IT/IS trends in Airline Industry

Advanced Information Systems and Business Analytics for Air Transportation

M.Sc. Air Transport Management

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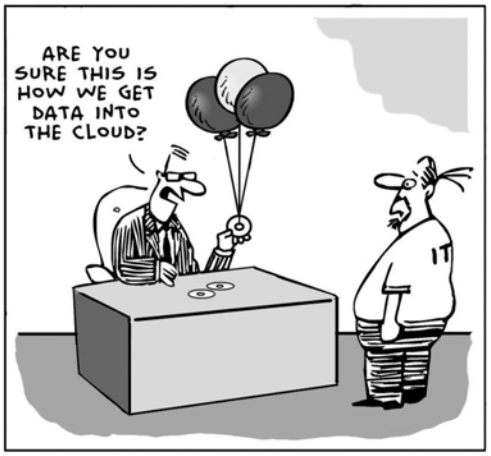
Slides prepared by Benny Mantin

Recent revolutions affecting IT

Everyone wants ipads but no-one knows what to do with them…

Innovative products for consumer markets

Recent revolutions affecting IT



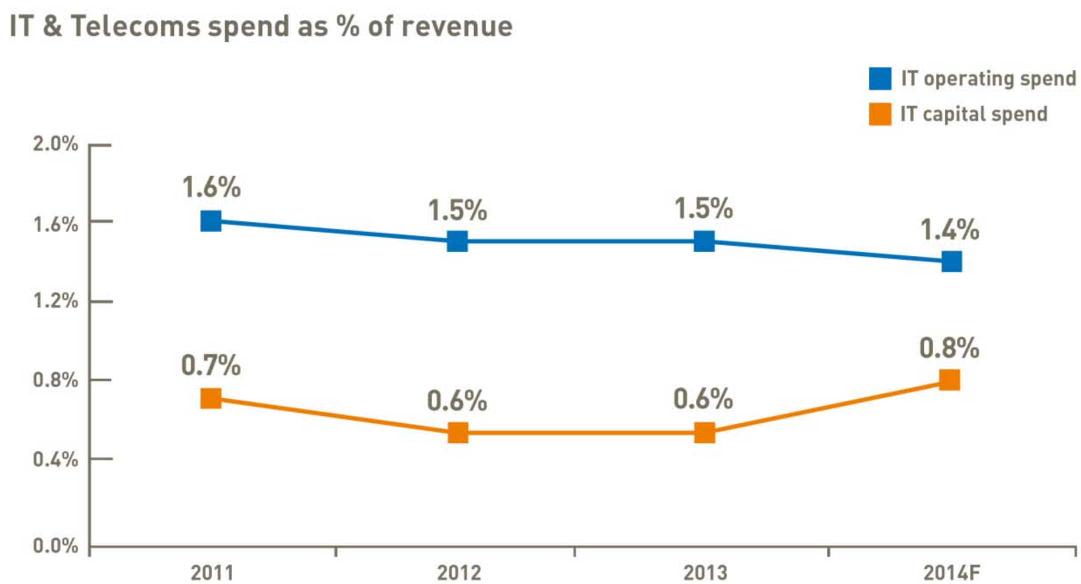
De-centralization of aviation IT

Data management;
Infrastructure;
Analytics & Visualization

PwC: 71% of airline CEOs are developing strategies for their data and analytics; 26% already have programmes

Airline IT Spending Remains Stable

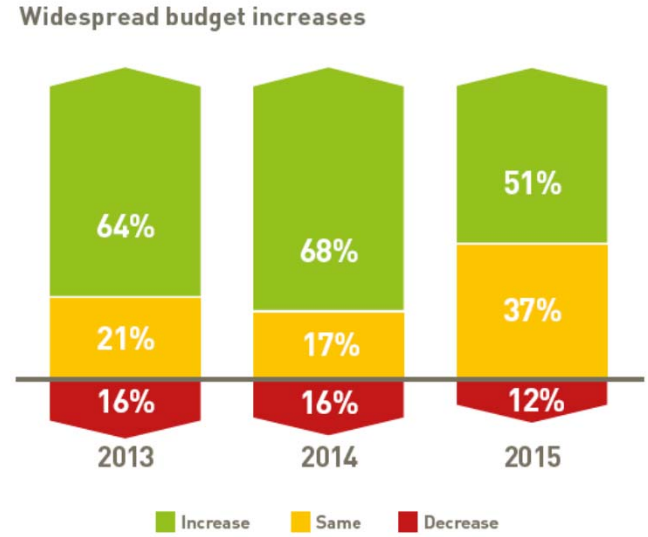
- Although IT spending as a percentage of revenue has slightly dropped in recent years, the absolute amount has been increasing due to rising industry revenues.

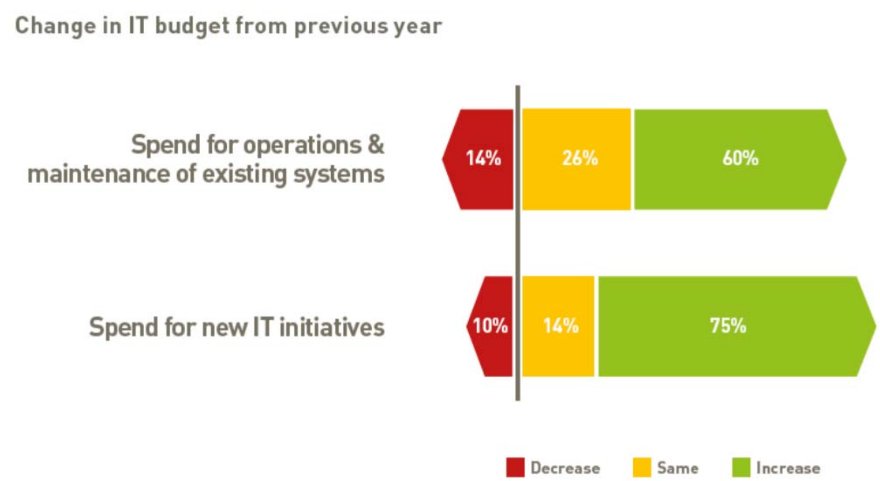


- Still, lower than historical height of 2.5+% in early 2000s

IT investment

- Widespread budget increases
- There is widespread recognition of the positive impact technology is having on air travel and its role in helping airlines stay ahead of the competition





TURKISH AIRLINES

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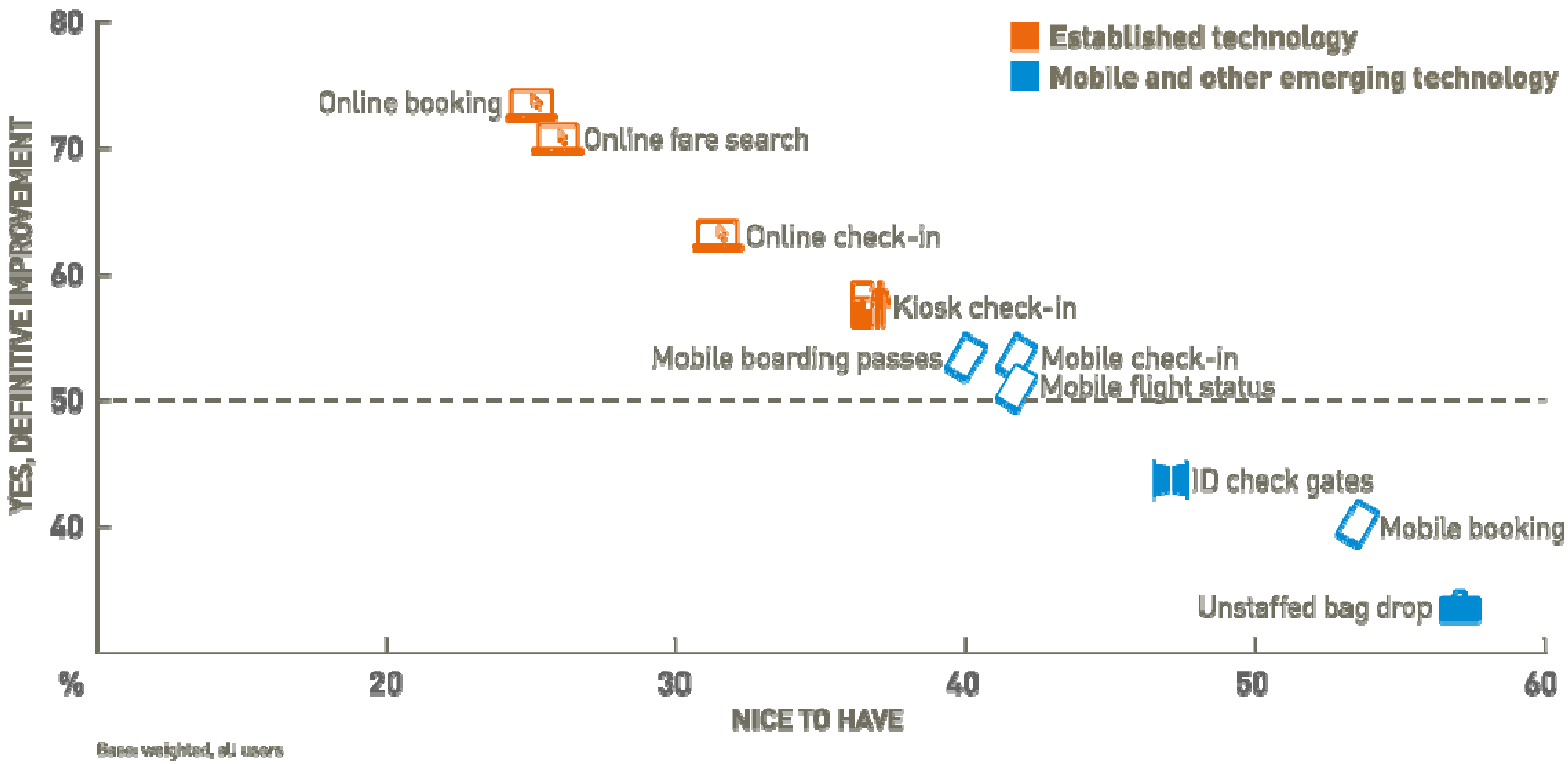
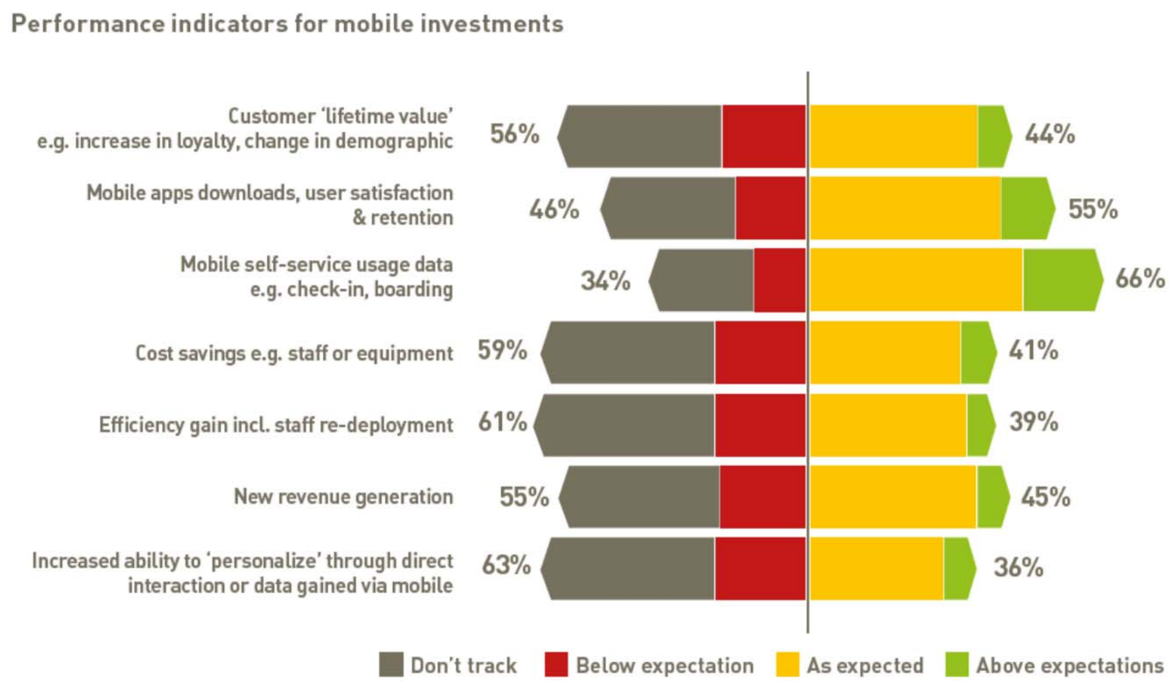
TECHNOLOGY MAKES TRAVELLING EASIER



SITA, Passenger IT Trends Survey 2013

Mobile Devices

- Disruptive technology
- 100% of airlines are investing in the mobile space
- only around 40% of airlines think mobile services are performing at least “as expected”
- over one-third of airlines do not actively track many of the key performance indicators, such as cost savings, usage data, download stats, or revenue generation.



The ancillaries landscape

How ancillaries are changing the economic landscape for airlines

Ancillary revenue generation has spread from low-cost and US carriers to full service carriers worldwide and become an increasingly important source of revenue. Airlines can now lower their base fares to offer more competitive prices to customers. Consumers can then tailor their travel with optional services according to their budget.

Ancillary revenue estimates for 2011

North America $15 billion

Europe $9 billion

Asia / Pacific $6.3 billion

Africa / Middle East $1.4 billion

Latin America /Caribbean $0.8 billion

Global revenue total: $32.5 billion = 43.8% increase from 2010

Ancillary revenue components

The US major airlines continue to produce a commanding share of global ancillary revenue. In their case, ancillary revenue components fall as:

30% Other services (eg onboard meals, WIFI, hotel bookings etc)

20% Baggage fees

50% Frequent flyer point sales

Ancillary service categories include

A la carte

- Onboard food and beverage sales
- Checking baggage / excess baggage
- Assigned seats / seat upgrades
- Access to VIP lounges
- Priority check-in and screening
- Early boarding benefits
- Onboard entertainment systems
- Wireless internet access

Commission-based

- Hotel accommodation sale commission
- Car rentals sale commission
- Travel insurance sale commission

Frequent flyer

- Sale of miles or points to program partners:

Hotel chains and car rental companies, co-branded credit cards, online malls, retailers, communication services

Advertising

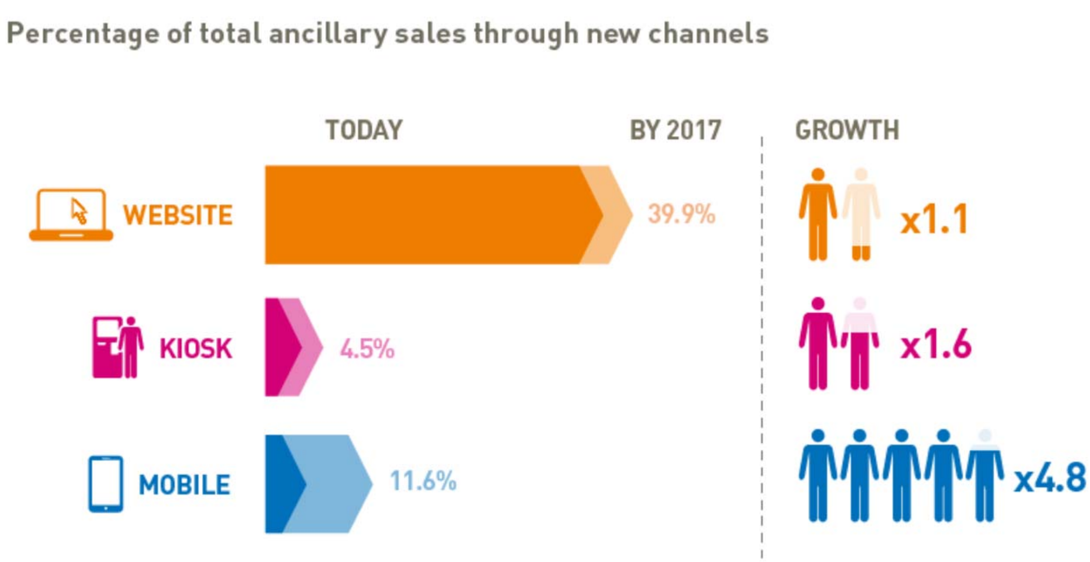
- Revenue generated from the inflight magazine
- Advertising sold in or on aircraft, loading bridges, gate areas, airport lounges
- Fee-based placement of consumer products and samples

Data based on the financial data disclosed by 203 airlines worldwide. Of the 203 airlines, 47 reported revenue details identifying ancillary activities. Airlines which are privately owned and don't disclose financial results are not included in this analysis.

Source: The Amadeus Worldwide Estimate of Ancillary Revenue by IdeaWorks

Ancillary Services

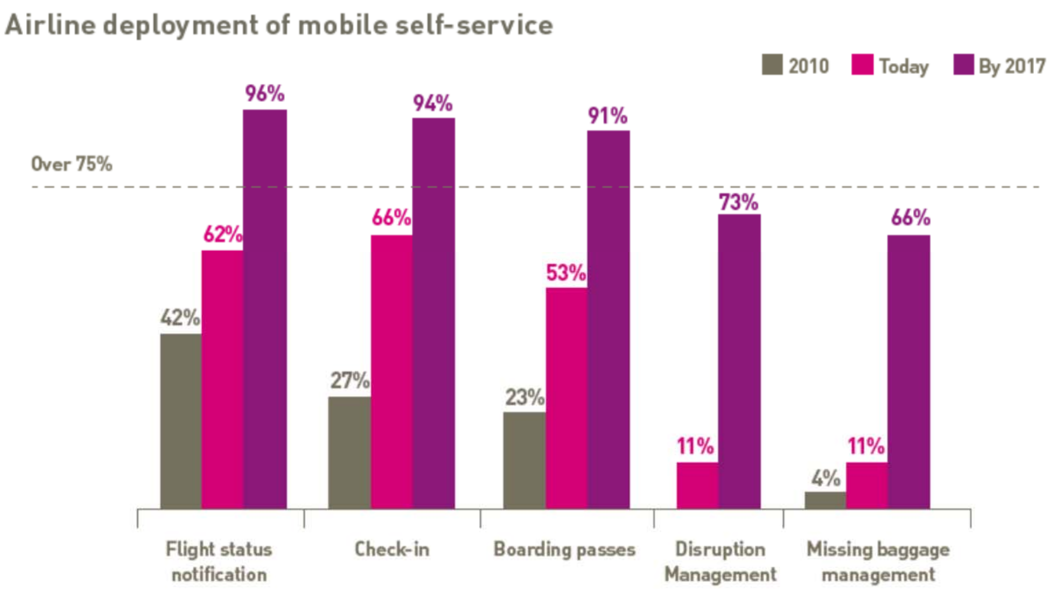
- 98% of airlines plan to invest in ancillary service expansion in the next 3 years
- Currently 37% of ancillary sales come through websites, while 2.4% are via mobile phones

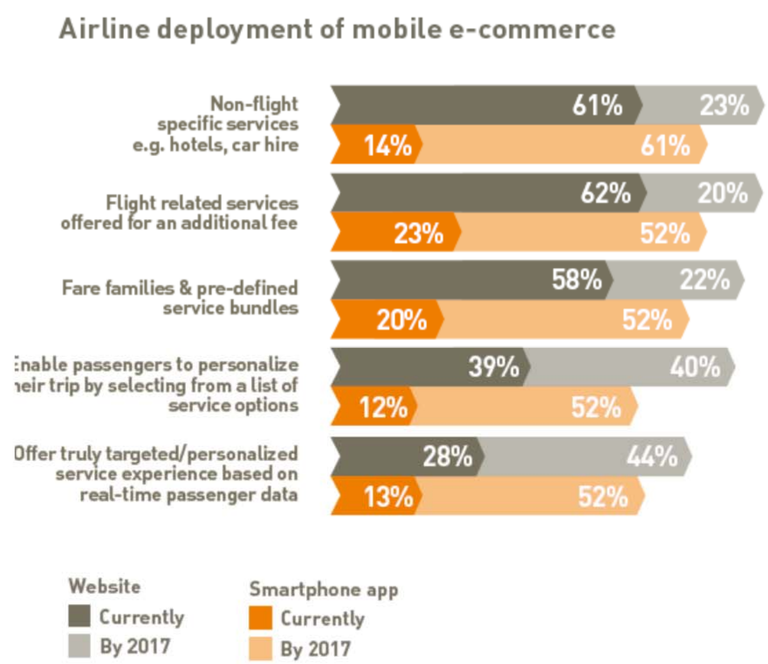


Mobile services

- Can offer targeted/personalized services
- Real-time
- Value-added services:
  - Flights status
  - Baggage
  - Disruption management

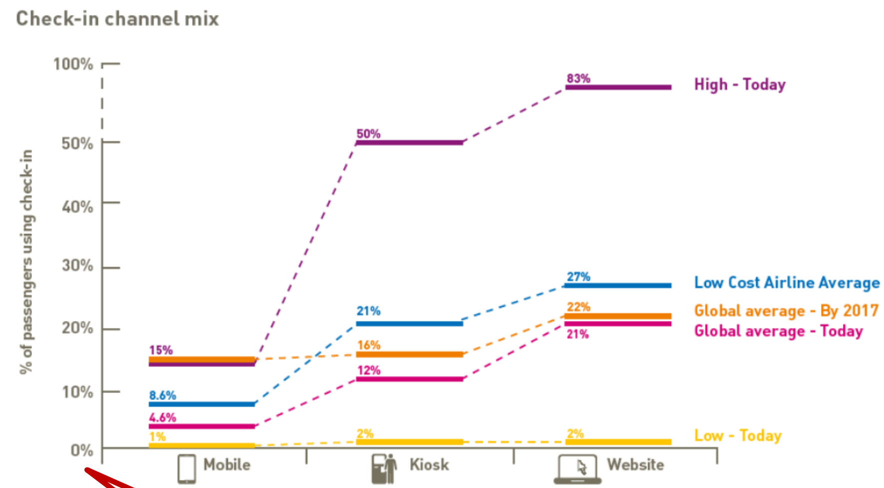
Mishandled bags, 26 million in 2012, cost airlines nearly $3 billion.

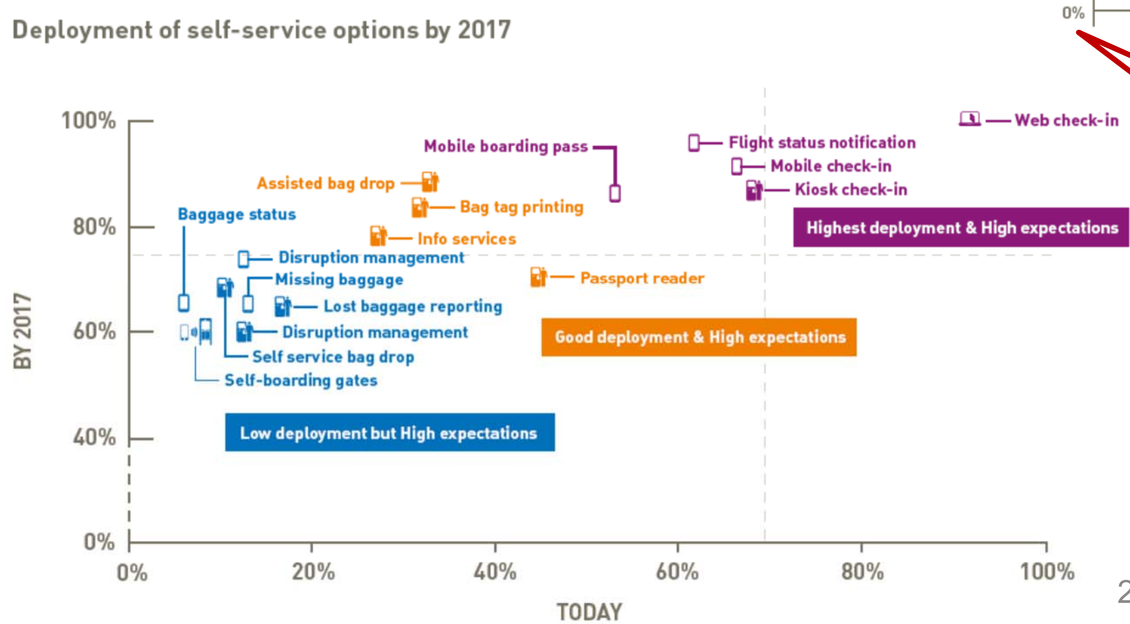




Self-Service

- Nowadays 30% book tickets through airlines' websites
- Check-in follows a similar path:
  - 38% use mobile, kiosk or web, up from 28% in 2010)
  - Wide variability
  - Cultural, infrastructure differences
- Next: self-service baggage, disruption management





Disruption management – my experience:

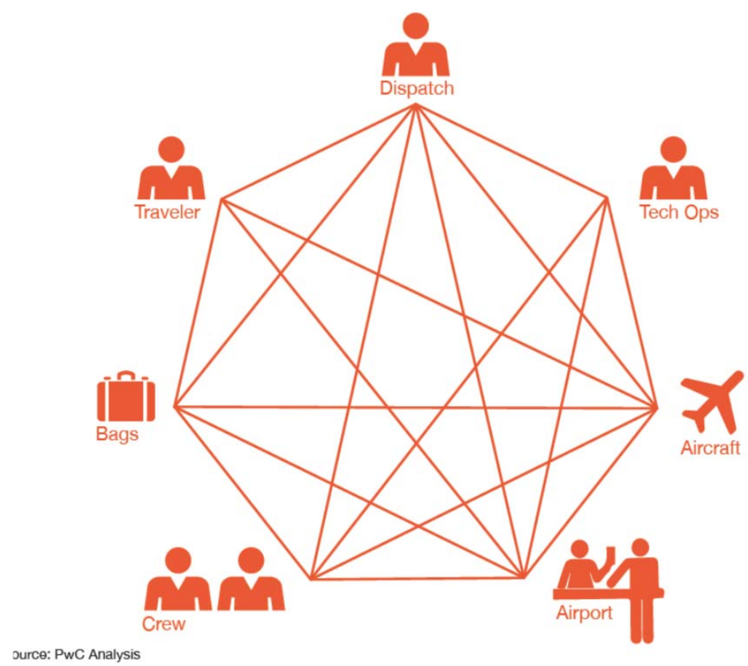
- Flight overbooked, delayed
- Once seated, I grabbed phone to switch to flight mode
- Just then got a text message: your flight has been delayed…

2014 AIRLINE IT TRENDS SURVEY | © SITA

The connected airline

- Current approach: mostly independent management of data

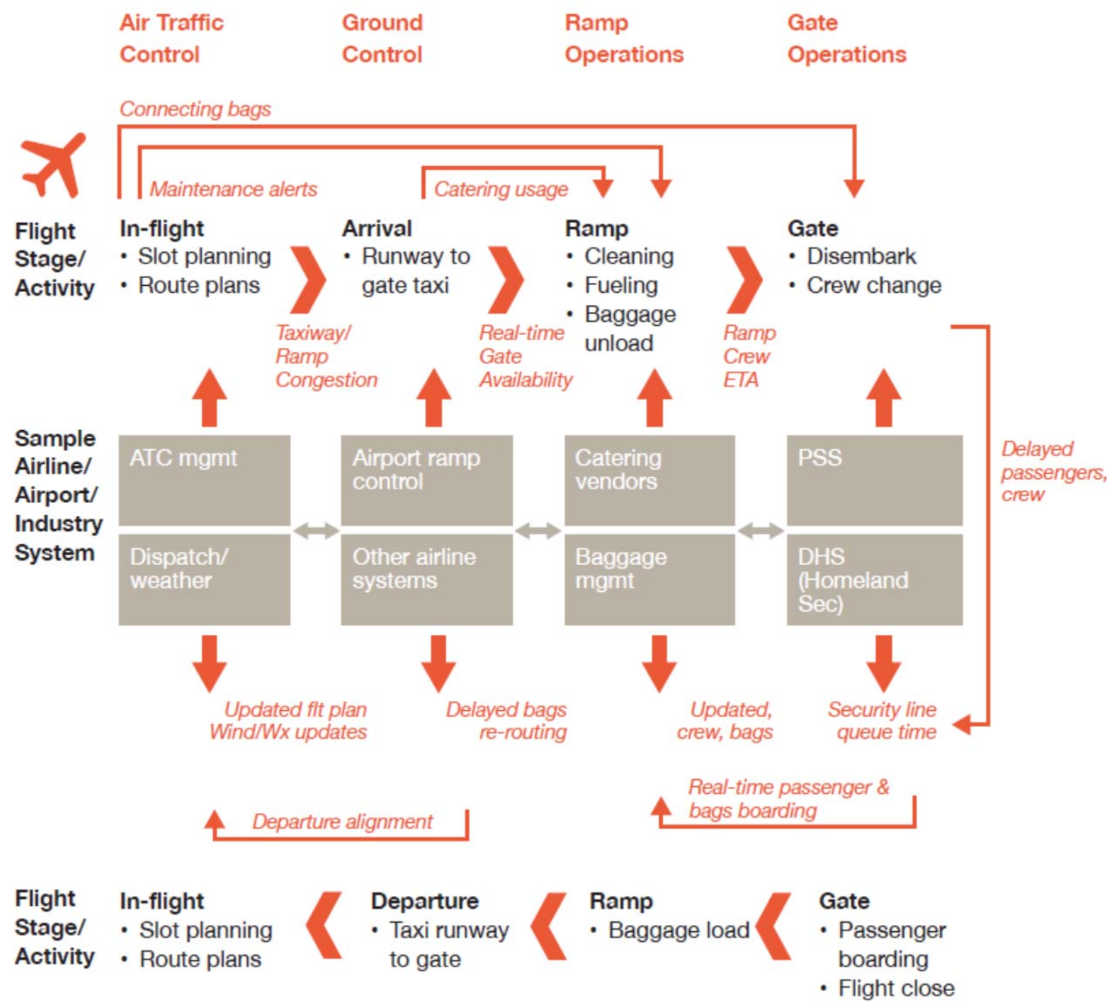
- Connected airlines:
  - Make critical information readily available to all stakeholders



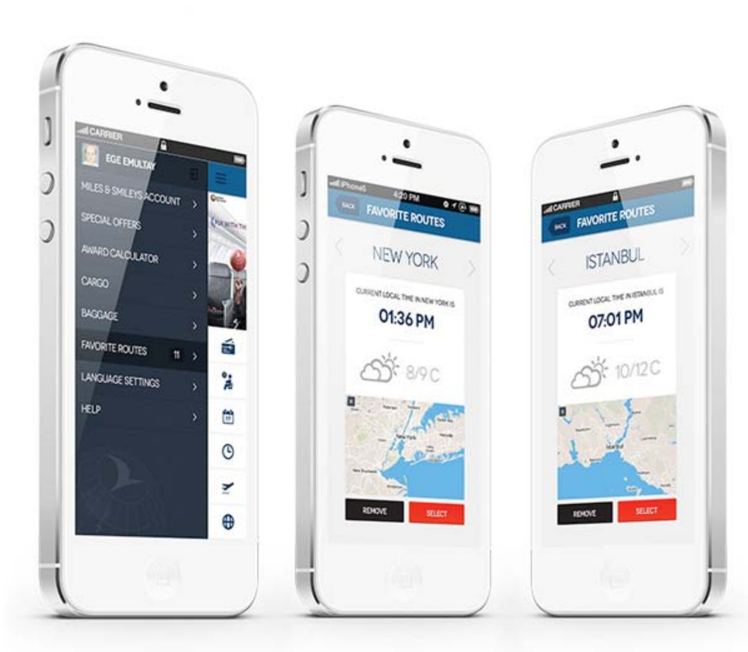
Source: PwC

The connected airline

- Optimizing the turn cycle according to PwC

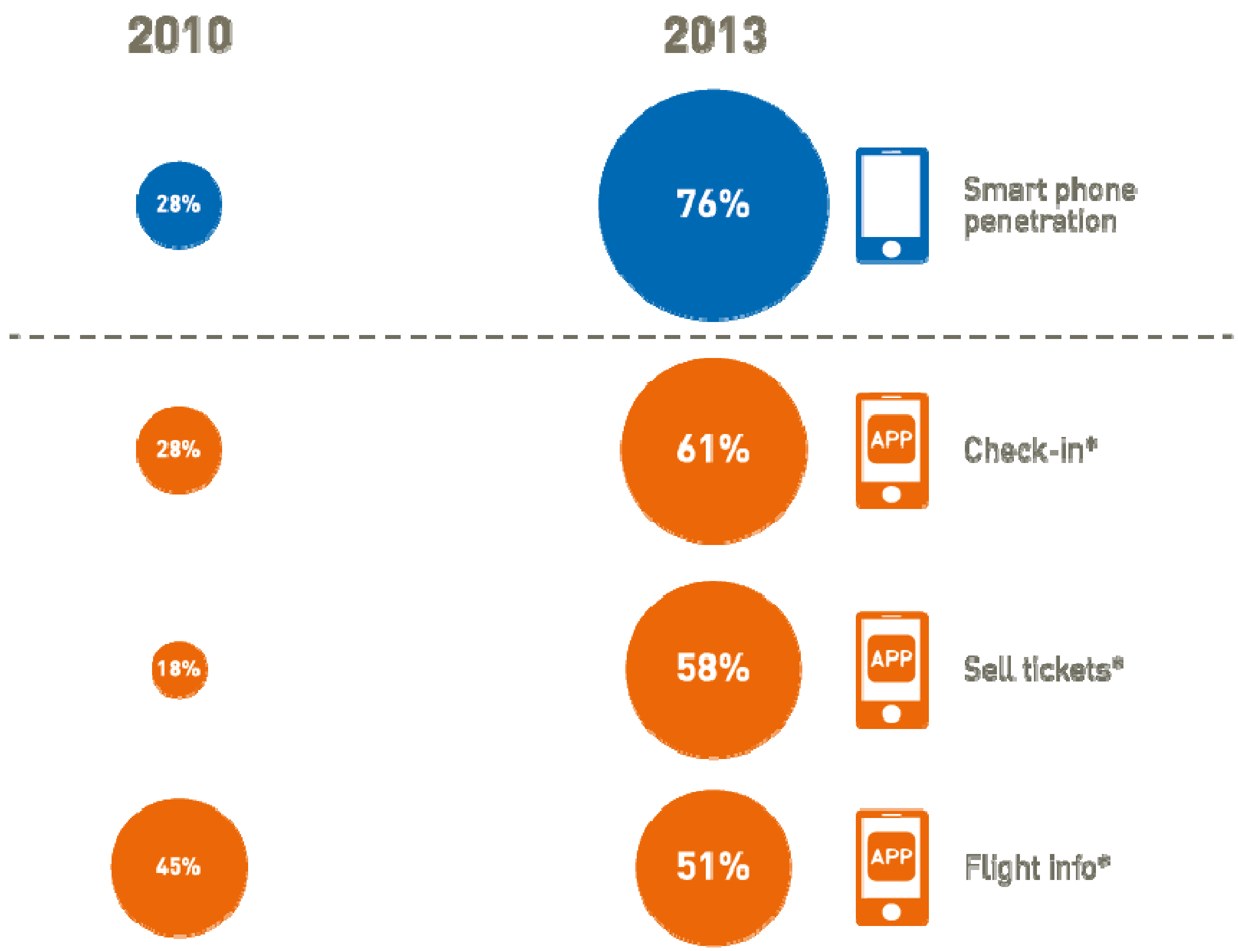


GOING MOBILE




The always-connected traveller:
How mobile will transform the future of air travel
The global study identifies traveller attitudes to airline mobile services whilst also highlighting emerging mobile technologies set to transform each stage of the travel experience.
Importance of each step
"When flying, how important are the following 6 steps for your overall airline travel experience?"
Leaving the airport 11.1%
Post-trip 7.1%
At the airport 16.1%
Connecting 12.8%
On-board 27.2%
Pre-trip 25.7%
73.4%
of the Earth's population subscribe to wireless services
1 Pre-trip
The most important stage of the process. Passengers are looking for easy ways to plan, book and board the plane
2 At the airport
Mobile is used if things go wrong with the travel experience i.e. lost bags, seating and disruption
3 On-board
A unique opportunity for airlines to provide enhanced services with the increase in connectivity on planes
4 At the destination
Passengers are increasingly using mobile to explore, connect, and share experiences
5 Post-trip
Social media provides an immediate outlet for feedback from customers
Global mobile subscribers
The number of worldwide subscriptions for wireless services reached 5 billion in September 2010. The worldwide smart-phone market grew 79.7% year on year in the first quarter of 2011 (1Q11), according to the International Data Corporation (IDC) Worldwide Quarterly Mobile Phone Tracker.
5bn
2007
2008
2009
2010
2011
2012
2013
2014
Booked!
16%
of travellers surveyed currently use smartphones to book trips
Trends for Brighter, Bolder, Better travel
For more information visit:
www.amadeus.com/alwaysconnectedtraveller
amadeus
Your technology partner

Mobile: penetration and apps



* % of airlines with apps
Airline IT Trends Survey 2013

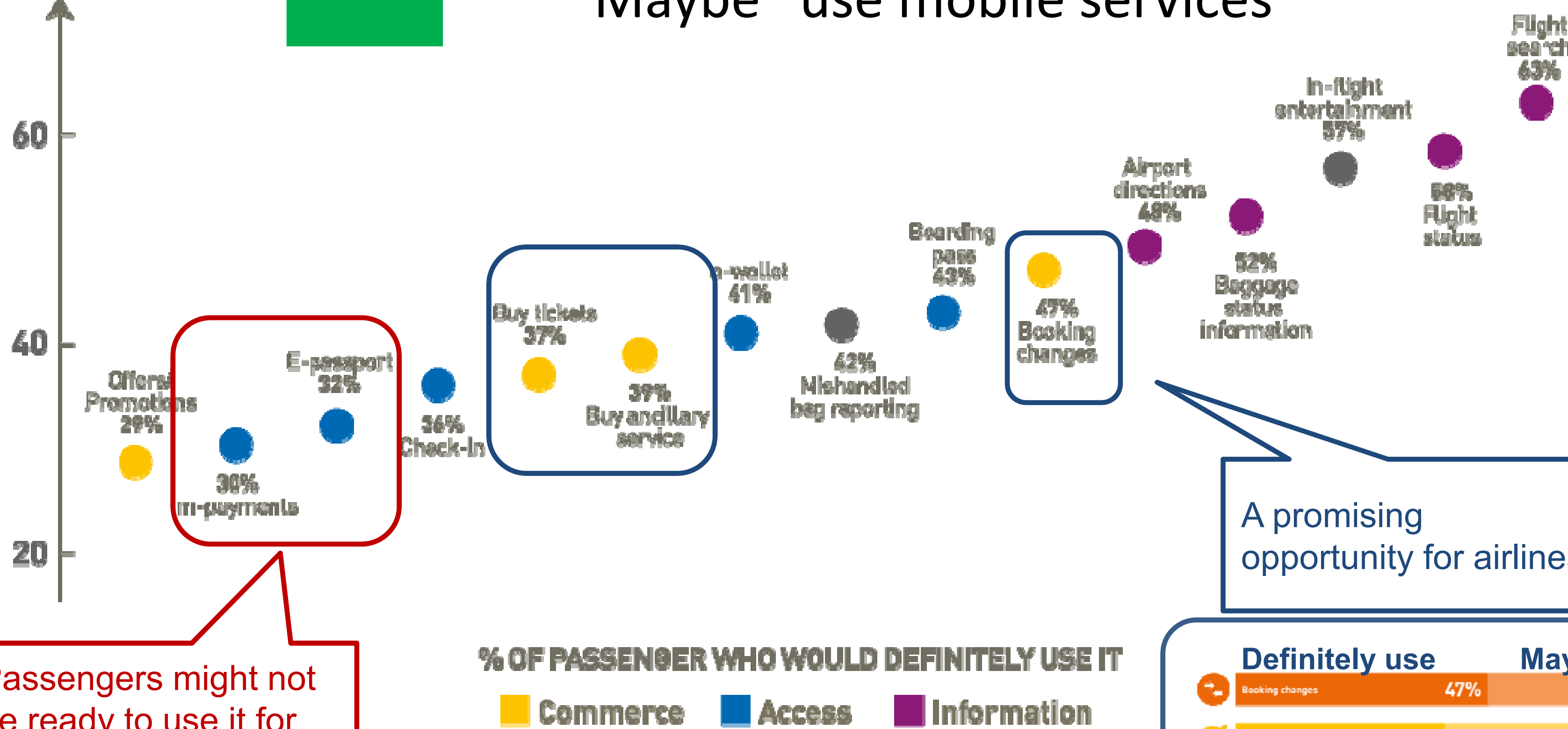
Source: SITA

Types of mobile services

Additional

20-30%

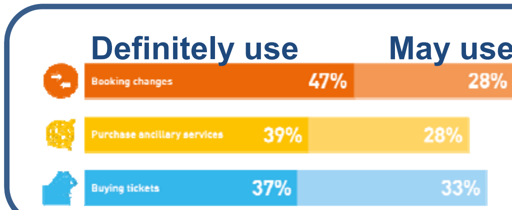
“Maybe” use mobile services



Source: SITA

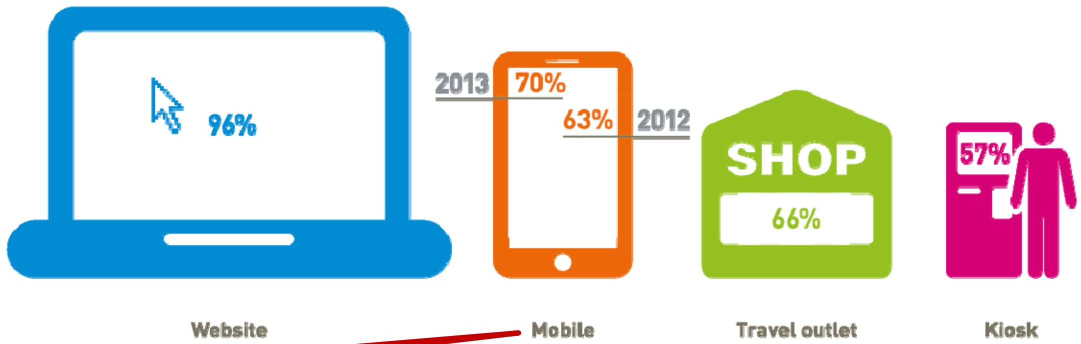
Passengers might not be ready to use it for sensitive information!

A promising opportunity for airlines

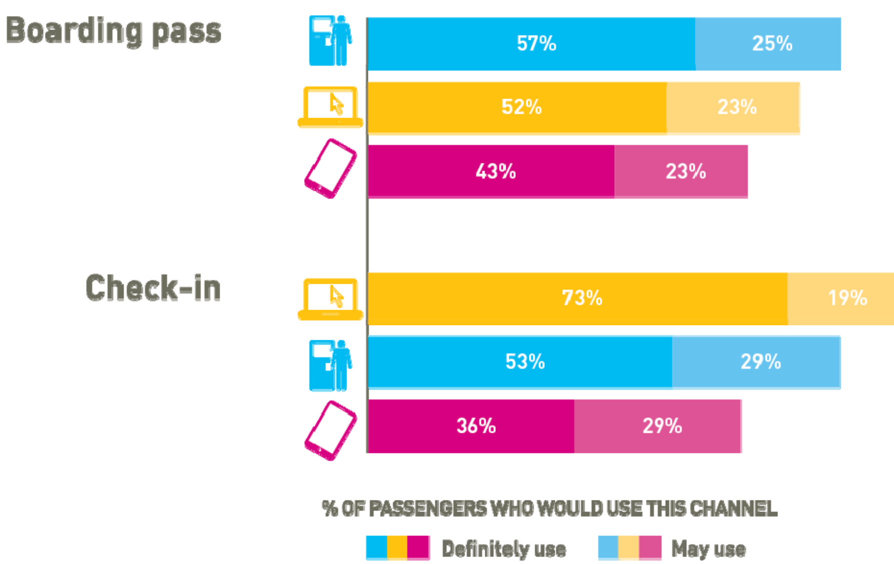


Popularity: mobile vs other channels

Web bookings

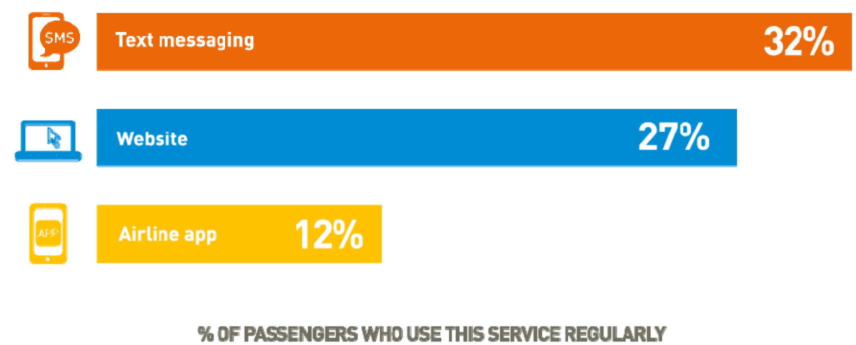


Mobile still behind, but trending up!



Mobile is preferred channel

Flight info updates



On a recent trip to SLC I signed up for the service. I received the delay update while on the plane moments before the flight took off…

Source: SITA

Passengers want to stay connected on board

Interest in in-flight services on mobile devices

85%	73%	70%	63%	53%	48%	46%
Access to entertainment	Access to email	Flight info e.g. connections	Phone calls	Order/ purchase meals	Purchase onboard duty free	Promotions and offers

% OF PASSENGERS WHO WOULD (DEFINITELY/MAYBE) USE THIS SERVICE

Source: SITA

IT/IS time horizon

Short term

Web improvements

RFID

Deeper adoption/integration of mobile services

Additive manufacturing (3D printing)

Data Analytics & Visualization

Cloud computing

Wearable devices

IATA's NDC

De-centralization of IT

The connected airline

Long term

IT: a top area for change

Now 1

Big changes underway or completed

- ***36%*** Talent strategies
- ***29%*** Technology investments
- ***29%*** Organisational structure/design
- ***27%*** Corporate governance

Tomorrow 2

Change programmes with concrete plans

- ***43%*** Organisational structure/design
- ***38%*** Investment in production capacity
- ***34%*** Customer growth and retention strategies

Future 3

Next big change strategies being mapped out

- ***38%*** Use and management of data and data analytics
- ***34%*** Technology investments
- ***33%*** R&D and innovation capacity
- ***33%*** M&A, joint ventures or strategic alliances

Bubbling under 4

Areas where airline CEOSs recognised need for change

- ***22%*** Approach to managing risk
- ***19%*** R&D and innovation capacity
- ***19%*** M&A, joint ventures or strategic alliances
- ***12%*** Channels to market

Source: Airline CEOs – PwC Global Airline CEO Survey 2014