OAG®

THE AIRPORT DELIGHT REPORT: HUMANS VS. MACHINES

SIMPLICITY AND PRACTICALITY WIN IN THE RACE TO GROW REVENUE, STREAMLINE OPERATIONS AND DELIGHT TRAVELERS

TECH MARKET INSIGHTS: AN OVERVIEW

The travel experience remains far from perfect – especially at the airport, where congestion, delays, operational inefficiencies, and a general feeling of stress and chaos can arise at any time.

OAG recently surveyed more than 2,000 travelers through its flight tracking app, FlightView, to identify the biggest opportunities for airports, airlines and technology providers to delight passengers, streamline operations and grow revenue. The most surprising finding: while the travel ecosystem continues to test high-tech investments – including robotics, biometrics, advanced security measures and more – it may be overlooking significantly easier and more affordable opportunities to delight travelers, boost efficiency and grow sales.

These OAG findings provide fresh insight and recommendations for airport, technology and travel leaders on:

- Balancing tech automation and human customer service at the airport
- Untapped opportunities for boosting gate-side revenue and customer experience
- Easy and simple wins to streamline security and reduce airport congestion
- Where to implement on-demand services at the airport
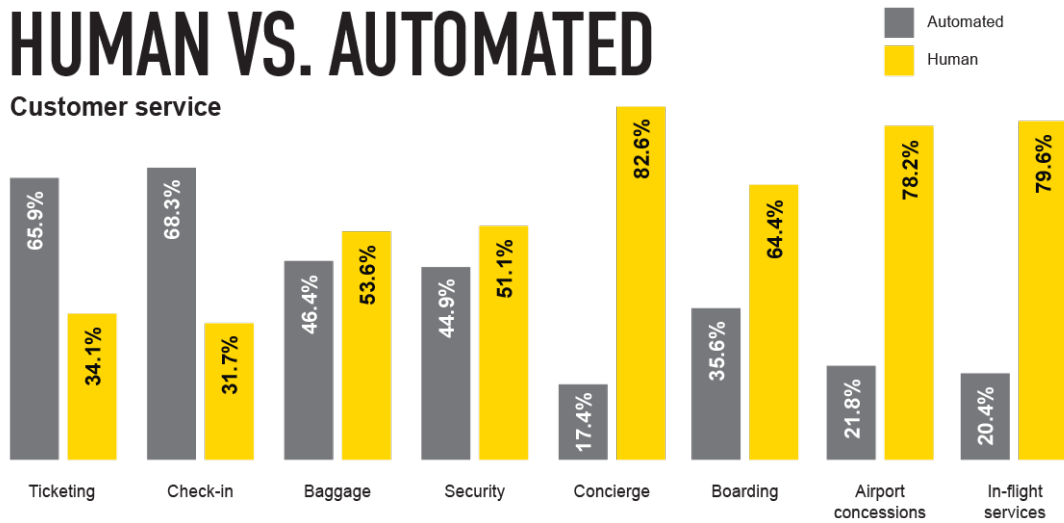- New opportunities for automation and self-service

THE MACHINES ARE COMING: AUTOMATE OR DISRUPT

Travelers want to get to their destination as fast as possible – and airports, airlines and tech providers are investing heavily in automation to make that happen. But despite the investments, there's still a lot of waiting around: 50% of travelers report spending at least 45 minutes waiting in line while at the airport, with 21% saying they spend at least an hour in line, on average. While a completely queue-less airport experience may be a pipedream, shorter lines and less congestion benefits everyone.

So, what's the answer? Many airports and airlines are turning to automation. But according to the travelers surveyed by OAG, automation is not a cure-all, at least not yet.

HUMAN VS. AUTOMATED

Customer service

Legend: Automated (grey), Human (yellow)

Category	Automated	Human
Ticketing	65.9%	34.1%
Check-in	68.3%	31.7%
Baggage	46.4%	53.6%
Security	44.9%	51.1%
Concierge	17.4%	82.6%
Boarding	35.6%	64.4%
Airport concessions	21.8%	78.2%
In-flight services	20.4%	79.6%

Today, travelers still prefer human customer service to technology automation for almost every travel function, including baggage (54% human customer service preference to 46% automation preference), security (55% to 45%), boarding (64% to 36%), concierge (83% to 17%) and in-flight services (80% to 20%). The only area where most travelers prefer automation to human customer service is ticketing and check-in – both of which are already commonplace today.

While these numbers are somewhat surprising, the shift to automation continues across airports. Digging deeper into the numbers, millennials prefer automation more than the general population in every area except for security. Specifically, millennials are 30% more likely to prefer automated airport concessions and retail and in-flight services compared to travelers 50 years and older. Given that preference levels for automation in several key areas, including security and baggage, were within 10 percentage points of human customer service, OAG expects positive sentiment toward automation to climb over the next few years – and ultimately become the clear preference for most travelers.

Beyond automation, another opportunity to improve airport efficiency and reduce queuing is real-time deployment (and redeployment) of operational resources. Nearly 60% of travelers surveyed by OAG would let airports, airlines and other travel providers track their location through a mobile or wearable device if they used that data to redeploy staff to busy areas of the airport to cut down on wait times and queues.

EXPEDITING AIRPORT SECURITY: SIMPLICITY IS KING

Along with the impact on customer experience, every minute a passenger spends waiting in line directly impacts airport revenue by limiting the amount of time available to visit gate-side shops and restaurants. Not surprisingly, when asked which line travelers spend the most time waiting in, 59% of travelers said security, followed by boarding lines (20%) and check-in and baggage (16%).

While the travelers surveyed by OAG remain eager for new technologies that improve the security process, few are ready for a fully-automated experience. Business travelers were the only group that preferred
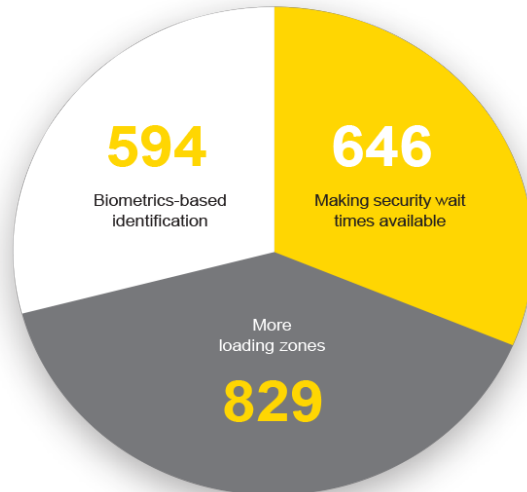
automation to human customer service for airport security – with preference rates 23% higher than leisure travelers.

Beyond pure automation, many airports are testing new security innovations to streamline lines and improve security. Recent examples include Adelaide Airport, which is <u>testing new 3D X-ray scanners that screen carry-on bags</u> without making travelers remove electronic devices. Similarly, <u>Chicago O'Hare is deploying new 3D scanning technology</u> that allows TSA to more accurately and quickly identify products in carry-on bags. Other prototypes in development – from shoe scanning technology to AI-driven identification tools – promise to speed security procedures by allowing travelers to keep everything – shoes, wallets, jackets, electronics, liquids and more – right where they are.

When OAG asked travelers which security development they were most excited for:

- 50% said advanced CT scanners that allow travelers to leave electronics and liquids in their bags.
- 28% said 3D X-ray technology that will help TSA more quickly review bag content on the conveyer belt.
- 22% of travelers said mat-based shoe scanners that travelers can walk over without removing footwear.

What are the biggest opportunities for airports to streamline security?

40% More loading zones

31% Making security wait times available

29% Biometrics-based identification

594 Biometrics-based identification

646 Making security wait times available
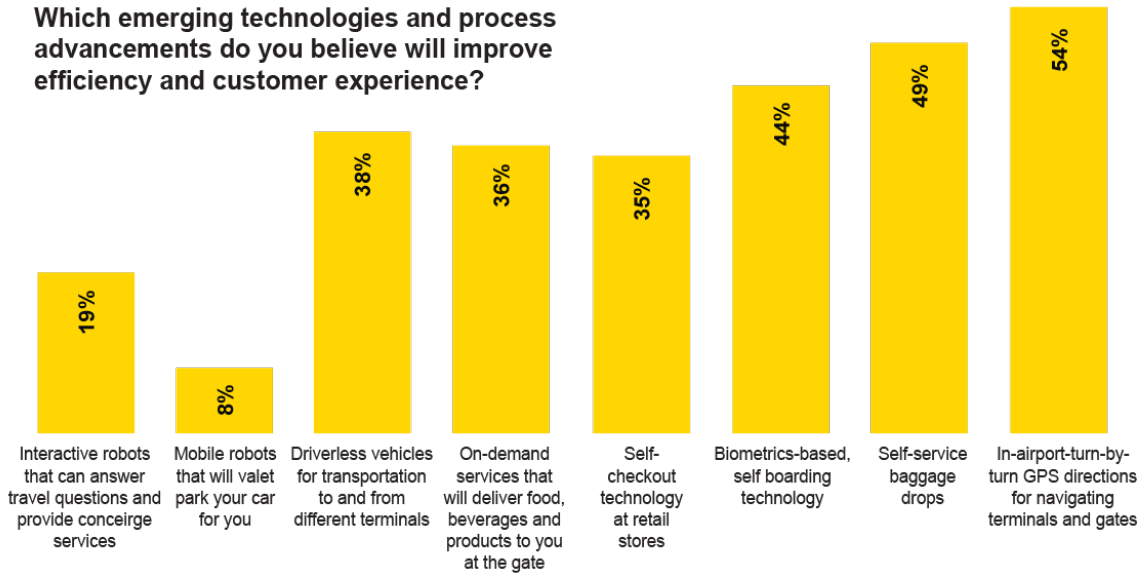
More loading zones 829

But the biggest opportunity for airports to streamline security lines may be a lot simpler. When asked which process change would speed and streamline the security experience the most, the number one response was something much more basic and affordable: **the availability of more loading zones for passengers to prepare their bags for scanning (40%).** Only 29% of travelers ranked biometrics-based identification processes as the number one choice.

FORGET ROBOTS. TRAVELERS WANT TERMINAL GPS AND ON-DEMAND DELIVERY

When it comes to the technology travelers believe will improve and streamline their experience the most, the number one answer wasn't biometrics, robots or any other emerging technologies. It was something much simpler: in-airport turn-by-turn GPS directions for navigating terminals and gates (54%).

Overall, the travelers surveyed by OAG were more skeptical about emerging technologies than expected:

Which emerging technologies and process advancements do you believe will improve efficiency and customer experience?

Category	Value
Interactive robots that can answer travel questions and provide conceirge services	19%
Mobile robots that will valet park your car for you	8%
Driverless vehicles for transportation to and from different terminals	38%
On-demand services that will deliver food, beverages and products to you at the gate	36%
Self-checkout technology at retail stores	35%
Biometrics-based, self boarding technology	44%
Self-service baggage drops	49%
In-airport-turn-by-turn GPS directions for navigating terminals and gates	54%

ONLY 7% OF TRAVELERS HAVE HAD THE OPPORTUNITY TO BOARD A PLANE USING ONLY BIOMETRICS IN THE PAST 12 MONTHS.

Self-service amenities were in high demand for younger generations. Compared to the total survey population, millennials were:

- 43% more interested in the availability of automated, self-checkout options for gate-side retail.
- 28.5% more interested in on-demand, gate-side delivery of food and beverage.
- 60% more interested in mobile robots that could autonomously park their cars.

54% of millennials, 37% of business travelers and 35% of all travelers showed interest in self-checkout options at the airport. While this has become commonplace in grocery and retail stores, in-airport adoption has been slow. But momentum is building: Amazon Go recently announced plans to expand into U.S. airports including Los Angeles International and San Jose.

Overall, consumer readiness for robotics was surprisingly low. Only 19% of travelers said they see value in interactive robots that can answer travel related questions and provide concierge services. Less than 10%

said they would value mobile robots that could autonomously park their cars – an approach currently being tested by London's Gatwick Airport and Lyon-Saint-Exupéry Airport in France.

With a healthy skepticism for emerging technology, where should airports, airline and tech providers invest? The answer is intelligence.

Resurfacing the initial finding – that travelers crave simplicity, speed and efficiency – the travel market would be well-served to go back to the basics by investing more in real-time information-sharing and transparency.

Information and intelligence remain critical for improving the travel experience. Of the travelers surveyed by OAG:

- 78% value flight delays and cancellations predictions.
- 75% want real time updates on expected boarding times.
- 77% want information on estimated security wait times.
- 55% want updates on walking times between gates and terminals.

Another way of putting it: travelers value accessible and trustworthy information substantially more than emerging technologies like robotics and biometrics.

Airlines and airports will continue to test and deploy emerging technologies – and rightfully so. Many of these innovations have the potential to completely transform the travel experience by making the day-of-travel faster, less chaotic, more enjoyable and secure. In the process, it's imperative to not overlook the basics of delighting travelers: an informed traveler is a happy and relaxed traveler, and relaxed travelers spend more.

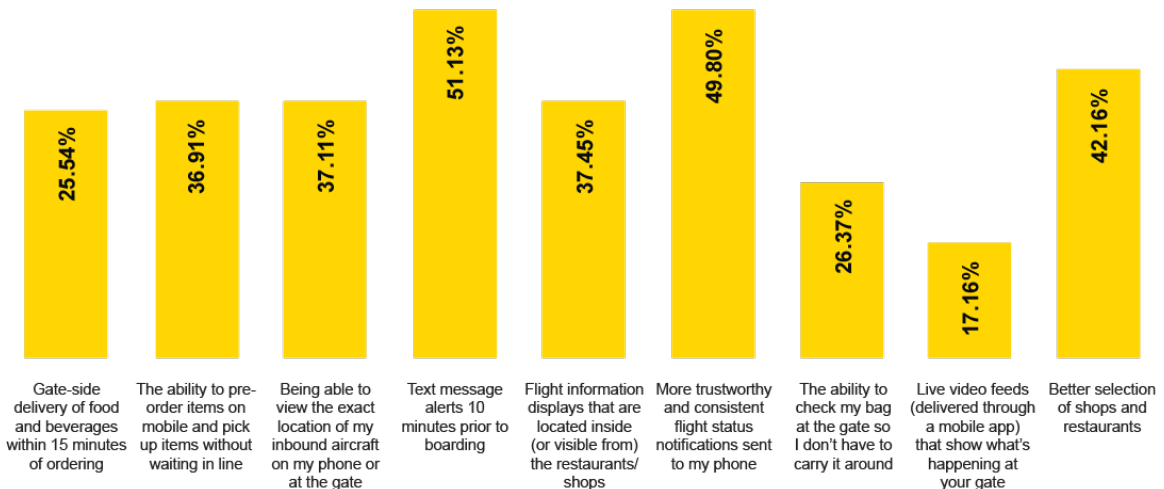## UNTAPPED OPPORTUNITIES: DRIVING GATE-SIDE REVENUE

Where do travelers spend most of their time while waiting for their flight?

- 45% said sitting, relaxing and working at the gate.
- 7% said restaurants, bars and retail shops.
- 32% said evenly split between the gate and shops and restaurants.

Travelers spend most of their time at the gate over fear of missing an important update. Naturally, gate clustering limits consumer spending, and anecdotally, tends to increase the general feeling of stress, anxiety and congestion at the airport.

Shifting these numbers – even slightly – will have significant positive ramifications for airports, airlines and retailers. OAG asked travelers which technologies and process improvements would encourage them to leave the gate and spend more money at shops and restaurants. The answer was clear: more consistent, proactive and trustworthy flight information:

Which of the following would encourage you to spend more money in shops and restaurants at the airport?

25.54%	Gate-side delivery of food and beverages within 15 minutes of ordering
36.91%	The ability to pre-order items on mobile and pick up items without waiting in line
37.11%	Being able to view the exact location of my inbound aircraft on my phone or at the gate
51.13%	Text message alerts 10 minutes prior to boarding
37.45%	Flight information displays that are located inside (or visible from) the restaurants/shops
49.80%	More trustworthy and consistent flight status notifications sent to my phone
26.37%	The ability to check my bag at the gate so I don't have to carry it around
17.16%	Live video feeds (delivered through a mobile app) that show what's happening at your gate
42.16%	Better selection of shops and restaurants

The top two responses: text message alerts 10 minutes prior to boarding and more trustworthy and consistent flight status notifications sent directly to phones.

Another revenue opportunity that's ripe for airports and providers to capitalize on: on-demand, gate-side delivery and pre-ordering through mobile. In fact, OAG found that only 6% of travelers have pre-ordered food or drink for pickup at a gate-side restaurant, but 66% would consider doing this in the future. Similarly, only 9% of travelers have ordered gate-side delivery of food and drink, but 62% are willing to try it in the future.

Several startups are looking to capitalize on gate-side food delivery. This year, San Diego International Airport became the second airport in the U.S. to capitalize on app-based food delivery within the airport through its deployment of "At Your Gate", a mobile app and delivery service that bills itself as an "in-airport personal shopper." In addition to passengers, these services benefit airport, airline and service employees, who often have even less time to grab food and drink than travelers. A similar service, Airport Sherpa, has been operating at Baltimore/Washington International Airport since July 2018.

OAG'S TAKE: FOUR STEPS TO IMPROVE THE AIRPORT EXPERIENCE, GROW REVENUE AND STREAMLINE OPERATIONS

1. **Prioritize the easy and simple wins.** Travelers are trying to get from point A to point B as quickly and easily as possible, and anything that interferes with that – even in the test stage – threatens the customer experience. While investing in emerging technology is smart and prudent, travel leaders need to **prioritize the easy and simple wins like text message alerts before boarding, more baggage loading zones in security and in-airport directions and GPS.** Oftentimes, the simple improvements relating to process and flow can have a similar, and sometimes an even bigger impact as multi-million-dollar tech investments.

2. **Capitalize on gate-side revenue: It's there for the taking.** The easiest way to delight travelers – and get them to spend more in the terminals -- is to keep them informed. It also has a direct impact on gate-side revenue. **The more comfortable and informed travelers feel, the more they are willing to venture away from the gate and patronize restaurants, retail and bars**. Yes, flight information is more ubiquitous than ever before; the opportunity lies within pushing the boundaries on the status quo. The means proactively sharing day-of-travel information in real-time and

across multiple channels – text messages, in-app, mobile notifications, gate-side, FIDS and more. **The more proactive, predictive and prescriptive the information is** – "leave early, security expected to take 15 minutes longer than average," or "Group A is boarding in 15 minutes, Group B in 30 minutes," **the more valuable.**

3. **Invest in self-service at the airport.** On-demand services have changed how we live, shop, interact and work – and that shift is starting to take hold inside airports. From self-service baggage drops and automated check-in to gate-side delivery of food and drink, **on-demand and self-service providers are creating new opportunities to streamline operations, delight travelers and grow sales.** This represents both an untapped revenue opportunity for airports, and another way increase efficiency and improve the customer experience.

4. **Human vs. machine. Don't automate too much, too fast.** Automation and self-service bring immense benefits to travel – but there's still a sizable portion of the population that prefers human customer service. Some new automation deployments can actually slow processes down. As the industry explores new ways to automate, it needs to **balance its thirst for technology with real, human-touch customer service.**

TAKE THE NEXT STEP

Are you looking for more? We think you'll be interested in the following OAG research and reports:

➢ **Four reasons why travel tech providers should invest in premium flight data solutions**
➢ **The future of travel booking and payments**
➢ **Travel tech innovation: evaluating travelers' appetite for adoption**

About OAG
OAG is a leading global travel data provider, that has been powering the growth and innovation of the air travel ecosystem since 1929.

Every day, we support millions of journeys across the globe, enabling a simpler, seamless and more enjoyable travel experience. With the world's largest network of schedules and status data, and leading-edge analytics tools, we enable our customers to make smarter decisions, better adapt to change and create exceptional customer experiences.

We partner with some of the biggest global brands, airports, airlines, travel operators and fast-growing start-ups to design the best services available today, and the finest innovations of tomorrow.

Headquartered in the UK, OAG has global operations in the USA, Singapore, Japan, Lithuania and China.

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