Travel Agents

(TMC | OTA | Independent)

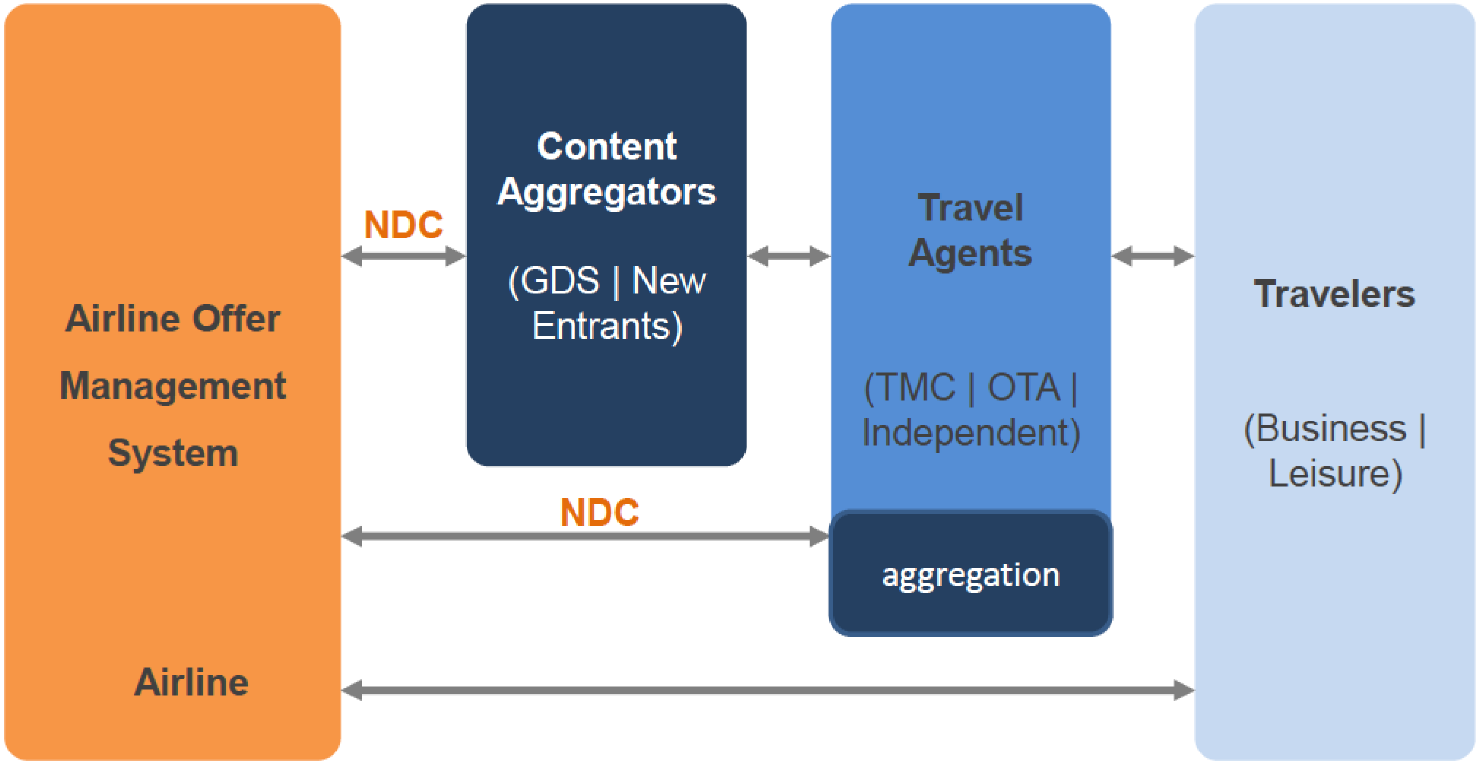
Travelers

(Business | Leisure)

e-commerce engine
Airline

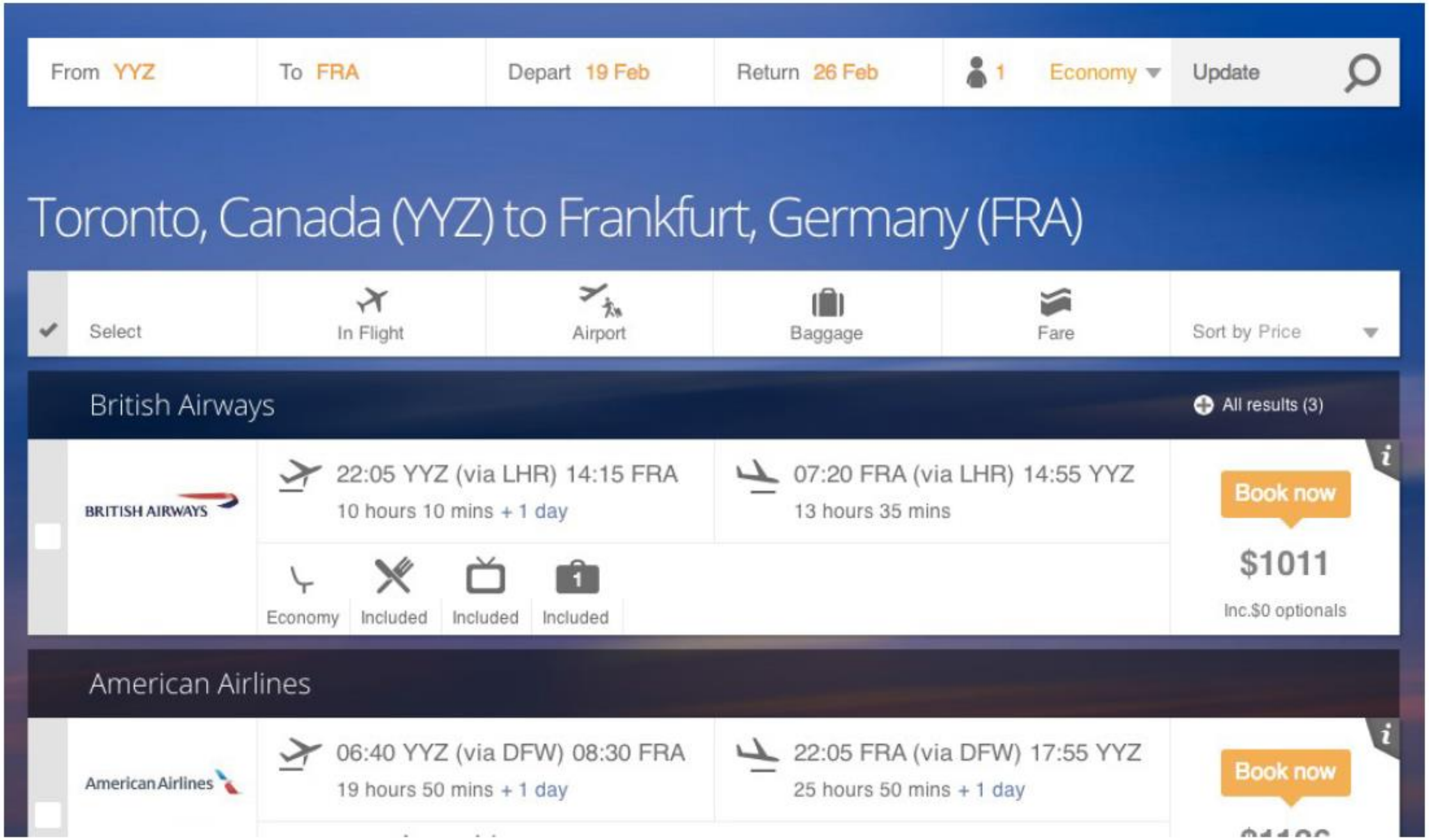
Source: IATA

Air Retailing Tomorrow



Source: IATA

A Look Into the Future



From YYZ | To FRA | Depart 19 Feb | Return 26 Feb | 1 Economy | Update

Toronto, Canada (YYZ) to Frankfurt, Germany (FRA)

Select | In Flight | Airport | Baggage | Fare | Sort by Price

British Airways — All results (3)

☐ BRITISH AIRWAYS

22:05 YYZ (via LHR) 14:15 FRA
10 hours 10 mins + 1 day

07:20 FRA (via LHR) 14:55 YYZ
13 hours 35 mins

Economy | Included | Included | Included

Book now

$1011

Inc.$0 optionals

American Airlines

☐ American Airlines

06:40 YYZ (via DFW) 08:30 FRA
19 hours 50 mins + 1 day

22:05 FRA (via DFW) 17:55 YYZ
25 hours 50 mins + 1 day

Book now

Source: IATA

Who benefits from NDC?

Airline

Agent

Customer

Product differentiation

- Marketing the richness and uniqueness of airline products
- Marketing personalized offers

Order quality

- Only offers get ordered, no mistakes or ADMs

Access to full and rich Content

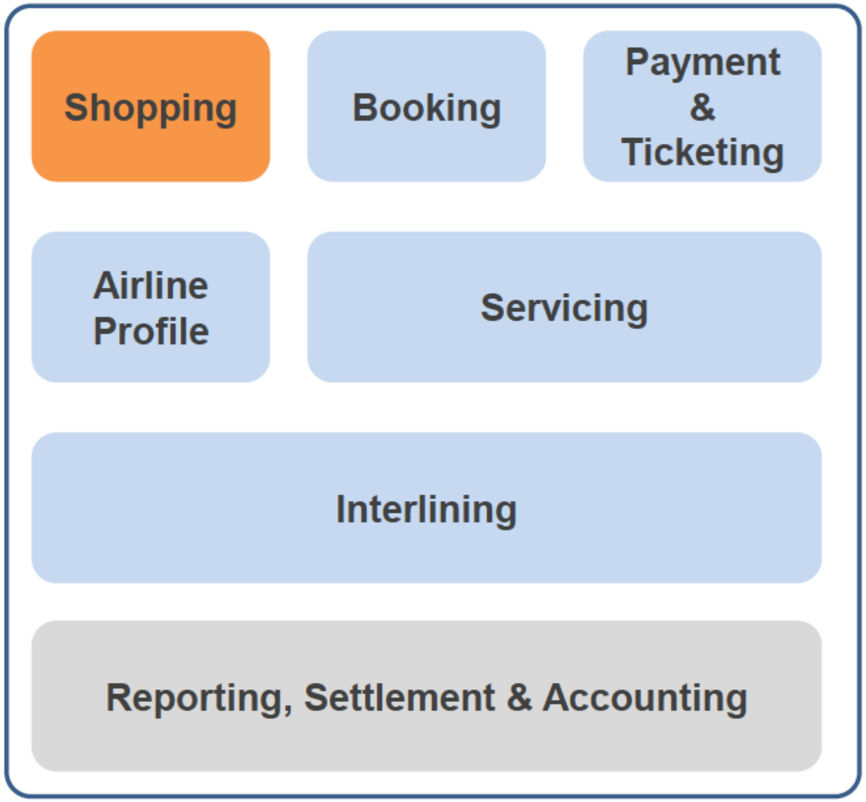
- Compare flight products based on schedule, price AND value
- Work with real-time product and fare data

Transparent shopping

- Deliver the right products at the right prices
- Offer each traveler the opportunity to shop based on what they value – be it anonymous or personalized

Source: IATA

Scope and application of NDC



Shopping

Booking

Payment & Ticketing

Airline Profile

Servicing

Interlining

Reporting, Settlement & Accounting

- Not mandatory
- Flexible
- Business model-agnostic
- Can be integrated

- No NDC System
- No NDC Service
- No NDC data!

Source: IATA

WHAT IS THE IMPACT OF NEW AND EMERGING DISTRIBUTION CHANNELS?

- Airlines seek to enhance competition between distribution channels
  - Goal is to reduce cost of distribution
  - Greatly increased quality of service to consumers
  - Support airline industry goal of a merchandising approach to defining and selling the airline product
  - Move away from mass standardisation of the airline product
  - To a customised service and price for consumers
- Gains to consumer from lower fares
  - As a result of enhanced competition between new and traditional distribution channels

B.3 ISSUES IN AIRLINE DISTRIBUTION

ISSUES WITH GDSs

- GDSs use outdated technologies that were developed in the 1960s
- GDSs do not have interoperability and are fragmented
    - an airline has to participate in multiple GDSs which do not communicate with each other
- GDSs do not display information on ancillary services
    - price of luggage check in, onboard meals, assigned seating, etc.

ISSUES WITH GDSs

- Exercise of market power results in high fees to users (airlines)
- GDSs have high return on investment, especially compared to the airline industry
  - This suggests a certain degree of market power vis-à-vis airlines

C. CARGO DISTRIBUTION

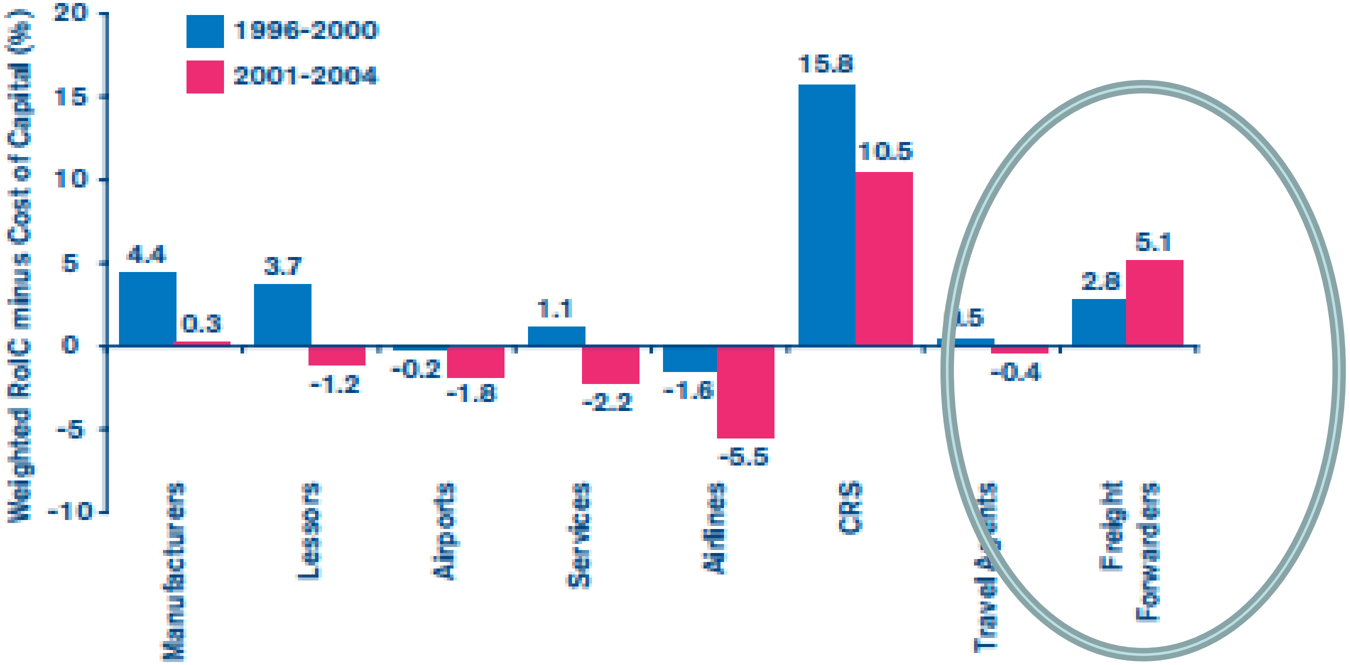
FREIGHT FORWARDERS

- Freight forwarders play a critical role in air cargo distribution
  - Handle over 70% of world's freight
- Some freight forwarders have evolved into global providers with worldwide networks
  - Expeditors, Panalpina, etc.
- A trend of increased consolidation in the freight forwarding sector can be observed
  - Leads to economies of scale and increased investor returns in the freight forwarding sector

FREIGHT FORWARDERS

- Freight forwarders returns are counter-cyclical
  - Higher average returns during downturns

Figure 5.2: The Weighted Return on Invested Capital minus the Cost of Capital by Sector



Source: IATA

FREIGHT FORWARDERS

- The consolidation trend means that there are fewer and larger global players
  - High entry barriers due to economies of scale
  - Direct air cargo distribution channels (airlines and shipping companies) exert limited competition due to lack of skills or smaller networks, but
  - Emerging Chinese and Asian competitors provide some competition in this sector

PARTNERSHIPS

- Emergence of partnerships between airlines and freight forwarders
  - **e-freight** is a project designed to reduce the amount of paper documentation in air cargo and replace it with electronic documentation and data exchange
  - **e-AWB** is an initiative designed to remove paper air waybill
    - these partnerships involve airlines, freight forwarders, shippers, ground handling companies and customs authorities

FEDEX/UPS/DHL/PUROLATOR

- FedEx was established in the early 1970s
  - Originally express parcels, documents (‘envelope company’)
  - Expanded to larger items and trucking
  - UPS evolved in exactly opposite way (big to small packages)
- FedEx and UPS leading companies in the U.S.
- DHL in Europe and other markets

END OF MODULE 9