Atmosphere NDC PAX Report

NDC : The retailing catalyst to happier passengers, happier third-parties, and happier airline partners

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IATA

ATMOSPHERE Research Group

CONTENTS

EXECUTIVE SUMMARY

Airline travel is amazing. And yet it is also more complex.

More consumers worldwide have better access to air travel today than even just a few years ago. Passengers can fly nonstop between more airports. Various technologies allow airlines and third-parties to better target travelers with a range of offers and options. A growing focus on the passenger experience produces appealing amenities available to passengers at the airport and aboard the aircraft.

To address the complexity of contemporary air travel, IATA, the trade association that represents the world's airlines, has spearheaded the development of the New Distribution Capability standard (NDC). A particular emphasis of NDC is its ability to help third-party airline distribution channels, such as retail and online travel agencies, travel management companies (TMCs), and Metasearch (price comparison) engines, receive more detailed airline content from airlines. In turn, the indirect channels can offer their customers richer, more engaging digital flight shopping experiences.

This research shows that for airlines and third-parties to successfully retail to airline passengers, the two groups need to focus on what Atmosphere calls the "three i's": immediacy, individualism, and inspiration.

- **Passengers' growing mobile-focus spurs an expectation of immediacy.** We are a mobile-centric world. Eighty-eight percent of the business passengers in our survey and four of five leisure passengers own a smartphone. Seventy percent of business passengers own tablets, as do 60% of leisure passengers. Passengers' extensive mobile device adoption provides travel agencies with an open connection to them, and passengers want agencies to use this channel. Sixty-three percent of business passengers and 69% of leisure passengers would find it helpful to receive timely promotional offers via text.

- **Passengers' desire for personalization fuels their sense of individualism.** Passengers' desire for personalization fuels their willingness to exchange their personal information for a better flight experience provided the data is kept safe and the passengers receive relevant offers in return. What's more, 68% of business passengers and 64% of leisure passengers say they would be comfortable with an airline or travel agents tracking the optional purchases they make, and letting them know when these products are available. Both third-parties and airlines will win from the ability to capture more worthwhile passenger data, and in turn use that to present more relevant offers and information to travelers.

- **Rich retailing experiences will engage and inspire passengers.** Third-parties can use product descriptions, rich content, and customer targeting to promote airline products and inspire passengers to buy them. Richer, more detailed digital airline retailing resonates with passengers. A large majority of passengers who saw examples from IATA's online OTA retail demonstration felt it was a "significant improvement" compared to existing OTA flight shopping displays. A more comprehensive shopping experience may also help third-parties attract additional customers: 65% of leisure passengers and 69% of business passengers said that they would be more likely to check a travel agency that presented flight options online using the richer retailing concepts.

Today's always-connected traveler wants to receive real-time, relevant offers from both direct and indirect channels. Passengers believe these more retail-like flight displays can save them time, improve their knowledge of available products, and help them better understand the total cost of their trip. The result? Happier, more satisfied passengers.

The NDC standard enables third-parties to play a more integrated role in airline retailing. NDC's role as an enabler can facilitate greater passenger engagement with flight shopping through third-parties through a faster time to market with airline offers and a richer retailing experience.

INTRODUCTION

INTRODUCTION FROM ATMOSPHERE RESEARCH

Atmosphere Research Group is honored to have participated in this project. The diverse global airline passenger market makes it vitally important for airlines, third-party distribution organizations, and NDC providers to have an objective, accurate, and detailed perspective of what passengers expect when they shop for and book their flights. Airline retailing is a truly exciting development for our industry. It provides airlines and their travel agency partners with improved abilities to create products and experiences that meet travelers' needs. We are encouraged by passengers' extremely favorable responses to the richer, more engaging flight shopping experiences that NDC enables, and hope you find this report to be a helpful resource.

RESEARCH METHODOLOGY

IATA's New Distribution Capability standard (NDC) is a bold, broad-based initiative intended to modernize the way airline products are distributed through third-party channels, including retail and online travel agencies, consolidators, travel management companies (TMCs), Metasearch engines, and others.
Any technology-based initiative will only work if its intended customer sees a benefit in using it. For this report, the "intended customer" is the airline passenger. To learn what passengers expect from digital flight shopping and booking, and how they would respond to NDC-enabled flight shopping and booking, IATA hired Atmosphere Research Group, a full-service, independent travel industry research firm, to develop and field a global survey of airline passengers, analyze the study's results, and write this report using those findings as the core part of its content.

This study was conducted against the background of several factors. At the center is the always-connected passenger. Next, there is the complex nature of today's airline product, which serves as the inspiration for IATA's NDC standard. Product choice and personalization are fairly new to all parts of the airline distribution channel. Airlines' differentiated product needs have changed from the pure fare-related products of old. The many types of third-party intermediaries that exist offer carriers a wide-ranging number of new "shelves" worldwide through which, enabled by NDC processes and solutions, airlines can sell their branded fares and ancillary products.

Survey Methodology Details

To capture the consumer insights used in this report, IATA and Atmosphere collaboratively developed a 12-minute online survey. The survey was fielded in August and September 2015. Survey participants were at least 18 years old. Participants were required to have taken at least one round-trip airline flight for business, leisure, or a combination of the two within the 12 months preceding the date of the survey.

A total of 4,988 airline business and leisure passengers in eight countries participated: Australia; Brazil; Canada; Germany, Mexico: Singapore; the United Kingdom; and the USA. Consumers could take the survey in English, French Canadian, German, Spanish, and Portuguese. All responses were anonymous; no personal or other information about participants was stored or collected. Only responses from fully completed surveys are included in the data used for this report.

To ensure we would have enough data to allow accurate and meaningful analysis based on factors such as gender, age, and trip frequency, we surveyed a large number of passengers in each country, as follows:

Australia:	516
Brazil:	504
Canada:	610
Germany:	507
Mexico:	513
Singapore:	303
UK:	1,026
USA:	1,009

Figure 1-1:   The Majority Of Business Passengers Surveyed Are Less Than 50 Years Old
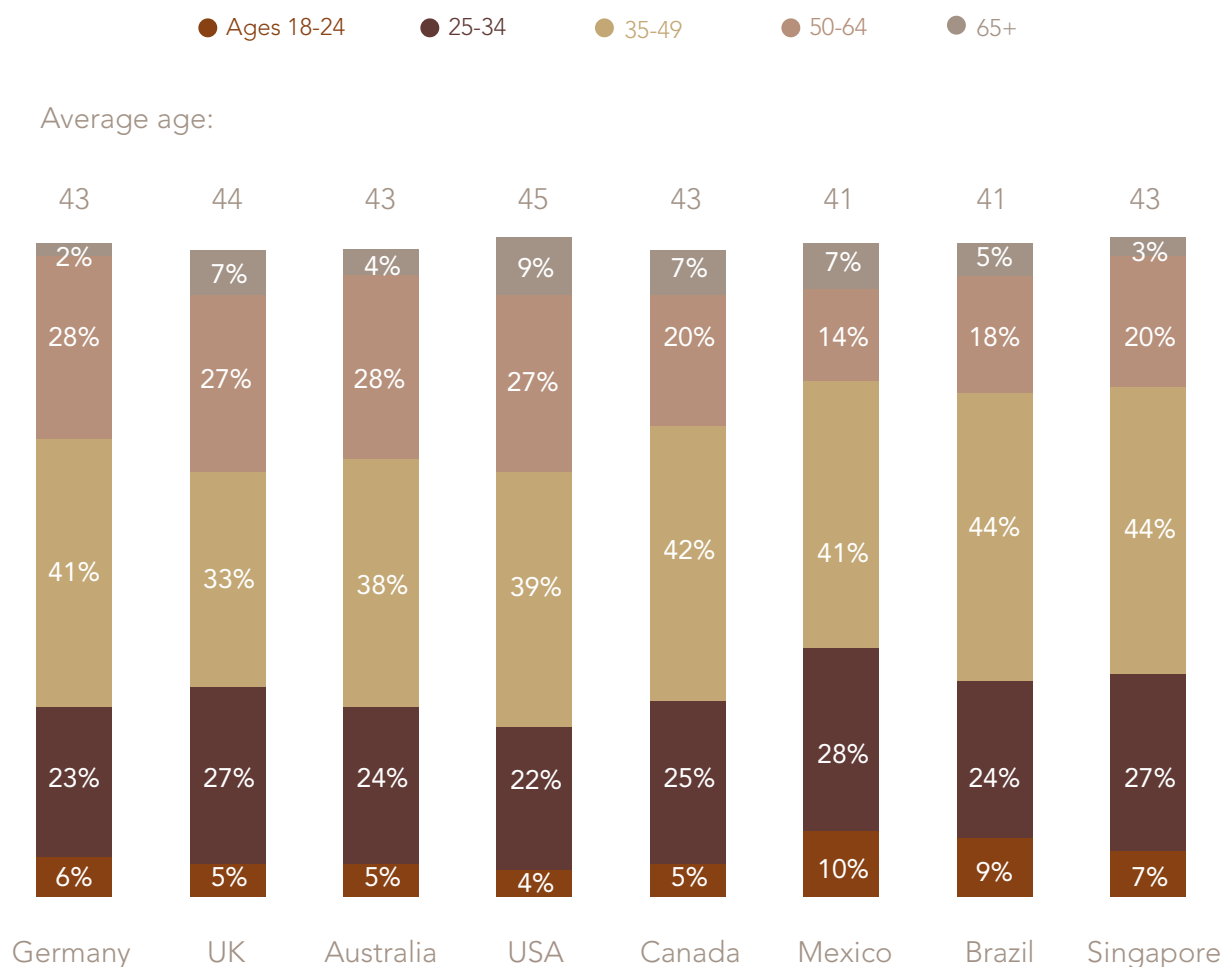
● Ages 18-24   ● 25-34   ● 35-49   ● 50-64   ● 65+

Average age:

43	44	43	45	43	41	41	43
2%	7%	4%	9%	7%	7%	5%	3%
28%	27%	28%	27%	20%	14%	18%	20%
41%	33%	38%	39%	42%	41%	44%	44%
23%	27%	24%	22%	25%	28%	24%	27%
6%	5%	5%	4%	5%	10%	9%	7%
Germany	UK	Australia	USA	Canada	Mexico	Brazil	Singapore

(Numbers may not total 100 due to rounding)
Base: Online leisure passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 4,777)

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To have meaningful data to analyze, we established a quota that at least 30% of the participants in each country had to be business passengers. No other quotas, such as demographics or trip frequency, were used.

The passengers in our study were very diverse. Of note is that business passengers are younger than leisure travelers, suggesting a "passing of the torch" from older generations of business passengers, such as "Baby Boomers," to younger generations of travelers *(see Figure 1-1 and Figure 1-2)*. Of note are the relatively large number of leisure passengers in Brazil and Mexico, two developing

countries, and Singapore under age 35. These consumers bring unique perspectives and expectations to the air travel marketplace.

Figure 1-2: Leisure Passengers In Brazil, Mexico And Singapore Are Noticeably Younger Than Passengers In Other Countries

● Ages 18-24 ● 25-34 ● 35-49 ● 50-64 ● 65+

Average age:

	Germany	UK	Australia	USA	Canada	Mexico	Brazil	Singapore
Average age	44	48	46	49	47	40	42	42
65+	8%	17%	15%	18%	17%	6%	9%	7%
50-64	29%	33%	28%	31%	28%	20%	21%	25%
35-49	35%	27%	28%	27%	29%	34%	37%	34%
25-34	20%	18%	20%	19%	18%	25%	23%	20%
18-24	8%	6%	9%	5%	8%	15%	10%	13%

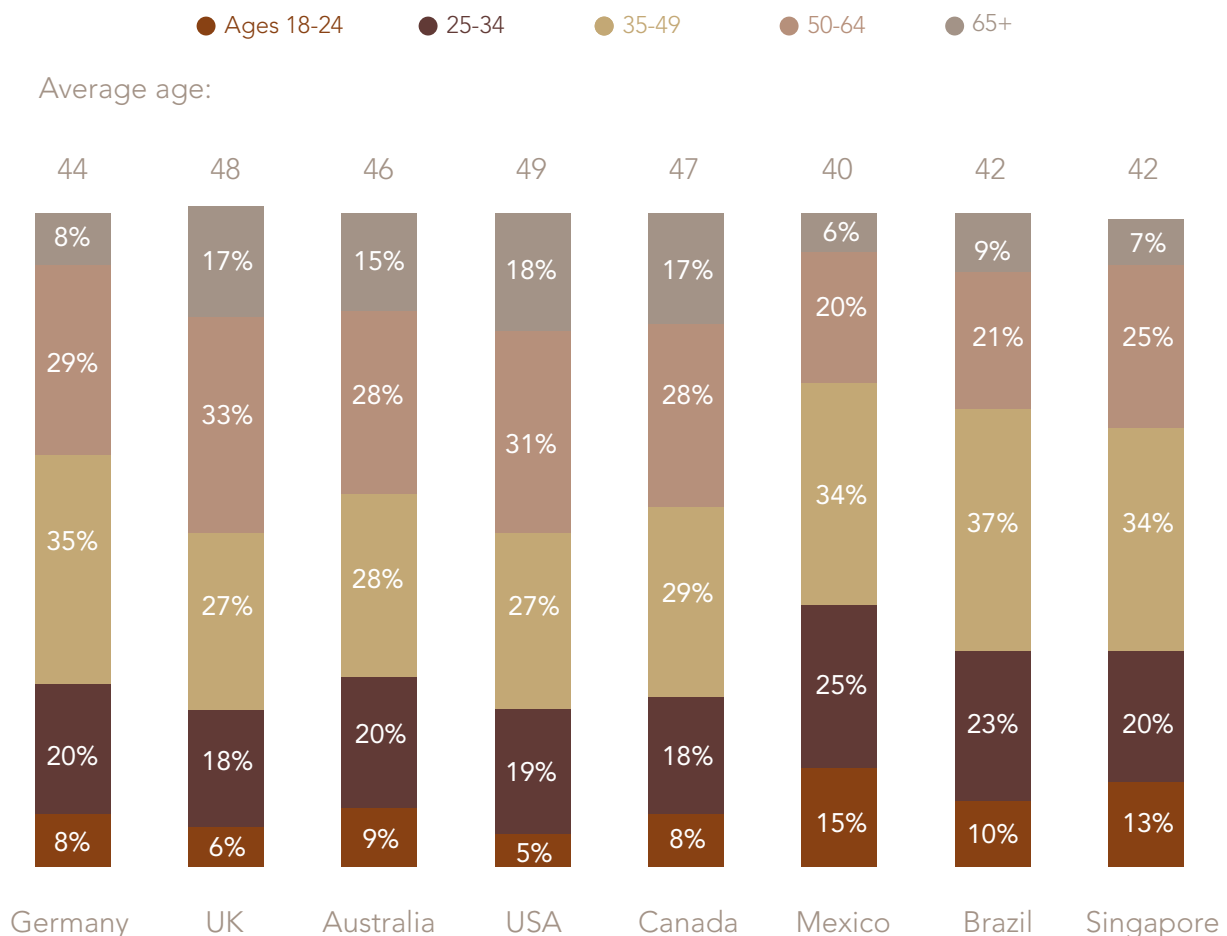*(Numbers may not total 100 due to rounding)*
Base: Online leisure passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 4,777)

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IMMEDIACY, INDIVIDUALISM, AND INSPIRATION DRIVE FLIGHT SHOPPING AND BOOKING

Airline passengers want what they want. Sometimes they want the same thing. And sometimes they don't.

For most people, planning a trip isn't about the flight, it's about what will occur at the destination. Airlines and their partners have a responsibility – and an opportunity – to provide passengers with more intuitive flight search and booking experiences.

Three clear points emerged from the research. First: The near omnipresence of mobile technologies among passengers. Second, passengers' expectations of highly personalized flight shopping and booking. Third, a desire for richer, contextual content integrated into flight shopping. We've clustered these three factors into "three i's"; **IMMEDIACY, INDIVIDUALISM, AND INSPIRATION**.

TECHNOLOGY, LED BY MOBILE, SPURS PASSENGERS' DESIRES FOR IMMEDIACY

Technology is everywhere, especially in the pockets and bags of airline passengers. Across the eight countries researched for this report, we saw how airline passengers consistently:

- **Appreciate technology.**

Passengers in our survey view technology as a welcome, helpful enabler *(see Figure 2)*. It's not just younger passengers who appreciate technology, either. Eighty-seven percent of business passengers ages 25 to 34 agree with the statement "Technology makes my life easier," as do 82% of business passengers ages 50 to 64[1]. Effectively employing consumer-facing digital technology can benefit a travel company's bottom line: Atmosphere's own research shows that 58% of US business passengers and 44% of US leisure passengers choose travel brands, including airlines and third-parties, in part based on how easy it is to use their websites, apps, and kiosks[2].

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[1] Based on passengers who responded to this statement with a 4 or 5 on a 5-point scale.

[2] Source: Atmosphere Research

Figure 2: Passengers See Roles For Technology In Their Lives
Percent who agree with the following statements (answer 4 or 5 on 5-point scale)
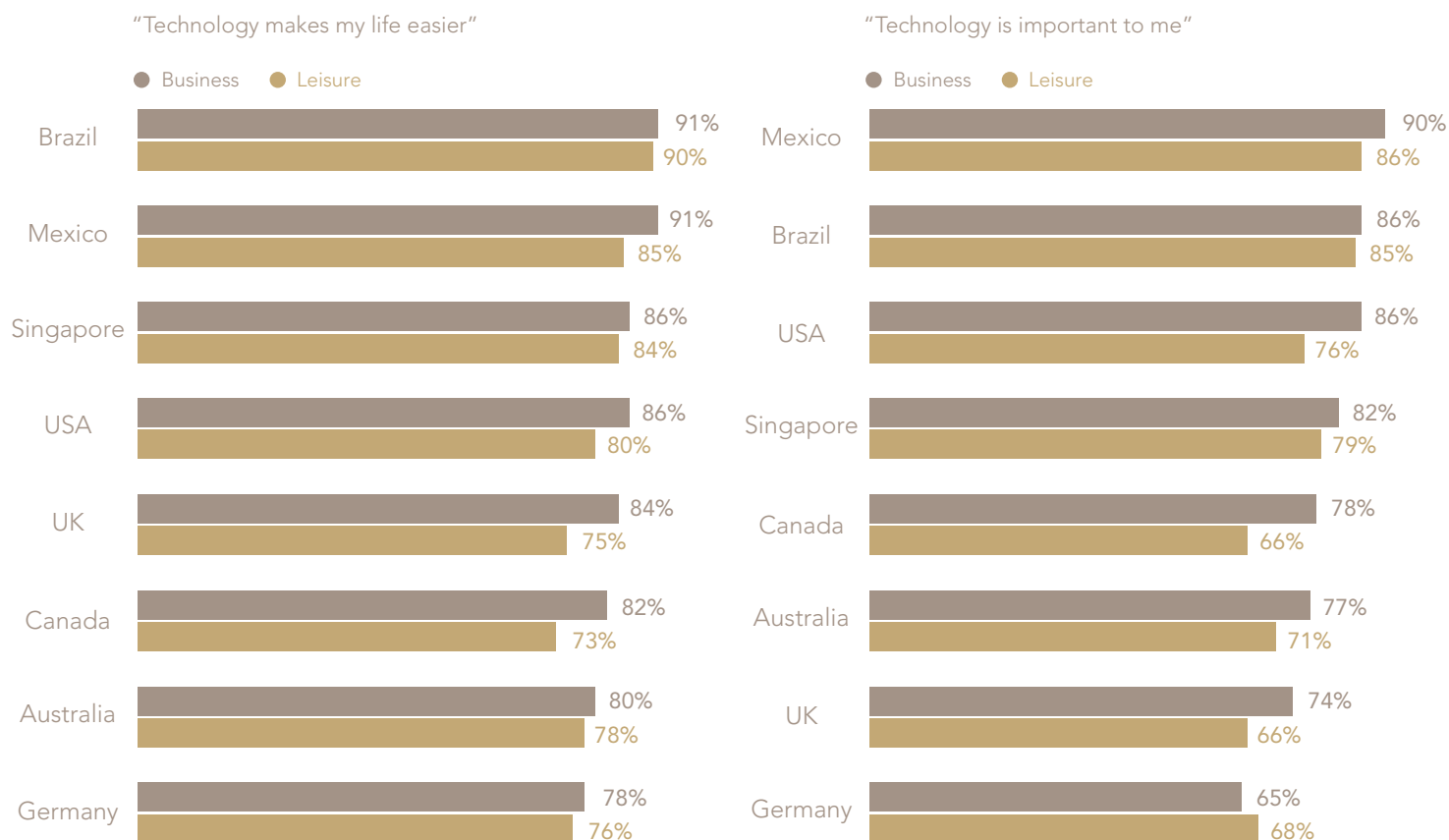
"Technology makes my life easier"

● Business ● Leisure

Country	Business	Leisure
Brazil	91%	90%
Mexico	91%	85%
Singapore	86%	84%
USA	86%	80%
UK	84%	75%
Canada	82%	73%
Australia	80%	78%
Germany	78%	76%

"Technology is important to me"

● Business ● Leisure

Country	Business	Leisure
Mexico	90%	86%
Brazil	86%	85%
USA	86%	76%
Singapore	82%	79%
Canada	78%	66%
Australia	77%	71%
UK	74%	66%
Germany	65%	68%

Base: Online business and leisure passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 4,988)

• Are mobile-focused.

The always-connected passenger is immersed in technology devices, especially smartphones and tablets. More passengers report owning smartphones than desktop computers *(see Figure 3-1 and Figure 3-2)*. Passengers' smartphone ownership narrowly trails that of laptops. Passengers consider their smartphones essential; 48% of leisure passengers and 61% of business passengers say their phones are "indispensable". Younger travelers are more likely to have this opinion.[3]

"Mobile," of course, is not limited to phones. In the UK and Singapore, passengers are as likely to own tablets as desktop computers. Wearable devices such as the Apple Watch and Fitbit already appear on passengers' wrists.

The airline industry needs to prepare for more always-connected travelers. Smartphone ownership among leisure passengers, already almost 80% now, may grow almost 9% within a year[4]. Nearly 12% of business passengers who do not own a tablet plan to buy one in the next 12 months[5].

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[3] When asked to agree or disagree with the statement "My mobile phone is indispensable and doing without it, even for a day, is non-negotiable," 52% of leisure passengers ages 18 to 24 agreed with the statement, as did 60% of 25 to 34 year olds and 56% of 35 to 49 year olds. Just 39% of 50 to 64 year olds agreed with this statement, and only 24% of leisure passengers age 65 and older agreed with it.

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[4] Seven percent of the leisure passengers in our study who do not presently own a smartphone plan to buy one in the next 12 months.

[5] Nearly 70% of business passengers in our survey currently own a tablet device.

Figure 3-1:   Business Passengers Are More Likely To Own Smartphones Than Desktop Computers
Percent of business passengers who own the following devices
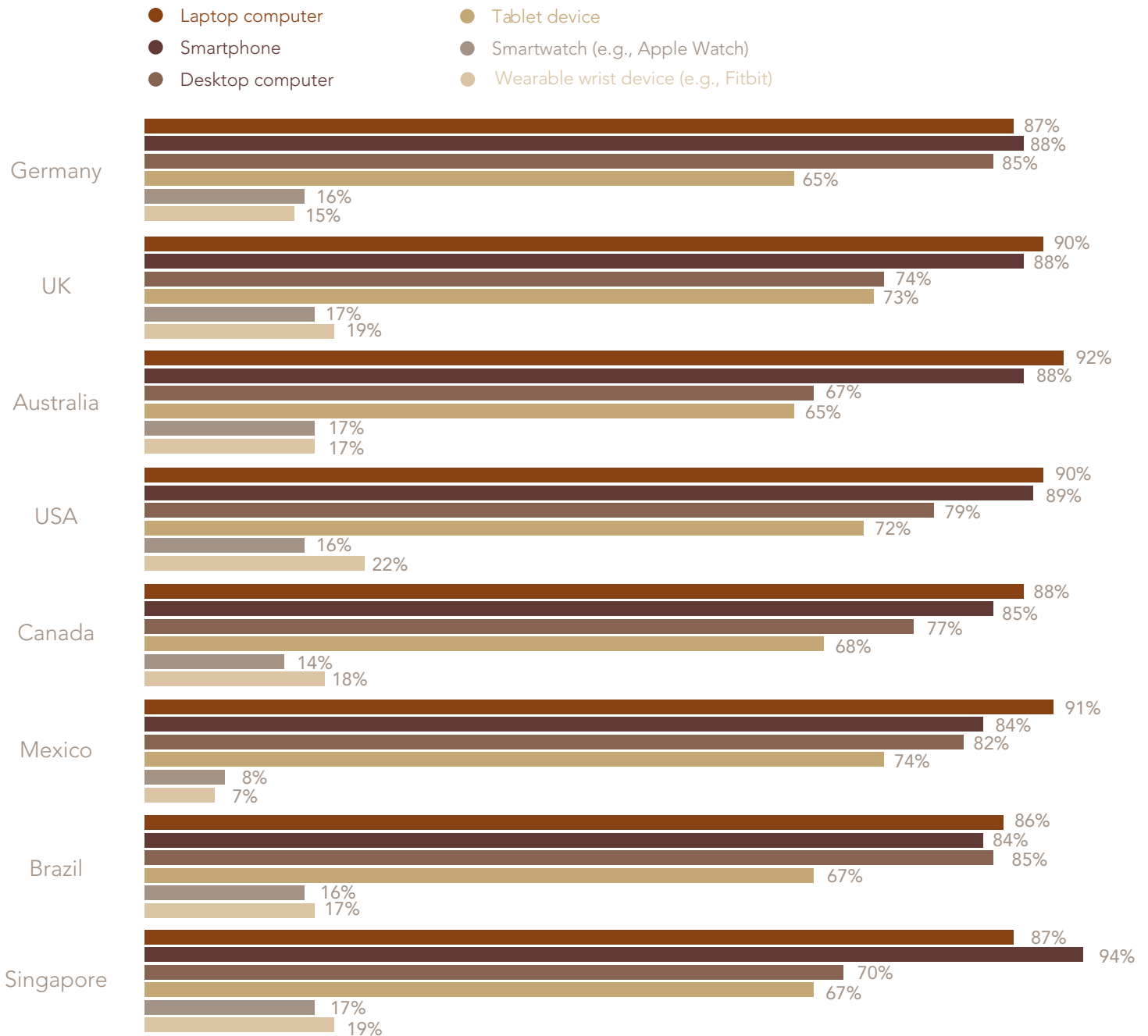
● Laptop computer   ● Tablet device
● Smartphone   ● Smartwatch (e.g., Apple Watch)
● Desktop computer   ● Wearable wrist device (e.g., Fitbit)

Germany
87%
88%
85%
65%
16%
15%

UK
90%
88%
74%
73%
17%
19%

Australia
92%
88%
67%
65%
17%
17%

USA
90%
89%
79%
72%
16%
22%

Canada
88%
85%
77%
68%
14%
18%

Mexico
91%
84%
82%
74%
8%
7%

Brazil
86%
84%
85%
67%
16%
17%

Singapore
87%
94%
70%
67%
17%
19%

Base: Online business passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 1,749)

Figure 3-2: Leisure Passengers' Ownership Of Tablets Is Close To Desktop Computers

Percent of leisure passengers who own the following devices

Legend:
- Laptop computer
- Smartphone
- Desktop computer
- Tablet device
- Smartwatch (e.g., Apple Watch)
- Wearable wrist device (e.g., Fitbit)

Germany
- Laptop computer: 84%
- Smartphone: 82%
- Desktop computer: 74%
- Tablet device: 52%
- Smartwatch: 6%
- Wearable wrist device: 7%

UK
- Laptop computer: 85%
- Smartphone: 77%
- Desktop computer: 64%
- Tablet device: 62%
- Smartwatch: 6%
- Wearable wrist device: 9%

Australia
- Laptop computer: 85%
- Smartphone: 83%
- Desktop computer: 65%
- Tablet device: 59%
- Smartwatch: 7%
- Wearable wrist device: 12%

USA
- Laptop computer: 83%
- Smartphone: 81%
- Desktop computer: 72%
- Tablet device: 61%
- Smartwatch: 7%
- Wearable wrist device: 15%

Canada
- Laptop computer: 80%
- Smartphone: 73%
- Desktop computer: 68%
- Tablet device: 55%
- Smartwatch: 5%
- Wearable wrist device: 8%

Mexico
- Laptop computer: 88%
- Smartphone: 76%
- Desktop computer: 77%
- Tablet device: 64%
- Smartwatch: 6%
- Wearable wrist device: 6%

Brazil
- Laptop computer: 79%
- Smartphone: 84%
- Desktop computer: 81%
- Tablet device: 59%
- Smartwatch: 10%
- Wearable wrist device: 11%

Singapore
- Laptop computer: 89%
- Smartphone: 93%
- Desktop computer: 65%
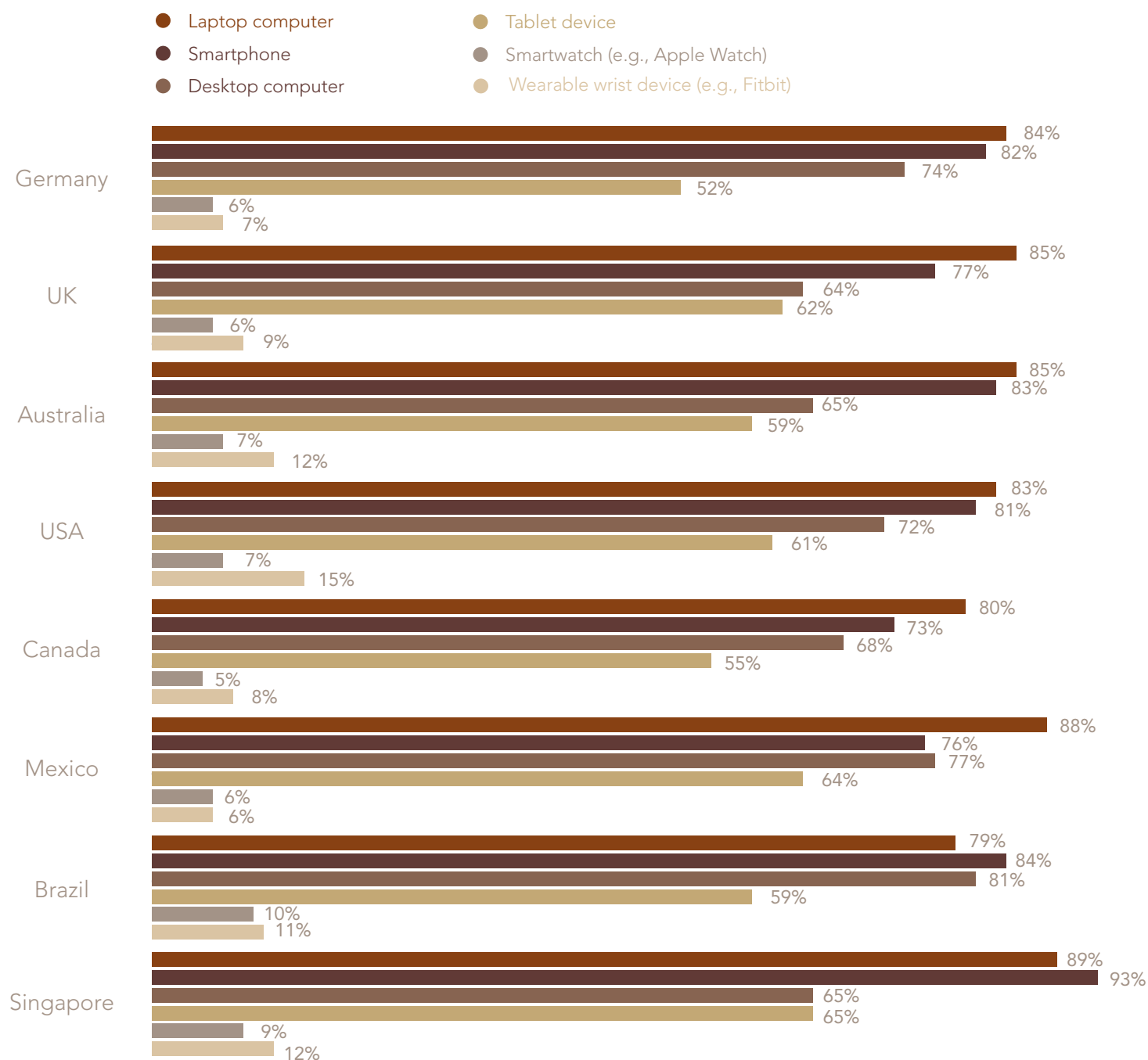- Tablet device: 65%
- Smartwatch: 9%
- Wearable wrist device: 12%

Base: Online leisure passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 4,777)

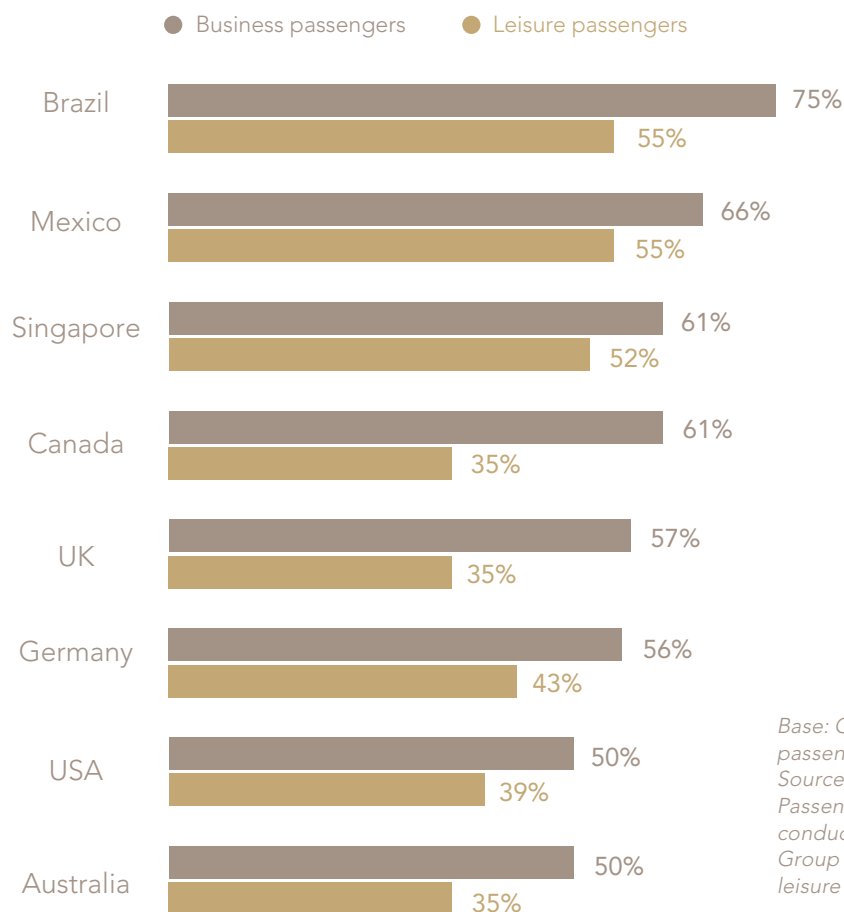## • Want to receive offers in real-time via mobile.

Consumers' appreciation for technology, their mobile-immersed lifestyles, and their interest in receiving real-time marketing offers create the sense of "immediacy." This is reinforced by external trends, such as companies' shift from using email to texting-like enterprise communications apps like Eko. What is behind this? In part, a new generation of workers for whom email is too slow.

Mobile devices offer their users multiple communications and notification platforms. Fortunately for third-parties and airlines, passengers turn their mobile devices into virtual welcome mats for them. Fifty-six percent of leisure passengers and 62% of business passengers want travel companies to email or text them in real time with promotional offers. Mobile's potential as an airline

retailing channel becomes clearer when we see how many passengers use their smartphones to research and book their flights *(see Figure 4)*. Mobile commerce ('mCommerce") may not account for a significant volume of airline reservations now, but that doesn't mean it won't grow. Consumers' comfort buying goods and services in other categories via their phones and tablets illustrates mCommerce's viability for air travel. In the US, nearly 29% of Q3 2015 online retail sales were made using mobile devices[6]. Phones with larger screens and faster data connections, coupled with flight shopping content that people find more useful, will contribute to the growth of mobile-based airline reservations.

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[6] According to Custora, a retail-industry eCommerce predictive analytics technology provider, 28.7% of Q3 2015 US digital retail purchases were made through phones and tablets, up from 23.1% of orders in Q3 2014. Source: http://blog.custora.com/2015/10/q3-e-commerce-pulse-update-holiday-2015/

Figure 4:   Passengers Show Extensive Adoption Of Smartphones To Research And Book Flights
Percent of passengers who use their smartphones to research and book flights

● Business passengers   ● Leisure passengers

Brazil: 75% / 55%
Mexico: 66% / 55%
Singapore: 61% / 52%
Canada: 61% / 35%
UK: 57% / 35%
Germany: 56% / 43%
USA: 50% / 39%
Australia: 50% / 35%

Base: Online business and leisure passengers who own smartphones Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (Business passener N = 1,371; leisure passenger N= 3,501)

INSPIRING PASSENGERS IS AT THE CORE OF BETTER FLIGHT SHOPPING AND BOOKING

Digital commerce experiences, especially for shopping and booking flights, are far from perfect. Airline passengers:

• Aren't happy with digital airline travel planning.

Nearly nine in ten business and leisure passengers are Bookers *(see Figure 5)*[7]. Leisure passengers book between 65% and 85% of their flights online, depending on the country, and business passengers book almost as much – between 63% and 83%. Digital's role as passengers' primary flight shopping and booking gateway increases the importance for airlines and third-parties to maximize its utility and usefulness.

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[7] A "Booker" is an online traveler who researches and purchases some portion of her or his travel via the Internet. A "Looker" is an online traveler who researches her or his travel online, but books all travel via offline channels. A "Sideliner" is a traveler who uses the Internet for various activities, but neither researches nor buys any travel online.

Figure 5:   Almost Nine In Ten Passengers Buy Travel Online
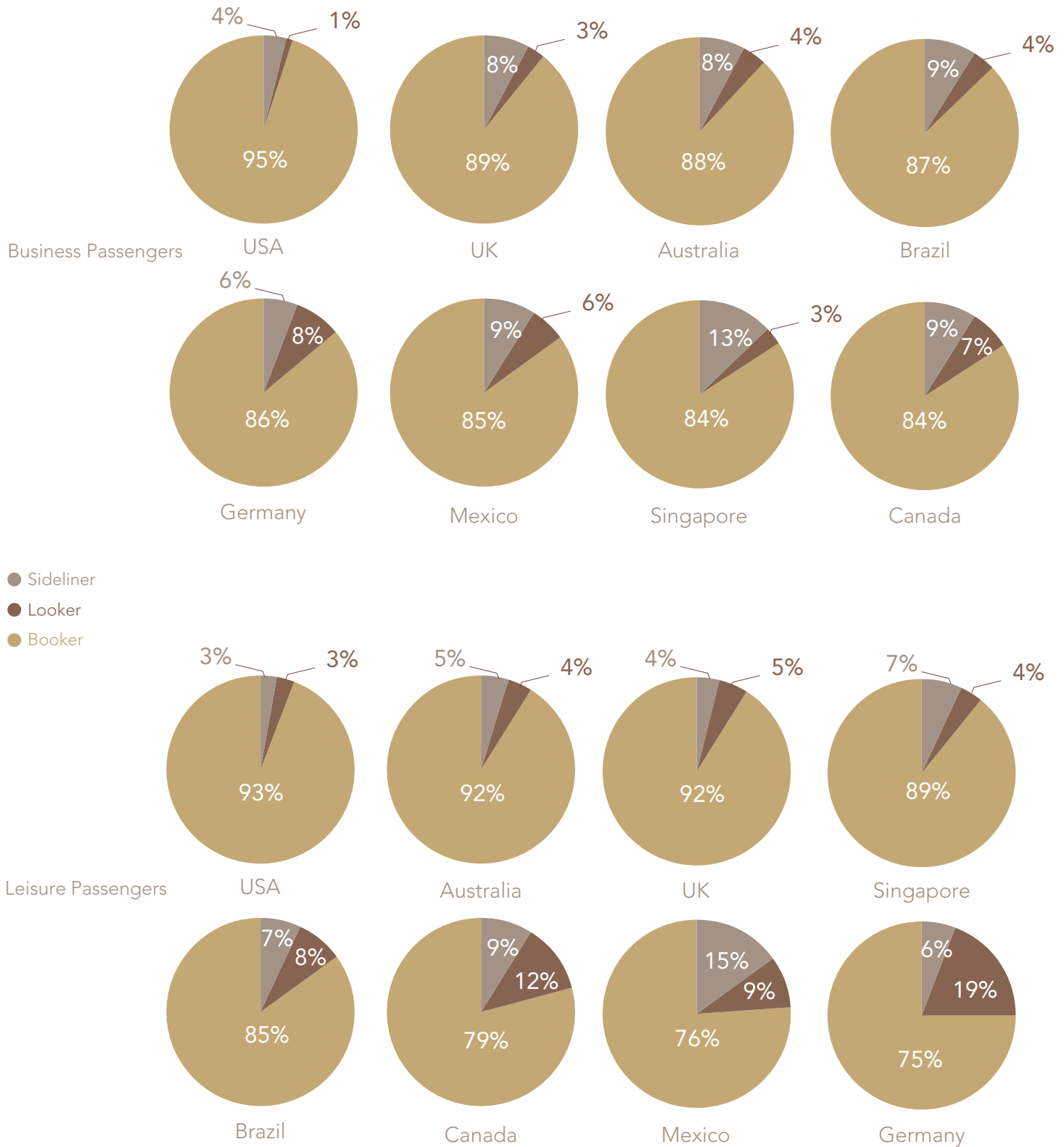
Business Passengers

USA: 95%, 4%, 1%
UK: 89%, 8%, 3%
Australia: 88%, 8%, 4%
Brazil: 87%, 9%, 4%

Germany: 86%, 6%, 8%
Mexico: 85%, 9%, 6%
Singapore: 84%, 13%, 3%
Canada: 84%, 9%, 7%

Legend:
- Sideliner
- Looker
- Booker

Leisure Passengers

USA: 93%, 3%, 3%
Australia: 92%, 5%, 4%
UK: 92%, 4%, 5%
Singapore: 89%, 7%, 4%

Brazil: 85%, 7%, 8%
Canada: 79%, 9%, 12%
Mexico: 76%, 15%, 9%
Germany: 75%, 6%, 19%

(Numbers may not total 100 due to rounding)
Base: Online business and leisure passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 4,988)

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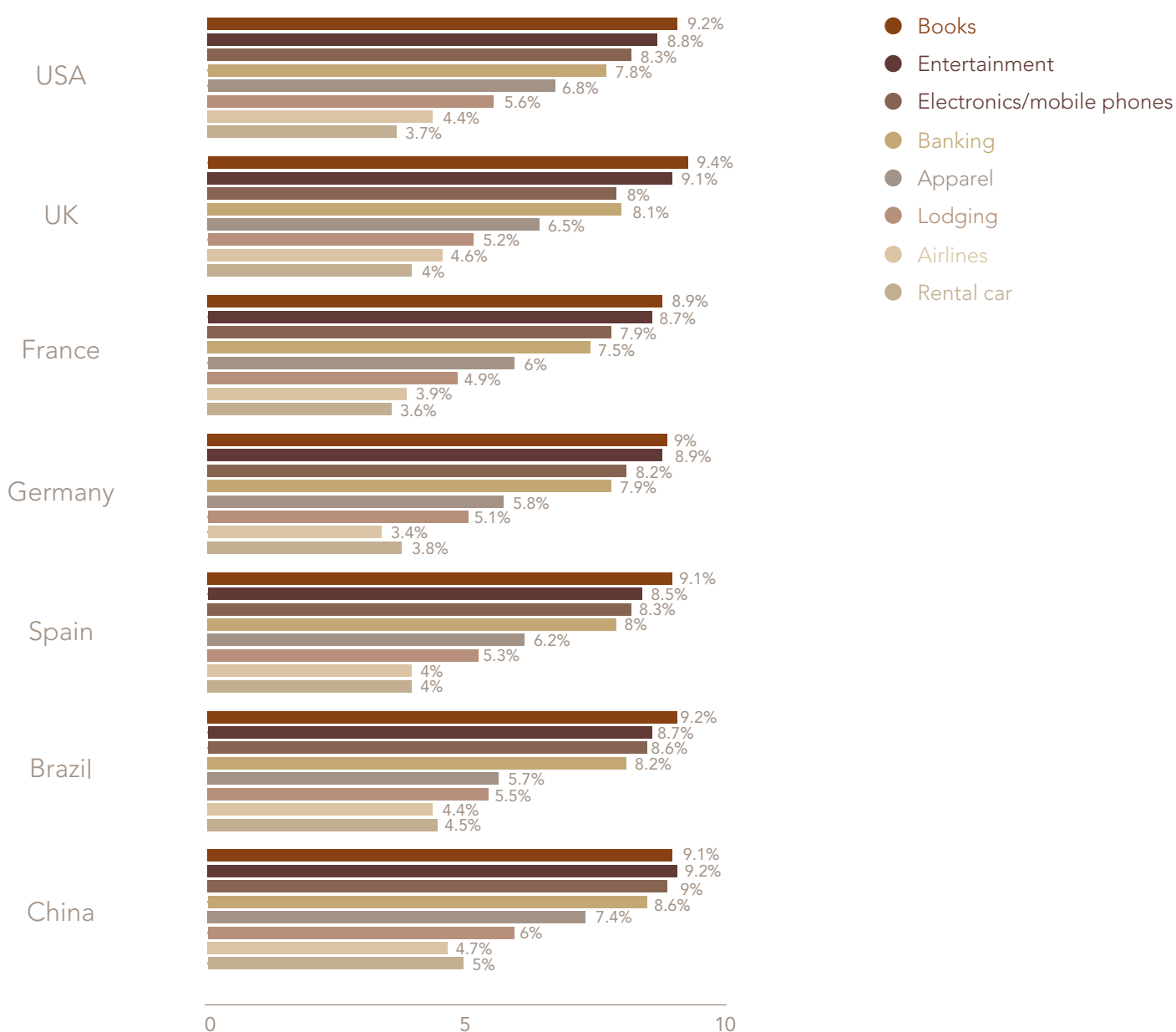Just because passengers book most of their flights online doesn't mean they like the experiences they're having. Atmosphere's own research shows online leisure airline passengers rank shopping for flights online behind almost all other consumer categories, including buying books, electronics/phones, and lodging *(see Figure 6)*.

Passengers' expectations for what they consider to be "good" digital commerce experiences are formed by brands such as Amazon, Carrefour, and Alibaba. As these firms improve their digital experiences, they elevate passengers' expectations for what flight shopping and booking should be.

Figure 6: Airlines Rank Behind Most Categories For Online Purchase Satisfaction
Leisure passenger satisfaction with online buying for various categories

Legend:
- Books
- Entertainment
- Electronics/mobile phones
- Banking
- Apparel
- Lodging
- Airlines
- Rental car

USA: 9.2%, 8.8%, 8.3%, 7.8%, 6.8%, 5.6%, 4.4%, 3.7%
UK: 9.4%, 9.1%, 8%, 8.1%, 6.5%, 5.2%, 4.6%, 4%
France: 8.9%, 8.7%, 7.9%, 7.5%, 6%, 4.9%, 3.9%, 3.6%
Germany: 9%, 8.9%, 8.2%, 7.9%, 5.8%, 5.1%, 3.4%, 3.8%
Spain: 9.1%, 8.5%, 8.3%, 8%, 6.2%, 5.3%, 4%, 4%
Brazil: 9.2%, 8.7%, 8.6%, 8.2%, 5.7%, 5.5%, 4.4%, 4.5%
China: 9.1%, 9.2%, 9%, 8.6%, 7.4%, 6%, 4.7%, 5%

Base: Online leisure airline passengers
Source: Atmosphere Research Group's Travel Online Studies, Q1 2015 (US), Q3 2014 (France, Germany, Spain, UK), Q3 2014 (Brazil, China)
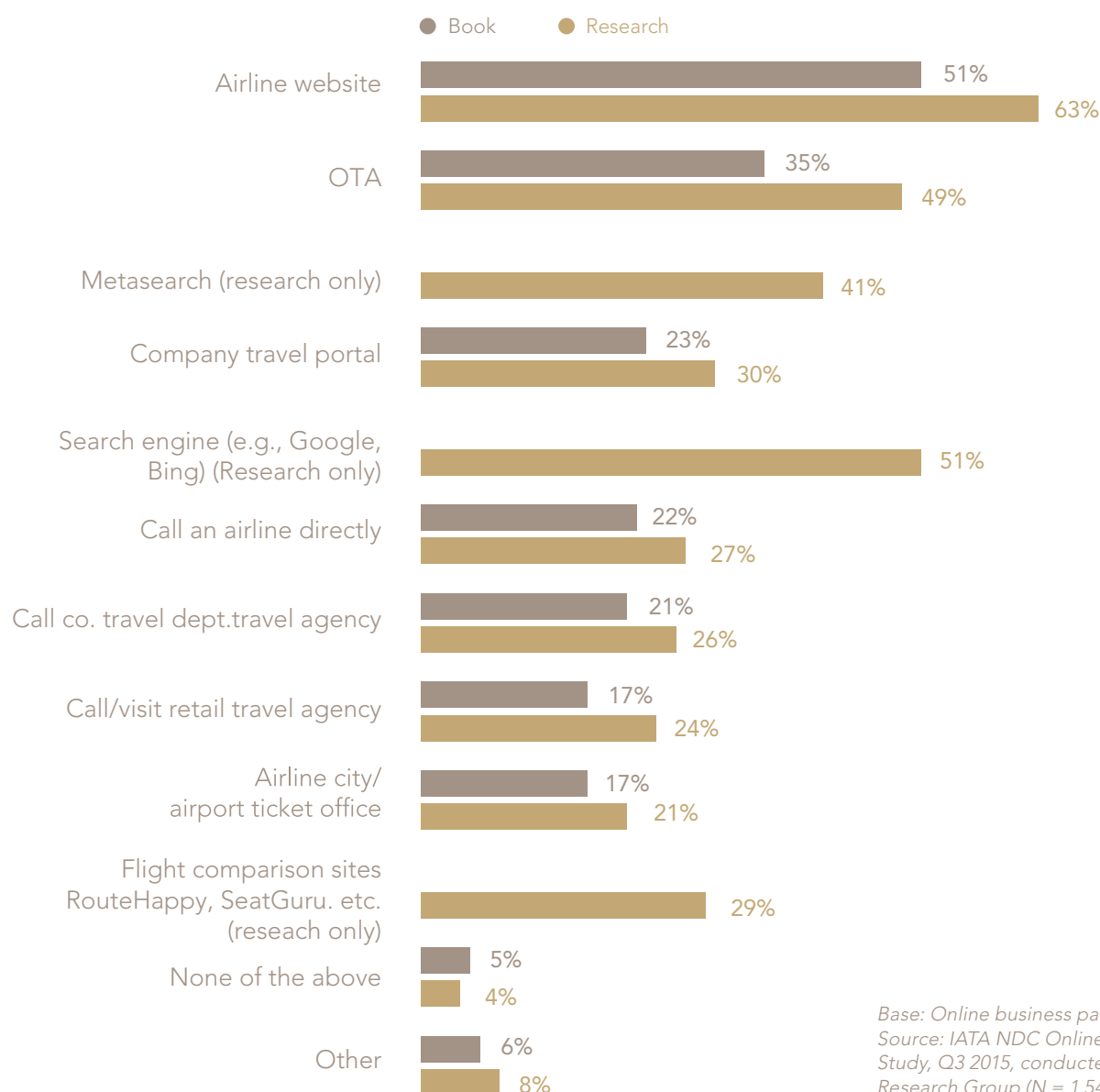
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• Are habitual - though not monogamous, and certainly not happy.

Fifty-two percent of leisure passengers, and 57% of business passengers, say they use the same companies to book their flights. Even so, both types of passengers use a variety of channels, including airline direct and third-parties, to research and book their flights *(see Figure 7-1 and Figure 7-2)*. And even though some passengers return to a finite group of brands to shop for their flights, 39% of leisure passengers and 45% of business passengers believe they use too many websites to find and book their trips.

Passengers' "hopscotching" across so many channels to search and book flights highlights several challenges for airlines and their partners. First, the use of so many channels indicates passengers may not be able to find all the flight information they need or want through a single outlet. Second, passengers may not trust the information they find in one place and feel they need to verify it elsewhere. Third, the information provided may not be clear or comprehensive enough to answer the passenger's questions. Finally, the hopscotching indicates a need for rich airline content usable across a variety of channels and platforms, including search engines, Metasearch, and GDS displays.

Figure 7-1:   Business Bookers Are Multi-Channel Buyers; NDC Must Be Present Across Both Online And Offline Channels

Channels used by business travel Bookers to research/book their flights

● Book   ● Research

Channel	Book	Research
Airline website	51%	63%
OTA	35%	49%
Metasearch (research only)		41%
Company travel portal	23%	30%
Search engine (e.g., Google, Bing) (Research only)		51%
Call an airline directly	22%	27%
Call co. travel dept.travel agency	21%	26%
Call/visit retail travel agency	17%	24%
Airline city/airport ticket office	17%	21%
Flight comparison sites RouteHappy, SeatGuru. etc. (reseach only)		29%
None of the above	5%	4%
Other	6%	8%

Base: Online business passenger Bookers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 1,544)

Figure 7-2: **Leisure Bookers Are Most Likely To Use Airline Websites To Plan, Book Flights**
Channels used by leisure travel Bookers to research/book their flights

● Book ● Research

Channel	Book	Research
Airline website	56%	64%
OTA	38%	53%
Search engine (e.g., Google, Bing) (Research only)		51%
Metasearch (research only)		40%
Call/visit retail travel agency	15%	20%
Flight comparison sites (e.g., SeatGuru, Routehappy) (research only)		20%
Call an airline directly	14%	19%
Airline city/airport ticket office	10%	15%
None of the above	6%	3%
Other	5%	7%
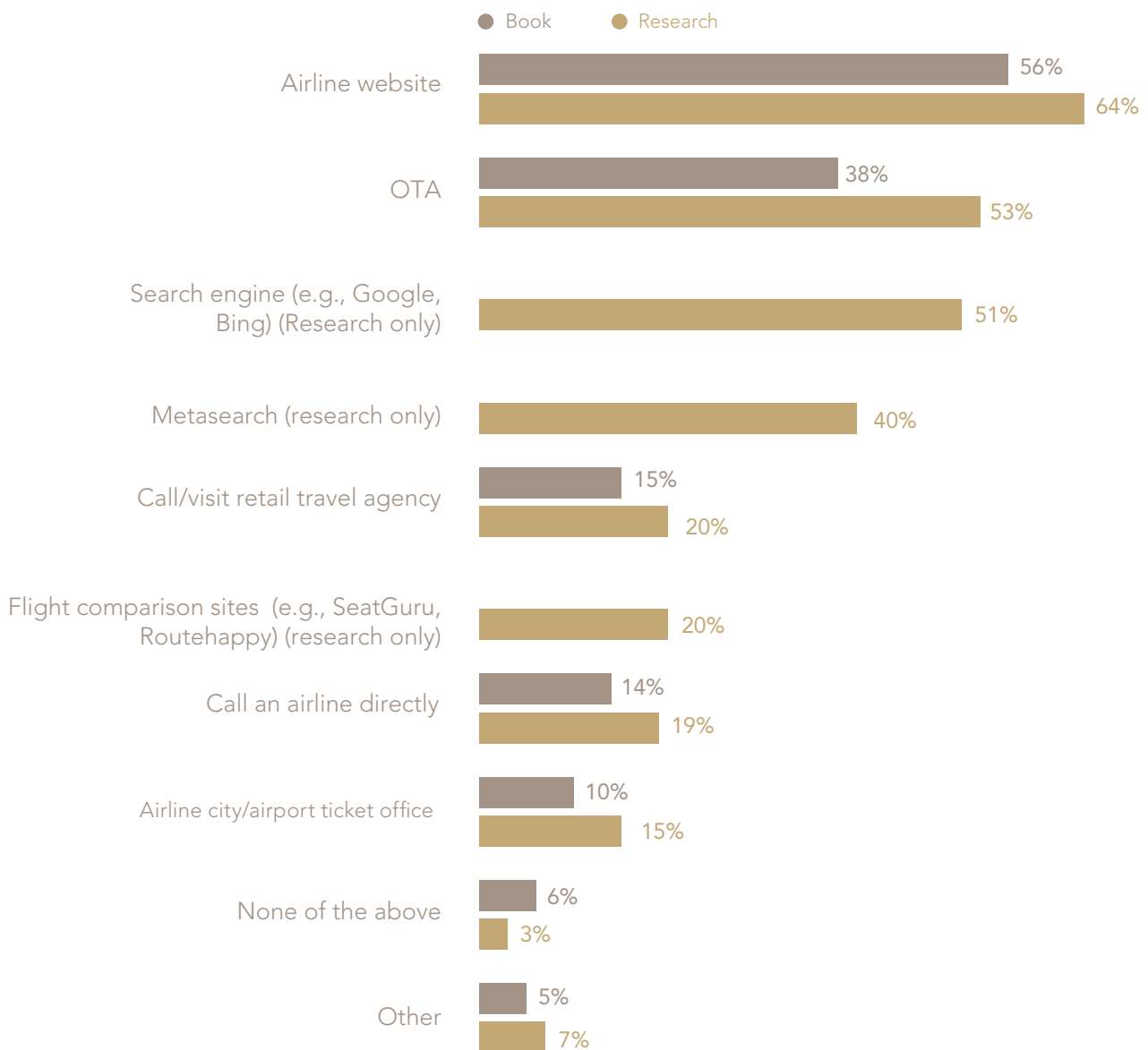
Base: Online leisure passenger Bookers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 4,130)

● **Want to know about relevant products and offers.**

Few things can disappoint a customer more than learning about a product too late in the purchase process. This is certainly true in airline flight shopping. Both business and leisure passengers want to know about various products available for their journeys, although the two groups don't always share the same level of interest *(see Figure 8)*. For example, it is important for business passengers to know which airline products are included in their travel policies *(see Figure 9)*. Business travelers want to know the airline products that are included in their employer's contracts with their preferred airlines as well as any other products that are eligible for expense reimbursement.

Figure 8:   Using NDC To Respond To Passengers' Different Product Interests Can Help Travel
Agencies Become Better Retailers

"Thinking about your flights, how helpful is it for airlines to offer you the following
information, products, or amenities as part of your journey?" (Answer 4 or 5 on 5-point scale)

● Business ● Leisure

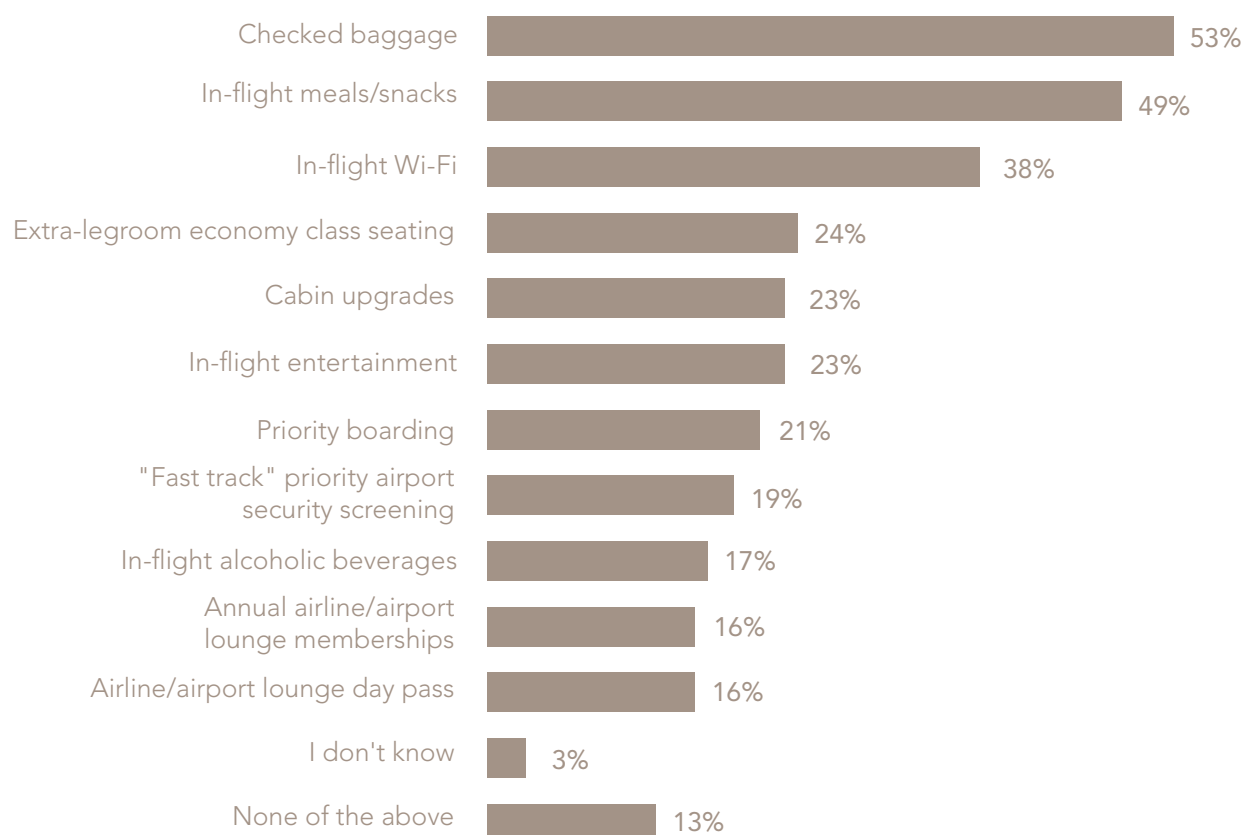| Category	Business	Leisure
Being able to select myseats ahead of check-in	75%	75%
Knowing if I can access Wi-Fi on a flight	64%	52%
Ground transportation	64%	60%
Paying checked bag fees before going to airport	63%	64%
Airfare with or without frequent flier miles	62%	58%
Public transport to/from airport	61%	61%
The ability to upgrade to a premium class of service, such as business class	58%	50%
Having access to an airport lounge, where available	58%	50%
Hotel accommodations	57%	54%
Vouchers you can redeem for in-flight meals, snacks, etc.	56%	51%
Knowing whether a flight has in-seat power outlets	54%	49%
Knowing whether a flight offers in-flight entertainment	53%	53%
Rental cars	53%	45%
Being able to pay for "fast track"/priority airport security screening	53%	50%
Tickets to destination activities, such as theme parks, museums, etc.	41%	42%

Figure 9:   NDC Can Help Business Passengers Know What Products Are Included In A Fare

"For which, if any, of the following optional airline products/services does your company/client reimburse you when you travel on company business?"

Checked baggage	53%
In-flight meals/snacks	49%
In-flight Wi-Fi	38%
Extra-legroom economy class seating	24%
Cabin upgrades	23%
In-flight entertainment	23%
Priority boarding	21%
"Fast track" priority airport security screening	19%
In-flight alcoholic beverages	17%
Annual airline/airport lounge memberships	16%
Airline/airport lounge day pass	16%
I don't know	3%
None of the above	13%

Base: Online business passengers
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 1,749)

Third-parties will need to do more than merely recognize a passenger's interests and inform that traveler when an airline product is, or is not, available on a flight. To become truly good retailers, third-parties will need to understand when the value of that product information is greatest. A story arc spans each traveler's journey, much like how television series have "story arcs" that span each season *(see Figure 10)*. Under that story arc the various segments of a trip, such as planning, booking, and check-in. Informing travelers of airline product availability at the right time, and in an engaging manner, is critical to

inspiring them to consider purchase. Passengers have conflicting emotions. They want to save, and yet they're also open to products and offers that can help them enjoy a better trip *(see Figure 11)*. This complicates the retailing, merchandising, and inspiration processes for third-parties and airlines alike. For third-parties, the new world of airline retailing means developing messaging digital retail experiences that are compelling, engaging, and intuitively designed. This also reinforces the importance and value of rich customer insights, which we discuss in the following section.

Figure 10: A "Story Arc" Spans Each Trip

| Dream | Plan | Book | Flight check-in | Outbound flight | Destination | Flight check-in | Return flight |

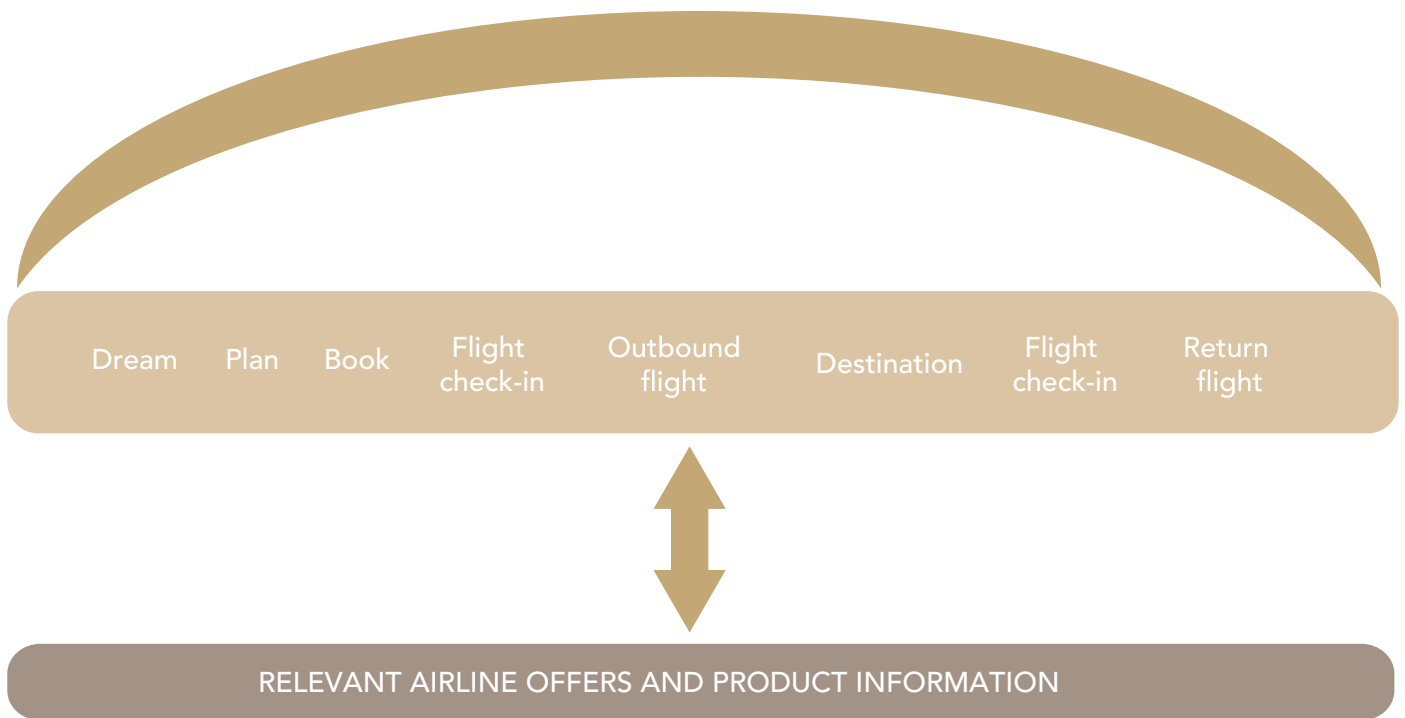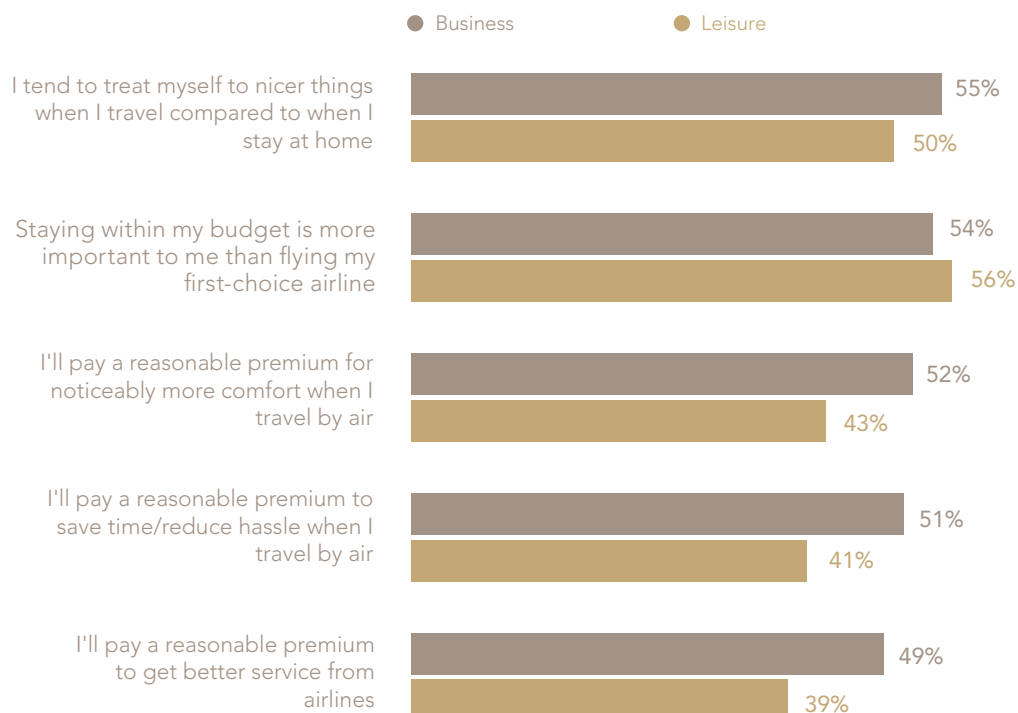RELEVANT AIRLINE OFFERS AND PRODUCT INFORMATION

Figure 11: NDC Can Help Airlines And Travel Agencies Navigate Passengers' Conflicting Emotions About Saving Versus Spending For Flights

"How do you feel about airline travel?" (Answered 4 or 5 on 5-point scale)

● Business   ● Leisure

I tend to treat myself to nicer things when I travel compared to when I stay at home
- Business: 55%
- Leisure: 50%

Staying within my budget is more important to me than flying my first-choice airline
- Business: 54%
- Leisure: 56%

I'll pay a reasonable premium for noticeably more comfort when I travel by air
- Business: 52%
- Leisure: 43%

I'll pay a reasonable premium to save time/reduce hassle when I travel by air
- Business: 51%
- Leisure: 41%

I'll pay a reasonable premium to get better service from airlines
- Business: 49%
- Leisure: 39%

INDIVIDUALISM: RECOGNIZING PASSENGERS AS PEOPLE, NOT PNRs

Amid the discussions taking place about online consumer privacy, our survey contains reassuring information for those involved in airline retailing.

Half of all leisure passengers, and 56% of business passengers, are comfortable sharing their personal details with travel companies, provided the brands keep their data safe and tell them how they will use their information. This creates the foundation for "individualism" – going beyond personalization to recognize the customer in a much more comprehensive manner. Individualism is important in airline retailing because:

• Different people like different things.

Knowing your customer is a key principle in any retail business, including airline retailing. In our survey, Australian business passengers are the least interested in "fast track" airport security offers, while Mexican business passengers are most interested. Brazilian leisure passengers
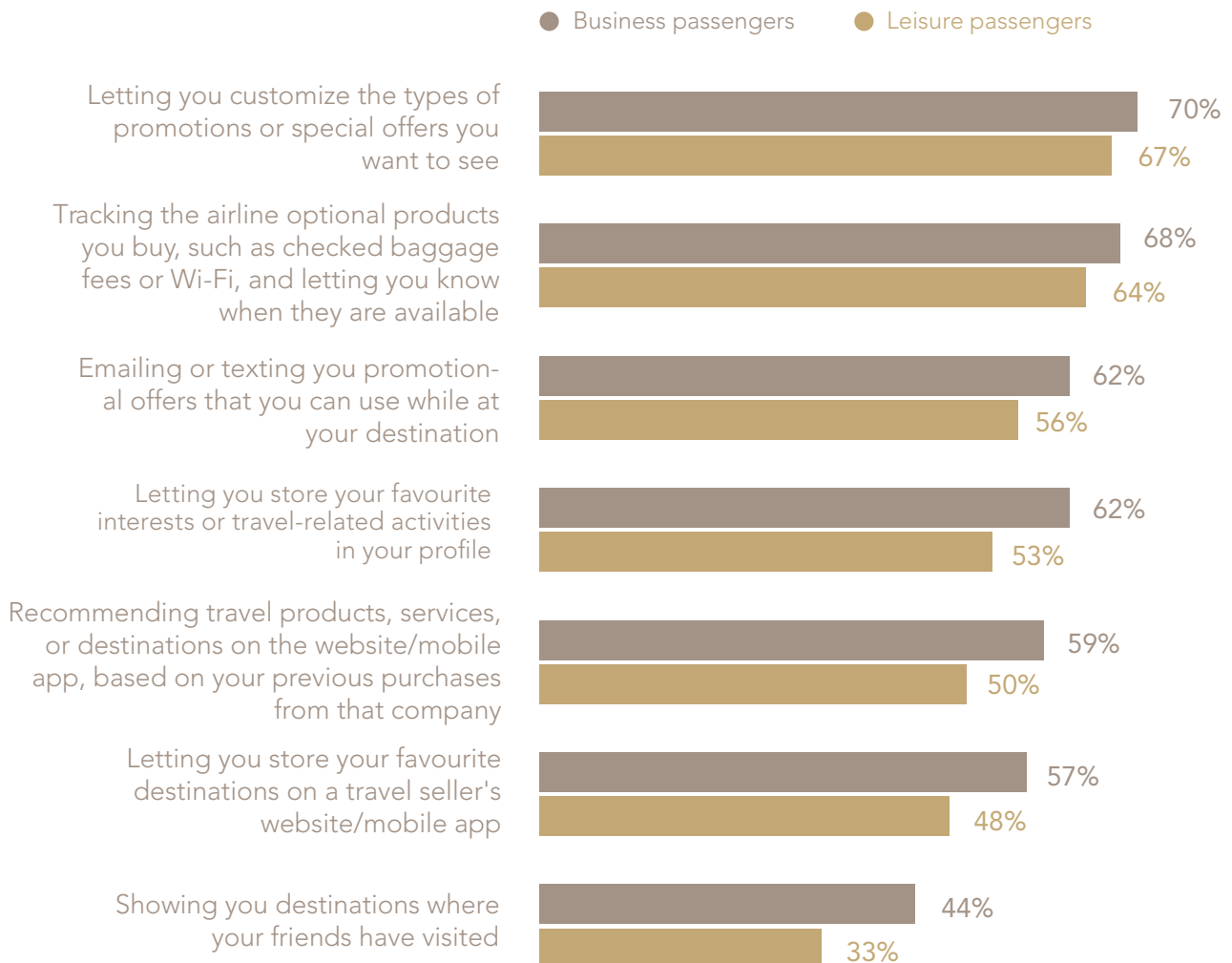
between the ages of 18 and 24 are 23% more likely than their UK counterparts to want to know if a flight has in-seat power. "One size fits all" approaches to presenting flight information are counterproductive. They don't help third-parties distinguish their airline partners, don't create meaningful brand differentiation from competitors, and contribute to high look-to-book ratios.

• Passengers want to be recognized as individuals.

The late Stanley Marcus, founder of Dallas, Texas-based Neiman Marcus, once said "Consumers are statistics. Customers are people." No one wants to be treated as a statistic. Passengers have benefitted from other non-travel online retailers using their purchase histories to suggest relevant offers and products. They believe allowing third-parties to do this will improve the airline-related offers they receive *(see Figure 12)*. Recognizing what passengers want, and offering it to them, contributes to third-parties' abilities to recognize and treat passengers as individuals.

Figure 12:   Passengers Want Individualized Attention And Will Share Personal Information To Get It

"There are many ways in which an airline or travel agency can use its website and mobile app to "personalize" things as you research or take your journey. How helpful do you believe the following would be for you as you plan or take your flight?" (Answered 4 or 5 on 5-point scale)

● Business passengers   ● Leisure passengers

Letting you customize the types of promotions or special offers you want to see	70% / 67%
Tracking the airline optional products you buy, such as checked baggage fees or Wi-Fi, and letting you know when they are available	68% / 64%
Emailing or texting you promotional offers that you can use while at your destination	62% / 56%
Letting you store your favourite interests or travel-related activities in your profile	62% / 53%
Recommending travel products, services, or destinations on the website/mobile app, based on your previous purchases from that company	59% / 50%
Letting you store your favourite destinations on a travel seller's website/mobile app	57% / 48%
Showing you destinations where your friends have visited	44% / 33%

● **Personalization may help cut flight shopping and booking time.**

Remember that data point about passengers saying they spend too much time shopping for and booking flights? Research conducted by the IBM Institute for Business Value shows that 55% of leisure travelers spend more than two hours searching for various travel products (e.g., air, lodging, etc.), and more than 10% spend eight or more hours doing this[8].

By harnessing customer data to present curated, relevant airline offers, a third-party can help passengers save time. Helping passengers save time shopping for flights may help a third-party attract and keep more customers.

_____

8 Source: "Hotel 2020: The Personalization Paradox", IBM Institute For Business Value, IBM Global Business Services http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?infotype=PM&subtype=X-B&appname=GBSE_GB_TI_USEN&htmlfid=GBE03411USEN&attachment=GBE03411USEN.PDF

NDC IS THE CATALYST THAT CAN HELP AGENCIES EMPLOY THE "THREE I'S"

We have seen how airline passengers use multiple channels to shop for and book flights — and how these channels don't meet passengers' expectations. We have seen how passengers want to have access to immediate, real-time offers.
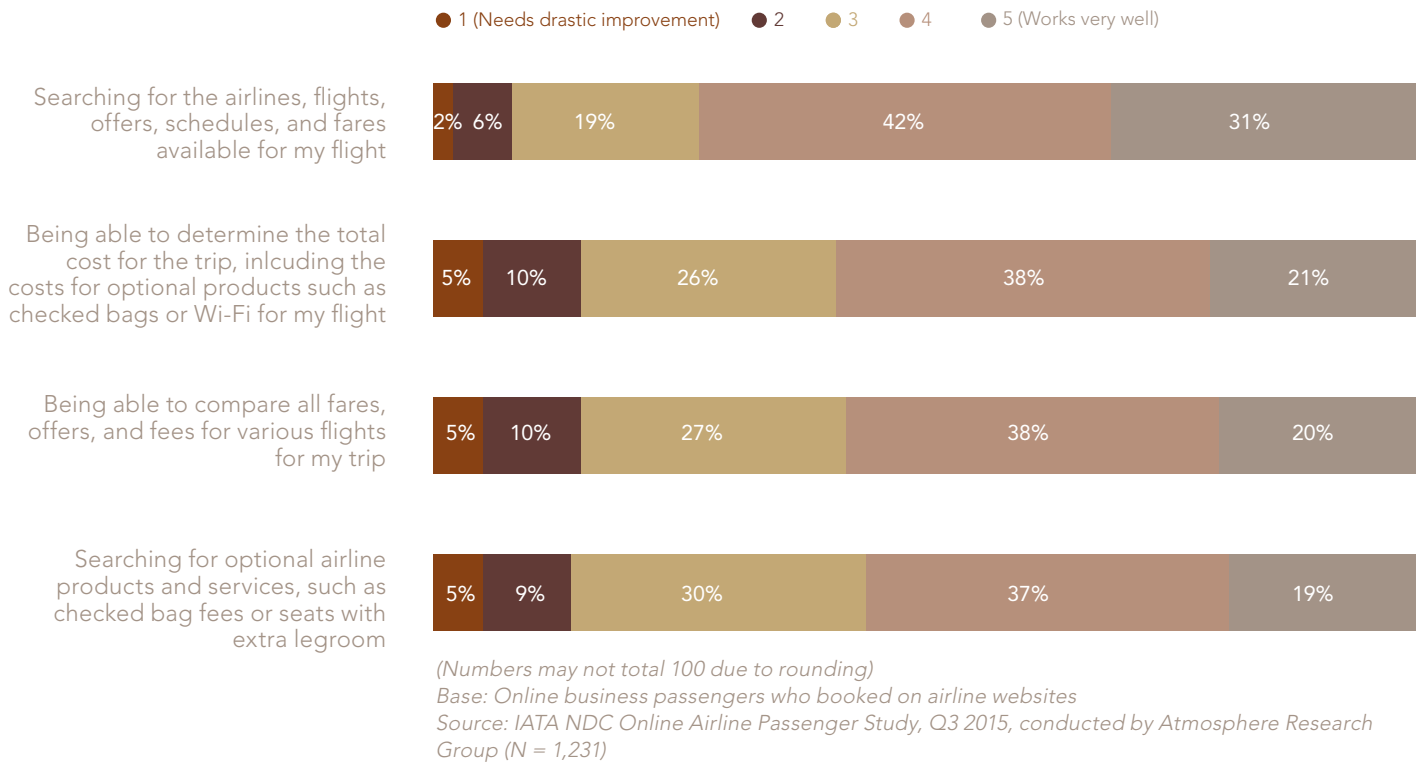
We have learned that passengers welcome being inspired with airline product offers. It's also clear that passengers want to be treated as individuals, rather than PNRs, and how improved personalization capabilities can help airlines and travel agencies accomplish this.

In spite of the airline industry's collective success selling tickets online through both direct and indirect digital channels, the ancillary product shopping experience needs improvement. We asked passengers about their satisfaction shopping and buying airline ancillary products through airline websites, OTAs and, for business passengers, corporate booking portals. Across all channels, passengers consistently scored ancillary product shopping the lowest of four tasks *(see Figure 13-1 through Figure 13-3 (business passengers) and Figure 14-1 and Figure 14-2 (leisure passengers)).*

Figure 13-1:   Business Passengers Consistently Rank Ancillary Shopping Lowest (1 of 3)

"We'd like you to think about your experiences using **airline websites** to research and book your business flights, and tell us how strongly you agree or disagree with the following statements."

● 1 (Needs drastic improvement)   ● 2   ● 3   ● 4   ● 5 (Works very well)

	1	2	3	4	5
Searching for the airlines, flights, offers, schedules, and fares available for my flight	2%	6%	19%	42%	31%
Being able to determine the total cost for the trip, inlcuding the costs for optional products such as checked bags or Wi-Fi for my flight	5%	10%	26%	38%	21%
Being able to compare all fares, offers, and fees for various flights for my trip	5%	10%	27%	38%	20%
Searching for optional airline products and services, such as checked bag fees or seats with extra legroom	5%	9%	30%	37%	19%

(Numbers may not total 100 due to rounding)
Base: Online business passengers who booked on airline websites
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 1,231)

Figure 13-2:   Business Passengers Consistently Rank Ancillary Shopping Lowest (2 of 3)

"We'd like you to think about your experiences using **company's online travel portal/website/ mobile booking app** to research and book your business flights, and tell us how strongly you agree or disagree with the following statements."
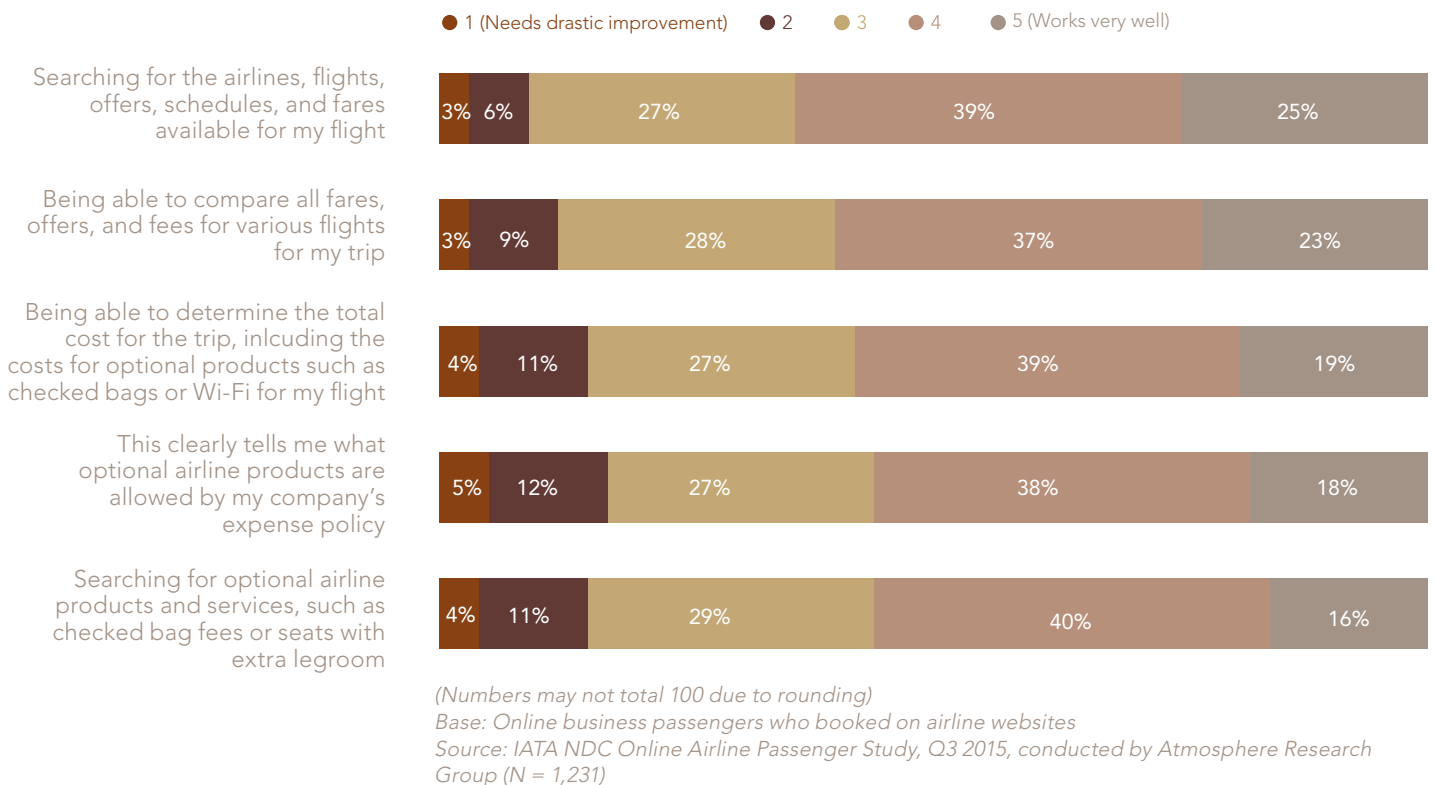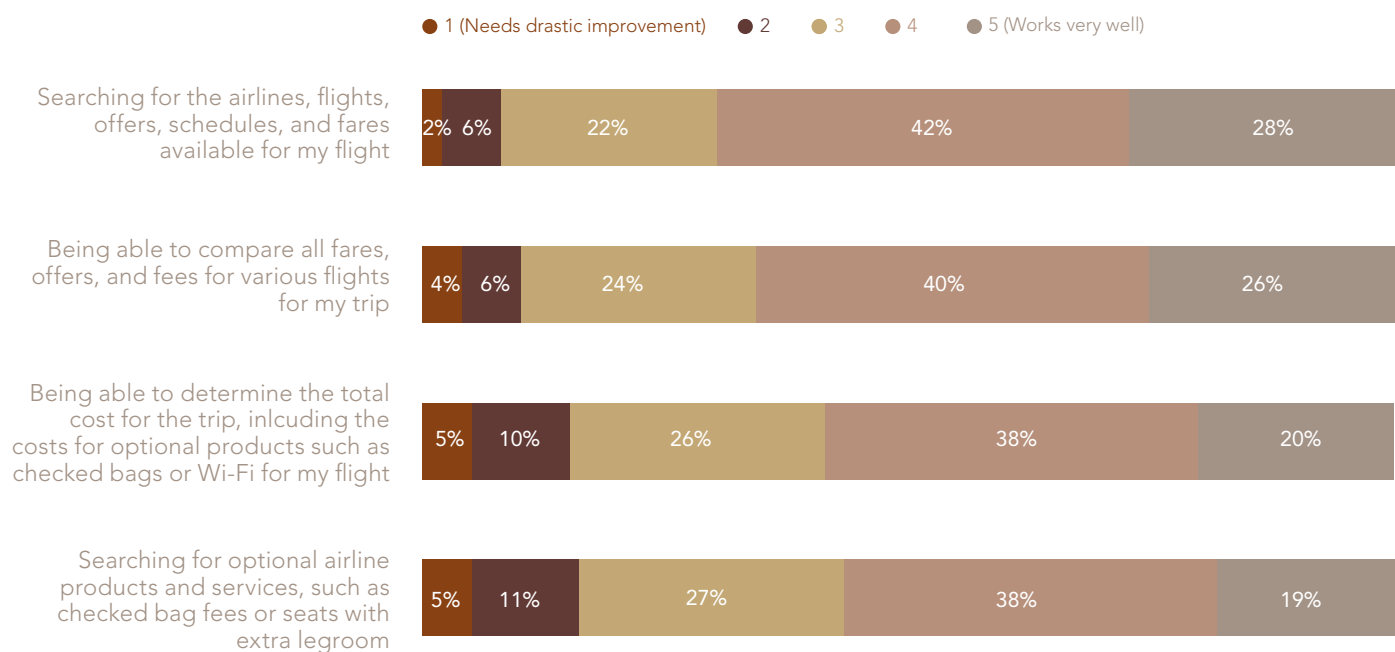
● 1 (Needs drastic improvement)   ● 2   ● 3   ● 4   ● 5 (Works very well)

	1	2	3	4	5
Searching for the airlines, flights, offers, schedules, and fares available for my flight	3%	6%	27%	39%	25%
Being able to compare all fares, offers, and fees for various flights for my trip	3%	9%	28%	37%	23%
Being able to determine the total cost for the trip, inlcuding the costs for optional products such as checked bags or Wi-Fi for my flight	4%	11%	27%	39%	19%
This clearly tells me what optional airline products are allowed by my company's expense policy	5%	12%	27%	38%	18%
Searching for optional airline products and services, such as checked bag fees or seats with extra legroom	4%	11%	29%	40%	16%

(Numbers may not total 100 due to rounding)
Base: Online business passengers who booked on airline websites
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 1,231)

Figure 13-3: Business Passengers Consistently Rank Ancillary Shopping Lowest (3 of 3)

"We'd like you to think about your experiences using **online travel agency (OTA) websites** to research and book your business flights, and tell us how strongly you agree or disagree with the following statements."
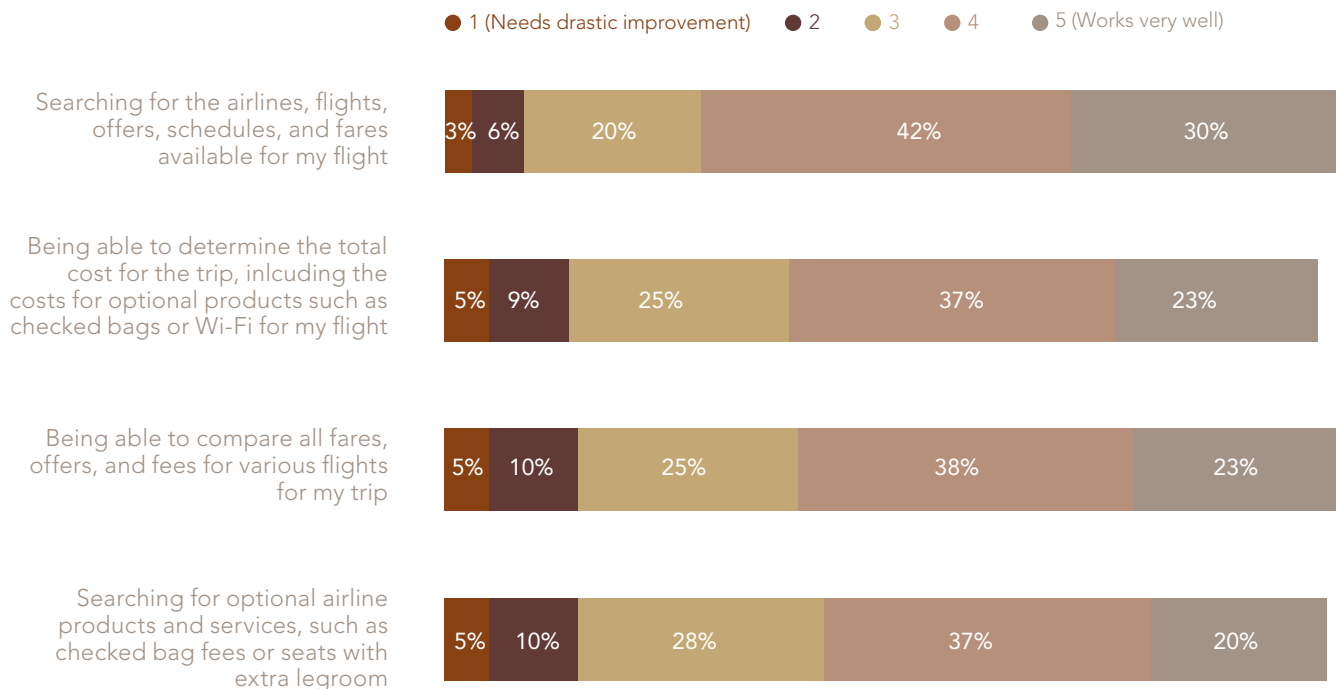
● 1 (Needs drastic improvement) ● 2 ● 3 ● 4 ● 5 (Works very well)

Statement	1	2	3	4	5
Searching for the airlines, flights, offers, schedules, and fares available for my flight	2%	6%	22%	42%	28%
Being able to compare all fares, offers, and fees for various flights for my trip	4%	6%	24%	40%	26%
Being able to determine the total cost for the trip, inlcuding the costs for optional products such as checked bags or Wi-Fi for my flight	5%	10%	26%	38%	20%
Searching for optional airline products and services, such as checked bag fees or seats with extra legroom	5%	11%	27%	38%	19%

(Numbers may not total 100 due to rounding)
Base: Online business passengers who booked on airline travel agency (OTA) websites
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 989)

Figure 14-1: Leisure Passengers Say Ancillary Product Shopping Trails Other Tasks (1 of 2)

"We'd like you to think about your experiences using **airline websites** to research and book your leisure flights, and tell us how strongly you agree or disagree with the following statements."
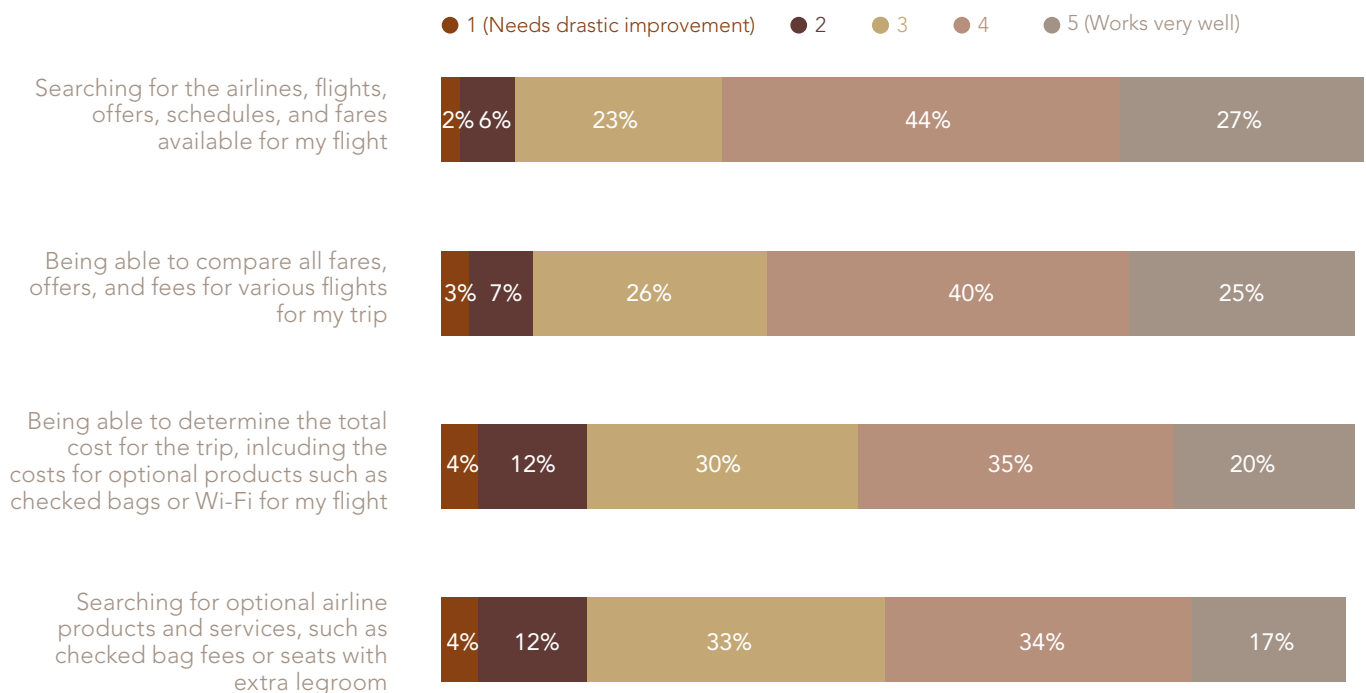
● 1 (Needs drastic improvement)　● 2　● 3　● 4　● 5 (Works very well)

Statement	1	2	3	4	5
Searching for the airlines, flights, offers, schedules, and fares available for my flight	3%	6%	20%	42%	30%
Being able to determine the total cost for the trip, inlcuding the costs for optional products such as checked bags or Wi-Fi for my flight	5%	9%	25%	37%	23%
Being able to compare all fares, offers, and fees for various flights for my trip	5%	10%	25%	38%	23%
Searching for optional airline products and services, such as checked bag fees or seats with extra legroom	5%	10%	28%	37%	20%

(Numbers may not total 100 due to rounding)
Base: Online leisure passengers who booked on airline websites
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 3,119)

Figure 14-2: Leisure Passengers Say Ancillary Product Shopping Trails Other Tasks (2 of 2)

"We'd like you to think about your experiences using **online travel agency (OTA) websites** to research and book your leisure flights, and tell us how strongly you agree or disagree with the following statements."

● 1 (Needs drastic improvement)　● 2　● 3　● 4　● 5 (Works very well)

Statement	1	2	3	4	5
Searching for the airlines, flights, offers, schedules, and fares available for my flight	2%	6%	23%	44%	27%
Being able to compare all fares, offers, and fees for various flights for my trip	3%	7%	26%	40%	25%
Being able to determine the total cost for the trip, inlcuding the costs for optional products such as checked bags or Wi-Fi for my flight	4%	12%	30%	35%	20%
Searching for optional airline products and services, such as checked bag fees or seats with extra legroom	4%	12%	33%	34%	17%

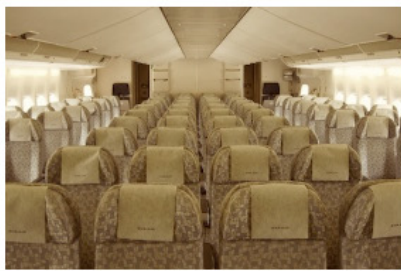*(Numbers may not total 100 due to rounding)*
Base: Online leisure passengers who booked on airline travel agency (OTA) websites
Source: IATA NDC Online Airline Passenger Study, Q3 2015, conducted by Atmosphere Research Group (N = 2,539)

To explore passengers' reactions to NDC-enabled shopping and booking via OTAs, we presented examples from IATA's online OTA demonstration in the survey[9]. Each image included a detailed explanation of the content being shown.

The results were impressive. Both business and leisure passengers responded very favorably to the proposed airline retailing concepts *(see Figure 15).* These responses illustrate the importance and value of a well-crafted user experience. What's included? Proven online retail concepts such as extensive product details (for instance, showing seat width and legroom information), rich content, including photography and video, and clearly highlighted special offers. All of these can help a passenger better understand a product or promotion and its value.

[9] The complete demo can be found at http://ndc.iata.org/ota-v1/walkthroughs/ota-index.html#1

	OUTBOUND	RETURN
	Jet Hera	ATHENA AIR
Price	€736 **Book flight**	€1.056 **Book flight**
Departure	CDG - 13:05 20 Oct 2015	CDG - 13:05 20 Oct 2015
Arrival	JFK - 14:15 20 Oct 2015	JFK - 14:15 20 Oct 2015
Flight	HR-111 operated by Jet Hera	AT-123 operated by Athena Air
Duration	7 hours 10 minutes	7 hours 10 minutes
Cabin class	Economy	Economy
Seat	Economy All seats are equipped with USB power	Economy A spacious seat for your journey - upgrade to Business for a massive 65x22 seat.
Priority boarding	Not Available	Not Available
Airmiles		3789 stars

Figure 15:   Passengers Reacted Very Favorably To The Improved Flight Shopping And Booking Made Possible By NDC

"Thinking about the airline flight researching and booking processes you just saw, please rate your agreement with the following statements below?" (Answered 4 or 5 on 5-point scale)

● Business passengers   ● Leisure passengers

This would make it easier for me to compare flights, their available services, and their prices compared to how I shop for flights today
- 77%
- 77%

This helps me better understand the true cost for my flight, compared to the way I plan and book airline flights today
- 77%
- 76%

This represents a significant improvement over the way most travel agency websites present airline flights now
- 76%
- 75%

It is much more convenient to have all my loyalty program benefits applied to the travel shopping process automatically
- 75%
- 73%

The use of photos and video help me understand the products, services, and amenities an airline may offer, such as its in-flight entertainment, lounges, etc.
- 74%
- 75%

I would be more likely to consider buyingoptional airline servcies if they were presented like this
- 71%
- 66%

I would be more likely to check with a travel agency that presents options this way online before going to other travel websites, including airline websites
- 69%
- 65%

Airlines invest billions of dollars on their branding, advertising, airport facilities, aircraft cabins, IFE content, uniforms, and more. In spite of all these efforts, 38% of business passengers and 31% of leisure passengers view airlines as commodities. A better flight shopping experience will allow participating carriers to better communicate and leverage their brands and products, which can help counter consumers "airlines are all alike" mindsets.

What's more, passengers like better merchandised, more comprehensive flight shopping. They believe better airline retailing will help them save time, give them a better understanding of the products available on a flight, and know a flight's total cost. The majority of passengers also said they would be more likely to use a third-party that offers the better airline retail displays compared to those that do not. For third-parties, this may provide a way to better distinguish themselves, increase their customer base, and sell more airline product. For passengers, a better airline retailing experience can result in more immediate access to offers, more efficient, inspiring shopping experiences, and receiving individualized airline offers.

CONCLUSIONS

In Atmosphere's opinion, it is unequivocally clear that passengers like how NDC-enabled processes can help improve flight shopping and booking.

Through the NDC standard, airlines and their partners can deliver world-class digital retailing in a more cost-effective manner to their passengers. NDC-enabled flight shopping will allow airlines and third-parties to deliver the value their customers want, at a lower cost than if no standard were to exist. NDC means a faster time to market for time-sensitive airline offers.

NDC will also allow airlines and their partners to leverage the "three I's" – **IMMEDIACY, INSPIRATION, AND INDIVIDUALISM** – to better deliver value to travelers. How?

IMMEDIACY: NDC will enable third-parties and their airline partners to better capitalize on mobile as a marketing, sales, and service channel, and allow third-parties to better benefit from the travel 'story arc." Mobile technologies such as beacons, geo-fencing, and mobile wallets support real-time messaging and sales. NDC will enable mobile-savvy third-parties to present airline offers and ancillary products to their customers. And, because so many passengers already engage in mCommerce, NDC can help third-parties turn their mobile apps into the equivalent of the supermarket check-out displays: A prime source of discretionary, incremental product purchases.

INSPIRATION: Flight shopping and booking channel "hopscotching" results, in part, from inadequate, lackluster user experiences. The lack of helpful airline content – e.g., legroom, Wi-Fi availability – encourages travelers to visit multiple sites to cobble together the information they need. NDC can help third-parties inspire travelers through its ability to support product photograph, and video and detailed product descriptions. This is gives greater impact than simply making a flight display "pretty." Effective merchandising can help increase sales. For example, a major "brick and mortar" retailer told Atmosphere that allowing consumers to expand a product picture led to a seven percent increase in sales. Consumers who viewed a cruise line's video content on travel agency websites were more than twice as likely

to book compared to those who did not view the video. By offering both product bundles and selling individual items such as hardware or games, Nintendo increased its video game sales by more than 1,000,000 units[10]. NDC can help third-parties deliver the inspiration passengers enjoy, enable third-parties to offer world-class retailing capabilities, and help third-parties sell more airline products to more customers.

INDIVIDUALISM: NDC-enabled processes can help third-parties respond to passengers' desires for personalization and individualism, and may also help them become stronger competitors and businesses. Passengers perceive airline digital channels as better than third-parties in part because they feel airline sites do a better job recognizing their frequent flier status and offering ancillary products. NDC can help "level the playing field," by letting passengers control how a third-party shares their data with an airline. This will make it more efficient for third-parties to obtain individualized airline content and present that

to the passenger in a manner that seems "tailor made" for each traveler.

Airlines and their partners want consumers to enjoy their journeys. Much of that satisfaction hinges on factors such as punctuality, convenience, and professional service. But before that passenger shows up at the airport, they have to go from being a "shopper" to a "passenger." More efficient, more engaging, more useful airline retailing is critical to this process. NDC has the potential to please airlines, their partners, and passengers.

And that should make everybody happy.

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[10] Source: "Product Bundling is a Smart Strategy – But There's a Catch" Forbes, January 16, 2013 http://www.forbes.com/sites/hbsworkingknowledge/2013/01/18/product-bundling-is-a-smart-strategy-but-theres-a-catch/

ABOUT THE AUTHOR

Henry Harteveldt is a world-respected travel industry analyst.

Henry has been an analyst for more than 15 years, focusing on marketing, distribution, and digital commerce topics for all sectors of the global travel industry, primarily airlines, lodging, cruise, and travel intermediaries.

Prior to starting Atmosphere Research in September 2011, Henry led Forrester Research's global travel industry research. Before Forrester, Henry held marketing, planning, and distribution management roles at companies such as TWA, Continental Airlines. The Trump Organization, Fairmont Hotels Management Company, and GetThere.

A recognized media resource, Henry was named to Skift's May 2014 list of 30 top industry influencers.

Henry shares his industry perspectives on Twitter (@hharteveldt) and LinkedIn.