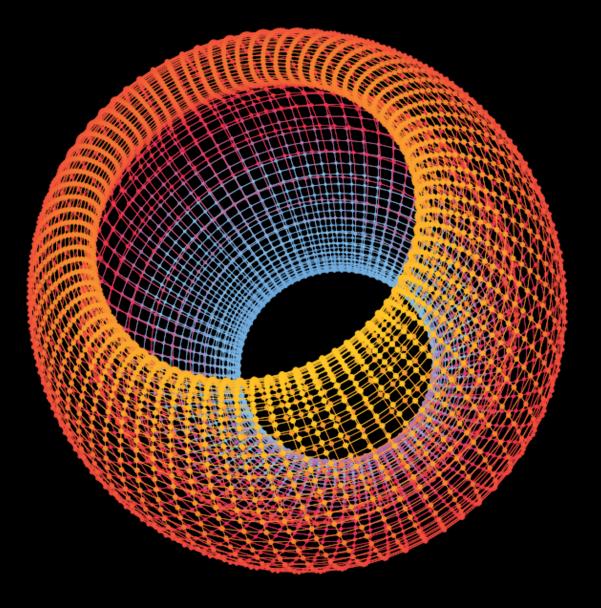
Deloitte



How COVID-19 is challenging orthodoxies in airport customer experience



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Executive summary

The COVID-19 global pandemic has had significant impact on the global aviation industry; with flights down by nearly 80 percent by early April,¹ airports have had to make major operational adjustments, from limiting or eliminating concessions hours to consolidating terminals and security screening operations. We're also seeing airports implement new health and safety measures to protect employees and passengers—from increased cleaning schedules throughout the airport to providing personal protective equipment (PPE) for all airport staff. Some airlines and airports are even exploring health screening of employees and passengers.

With stay-at-home orders in place in countries across the globe continuing to limit all but essential travel in many regions, consumer behaviors are already shifting in everyday life—from wearing PPE to the grocery store to restaurants implementing 'contactless carryout'. We expect to see similar shifts in behavior in air travel, with passengers placing greater emphasis on things like airport cleanliness, and potential reluctance to engage with technologies or processes that require physical touch. Recent literature published by Airports Council International, and in recent webinars hosted by International Airport Review and Fast Future & Future Travel Experience, all pointed to a renewed focus on instilling confidence in passengers that their journey is safe and sanitary—pointing to the critical need to adapt to this enhanced focus in a post-COVID-19 world.

To do so, and for airports to not only recover from this global crisis, but truly *thrive* in the new normal, airports will likely need to challenge traditional orthodoxies in how they serve their customers. The near-term and long-term future for airports will not be easy. And with passenger volumes at record lows and the future uncertain, operational and financial considerations are justifiably top of mind for airport operators. But the airports that achieve the most success coming out of the COVID-19 pandemic will likely be those that understand how their existing orthodoxies have been challenged. These airports recognize the importance of addressing changed passenger and employee needs, and will be ones who show agility to change and adjust early in the recovery. In this paper, Deloitte examines 5 orthodoxies around the passenger experience, and how airports can respond to these new expectations from their customers in a post-COVID-19 world.

Introduction

or·tho·dox·y /'ôrTHəˌdäksē/ noun authorized or generally accepted theory, doctrine, or practice.

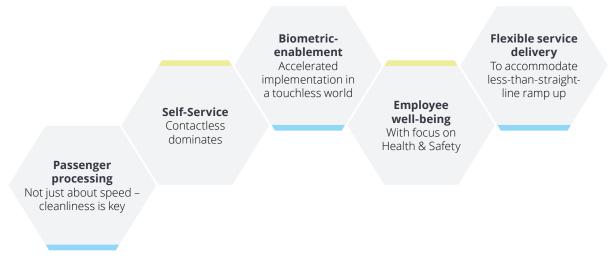
We all have orthodoxies—deeply held beliefs about "how things are done" that often go unstated and unquestioned. These orthodoxies often become standard practices that help individuals and institutions function more efficiently. But they can also lead to a dogmatic resistance to change and blind spots that can prevent us from developing new and better ways of working. In practice, challenging, and even 'flipping', these orthodoxies can often lead to drastic improvements.

Sometimes critical events or external factors force a rapid examination of and challenge to existing orthodoxies. In the face of the COVID-19 pandemic, airports are forced to evaluate currently set approaches to airport passenger experience, and adjust to these changing expectations in a way that allows them to thrive in the 'new normal'. Successfully understanding these changing expectations – and how it challenges traditional thinking around customer experience – can allow airports to effectively resume service in a way that inspires confidence, protects employees, and delivers an experience commensurate with passenger expectations. Considering these new needs and behavioral changes can enable airports to elevate and adapt themselves to address the increased awareness of passengers and airport employees post COVID-19.

Addressing these orthodoxies does not have to be complex – they can be driven by near-term process changes and accelerated in the months ahead with technology and more permanent solutions. It is important to acknowledge, though, that the 1, 2, and 5+ year strategies that were valid even 30 days ago (and often took many months of work to develop) may no longer apply, forcing airports and their stakeholders to examine and consider immediate changes.

With shifts in airport customer priorities (and increased emphasis on specific areas) in a post COVID-19 world, airports must rapidly adapt to bring existing customers back to their airports, instilling confidence in both business and leisure travelers that they can safely spend time in and process through the airport, and enable employees to feel safe and comfortable returning to work. In this document, we examine **five** existing orthodoxies in the airport passenger experience that are challenged by the COVID-19 pandemic.

Five key orthodoxies that are challenged or accelerated in a post-COVID-19 world



Understanding how to alter or update pre-COVID-19 strategies to align with new customer expectations can position airports for success while improving passenger satisfaction in the 'new normal."

Orthodoxies challenged by COVID-19

Passenger processing technology was key. The future may be more about facility cleanliness.

Existing orthodoxy

In the past, passenger satisfaction was largely driven by speed and efficiency. Prior to COVID-19, experience and passenger processing speed and efficiency were two critical factors in driving a passenger's overall satisfaction. Anybody who flies can attest to the inherent anxiety that comes with the uncertainty of time spent at chokepoints throughout the airport.

Sensing an opportunity to improve customer satisfaction by improving efficiency, technology service providers developed capabilities to ease passenger concerns—queue measurement to display wait times,² tray return systems,³ and use of biometrics with services such as CLEAR⁴ have taken some of the uncertainty out of the security experience. Other analytics solutions, such as people-tracking and terminal modeling, have enabled reduction of chokepoints and increased efficiency. As passenger screening technology continued to evolve, pre-COVID-19 airports were achieving a new equilibrium between the ease of passenger processing while maintaining critical security and service levels.

How COVID-19 is changing passenger needs

All public spaces are now possible zones of coronavirus transmission. Airports present a heightened measure of uncertainty because they are fundamentally full of passengers from far off places—places where the incidence of COVID-19 is unclear. While passengers may have a feeling of how prevalent coronavirus may be in their home or destination communities, every other passenger in the airport terminal presents a potential carrier.

Because the perceived risk of spending time in an airport is higher than it has been since the immediate aftermath of the 2001 terror attacks (and perhaps higher still),⁵ passengers are now watchful for signs of danger. While the responsibility to help mitigate terror threats falls primarily upon government-run or sponsored security screening entities, they have traditionally not been in charge of health screening of passengers. This has driven discussion on who owns the responsibility to alleviate coronavirus fears—and it falls largely to the airports themselves (including stakeholders such as airlines who play a significant role in terminal operations) and spans the entirety of the airport, from curb to gate. And services that mitigate coronavirus risk are often not noticeable unless personally witnessed by a passenger. These different risk factors require airports to think differently about how technology can be used to transform cleanliness as dramatically as it has for security and passenger processing and to communicate with passengers about their cleanliness programs to increase awareness and ease of mind.

What airports should do

In the near term, airports may pursue opportunities to leverage technology to help custodial services perform as efficiently and effectively as possible. Increasing channels for passengers to report service issues can improve custodial responses and create a sense of control over the environment. Airports can also take steps to inform passengers of custodial measures already taken to convey commitment to cleanliness—proactive and specific communications can give passengers confidence that the airport environment is clean and sanitary. Finally, airports can consider the extent to which they want to be involved in direct passenger health through temperature scans and other advanced health screening technology and look for opportunities to collaborate with airlines and terminal operators to implement health-screening capabilities and other services. For example, stand-off temperature and fever detection systems can help identify passengers for additional screening. The use of standard no-touch forehead thermometers can also provide additional health and safety confidence for passengers.

Airports (and their partners) may also consider implementing specific solutions across their facilities or making changes to existing solutions that render them palatable in a post-COVID-19 world. For example, airports should consider changes to wall-based tablets in restrooms (which on their own may need to evolve or provide assurances that they are clean)—such as touchless sensors or application of anti-microbial agents to tablet surfaces—and enhancing analysis of customer survey data to rapidly identify unique insights and action in real time. Clusters of negative responses can be used to automatically send alerts to custodians. IoT-enabled fixtures and sensors at waste bins, sanitizer dispensers, and other receptacles of personal hygiene consumables can also drive restocking activities to prevent service failures. When harnessed in an integrated view, this ecosystem of data can greatly improve the responsiveness of custodial service providers, shifting schedule-based cleaning to a need-based system.

Gathering satisfaction from customers doesn't have to be limited to a free-standing unit or wall mounted tablets however; most passengers already carry a far more powerful computer in their pocket. In 2014, the city of Buenos Aires, Argentina, deployed a "responsive city" application, which enabled citizens to report infrastructure issues with their smartphone cameras, automatically generating a geo-referenced ticket for the maintenance contract holder. As a result, the number of tickets over time increased, while citizen complaints decreased.⁶ Similarly, San Diego launched a Get It Done 311 app in 2018 to allow citizens to report problems, request neighborhood repair, and access services, all enabled by a CRM to manage and process cases.⁷ A "responsive airport" app can similarly empower passengers to feel control over the cleanliness of their environment by generating task orders queued automatically for airport custodians. Incentives to participate can range from in-app badges or awards to coupons towards concessions purchases, driving passenger engagement.

Informing passengers when the last time their location was cleaned is another way to convey activity that is largely unseen. Dynamic signage in gate areas, FIDS systems, dynamic displays, restroom displays, and even mobile apps using location data can all include "hours since last cleaning" information. Articulating the airport's commitment to providing a safe and hygienic environment—via static messaging over the PA system, in dynamic displays, and within social and online media—reinforces the message of cleanliness as repetition has been proven to increase consumer awareness of brand values.⁸

Lastly, as cleanliness continues to evolve from a background to a foreground value driver for passengers, airports should seek to establish common standards and industry accolades. In the same way LEED certification is now a recognizable mark of a building's commitment to sustainability,⁹ a designation defined and awarded by the industry creates a north star for airports to pursue and reap the brand recognition from attaining or maintaining a "gold medal" standard.

Passengers don't just want self-service—they want it enabled by no touch.

Existing orthodoxy

Self-service was (and still is) the future. To personalize the traveler experience, improve speed and efficiency, and reduce staffing requirements, self-service became a critical standard in the passenger journey. At multiple touchpoints—check-in, security, concessions, immigration—self-service kiosks have replaced jobs traditionally performed by airport or airline staff.

In October 2019, International Airport Review reported that the global market value for airport kiosks was expected to grow at a CAGR of 12.7%, reaching total market size of US\$5.2 billion by 2029.¹⁰ This growth was expected across regions and across touchpoints, with buyers including airports, border organizations, and airlines. In fact, self-service solutions are so ubiquitous in the airport market that IATA suspended their Fast Travel Working Group, dedicated to driving the implementation of self-service options, in 2019 as "the project has been deemed mature and self-progressing."¹¹ IATA has indicated that in 2020, 80% of passengers are using self-service technologies.

How COVID-19 is challenging self-service

What is the one thing all airport self-service technologies have in common? They require a **physical touch from passengers**. Whether a check-in kiosk, e-gate with a self-scan, or a fingerprint kiosk at the border, they all require a direct physical interaction from travelers. In a post COVID-19 era, with both actual and perceived concern about infectious disease, touch-screen self-service may no longer be the standard technology it has become for airports.

Bill Keevil, a virologist from the University of Southampton, indicated that COVID-19 can survive on touchscreens for several days at a time.¹² This means it can pass between hundreds of travelers on touch screen kiosks at multiple points in the passenger journey. A separate study in 2018 found that the dirtiest point in the passenger journey was not the bathroom—it was the touchscreen at check-in, which had 10 times the contaminants of the toilet seat.¹³ As passenger volumes increase after the pandemic, it may not be reasonable to clean the screen every time between passengers. If passengers avoid them entirely, check-in lines may increase, and traditional staffing models may no longer be sufficient for passengers using in-person check-in services. The prevalence of self-service solutions across the passenger journey amplifies the risk for post COVID-19 airport passenger experience.

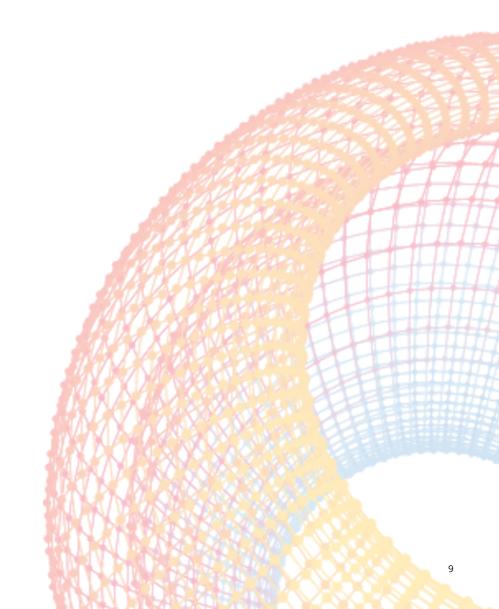
Self-service won't go away in the airport and passenger journey. It brings significant cost savings for airport stakeholders and improves processing efficiency. But it will likely quickly transition from **self-service** to **no-touch**, with the prevailing goal of **reducing physical touchpoints across the passenger journey**.

Adapting self-service to no touch

The prevalence of touch-screens throughout the passenger journey makes it nearly impossible to immediately remove them. In the near-term, airports can increase cleaning protocols and rapidly deploy additional disinfecting wipes and hand sanitizer stations adjacent to any touch-screen services. These efforts can be publicized to instill passenger confidence.

In the medium and long term, airports can identify all touch-screen locations in the airport and identify a dedicated solution to improve or replace the touch-screen services. New technology like self-cleaning screens can augment and enhance existing solutions to improve cleanliness. Assistive technology, long-used to support passengers with disabilities, can turn existing touch-screen solutions into voice-activated and voice-facilitated capabilities. One airline has gone as far as trialing a new contactless self-service technology to perform contactless health screenings and automate existing touch-screen solutions.¹⁴

Airports must instill confidence that current touch-screen solutions are **clean and safe**, while rapidly adjusting strategy and technology plans to accommodate the **no-touch future**.



Multi-modal biometrics is the way of the future, and no-touch preferences will accelerate deployment.

Existing orthodoxy

In the years after 9/11, many governments focused on shoring up how they identify bad actors, in part, by implementing biometric entry-exit systems¹⁵ at air, land, and sea ports of entry. More recently, governments have shown a strong preference for the use of facial biometrics in the implementation of biometric screening solutions.¹⁶ And over the last decade and half, advances in technology tailored for the airport environment and decreasing costs have led to interest in integrating biometrics and a partnership between airports, airlines, and government seemed to be in the near future.

If instead of a password, we unlock mobile phones, cars, and homes with a facial biometric identifier, why not do the same when parking a car in an airport lot, getting on an airport shuttle, checking baggage, moving smoothly through airport security, and renting a car on the other end? Capturing facial biometrics enables aviation stakeholders to know their customers and support them throughout their journey with personalized services tailored to their individual preferences and needs. But it's not just an opportunity to enhance the customer experience. It also offers an opportunity to mitigate adversary risk and help government entities identify bad actors and prevent them from accessing a sterile environment or entering the country.

Some believe that facial biometrics offers an all-in-one security solution that will make airport lines and security barriers a thing of the past and paper identifiers unnecessary. In this scenario, your face is your ticket to all things in the airport environment. However, while government agencies and aviation stakeholders across the globe have made advances towards implementing biometric technology,¹⁷ a seamless travel/customer experience is far from being realized.¹⁸ Privacy and civil right/civil liberties concerns in the form of traveler data collection, use, and storage as well as concerns about algorithm bias are competing with the desire for front end risk mitigation.¹⁹ This has resulted in some localities examining legislation to impose a moratorium or ban on facial data collection,²⁰ with government entities also examining limitations on use.²¹

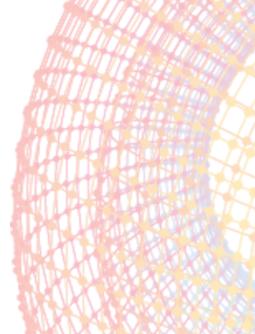
How COVID-19 is accelerating the need for biometrics across the passenger journey

Social distancing, masks, and the current COVID-19 pandemic are creating a sense of urgency and a call for immediate action—quick remedies for contactless environments and technologies that secure and safeguard our travelers and airport employees and vendors. Airports are unique ecosystems, bringing travelers/customers and all that accompanies them from around the world together. And airports feel a responsibility to prevent and reduce the spread of communicable diseases and ensure that their customers feel confident traveling. While COVID-19 demands new inquiry into contactless travel through airports, it also challenges the move towards capture of a single facial biometric as the solution. What happens when you aren't easily recognizable—or when your face is obscured by a mask? While some new facial biometric technologies may address impediments posed by a mask, facial biometrics may not be the only biometric option to create a seamless travel experience.

What airports can do to advance the biometric future

The future is multi-model and dependent on the ongoing evolution of biometric technologies. Each airport can take advantage of its own unique ecosystem as a testbed to explore touchless biometric options. The key is partnering, planning, tailoring, and governance. Partnerships within the airport with state, local, commercial, and other stakeholders can create trust and buy-in. Just as state and local communities are partnering with technology companies to devise solutions to unique community concerns, airports should do the same. This includes creating and participating in airport innovation hubs, and larger airports partnering with medium and small airports that may not have the funding for technology innovation research.

Planning for an evolving end state is critical. What investments in IT and cloud technology can be made now to field the introduction of new technologies tomorrow? What features can be considered for infrastructure improvements in an airport post-COVID? Medical assessment rooms? The introduction of thermal scanning? Tailoring for each airport's unique infrastructure is another step to seamless travel. What can be done now and what should wait? Solutions must address the critical needs of the traveler/customer and traveler support community within the airport ecosystem. To that end, airports can model every aspect of the airport environment for multi-model contactless biometric opportunities, and they can partner and leverage the capabilities of its in-house stakeholders. This means travelers, airlines, employees, vendors, and all others that call the airport home. And the key is adaptability to innovation and not a commitment to a single approach. New today is not new tomorrow, and airports must seek to tailor infrastructure to meet future needs and growth.



Employee health and safety will now define a positive employee experience.

Existing orthodoxy

It comes as no surprise that a happier workforce provides better customer service. Organizations around the world have looked beyond employee engagement and considered the employee experience more broadly.²² As a result, airports looking to transform the employee experience have focused on cultural transformation to create an atmosphere that attracts and retains the best talent. These efforts have traditionally been focused on fostering collaboration, strengthening employee well-being, and providing training and services to empower employee success. Where technology has reduced required staff, many airports have sought to redeploy employees to be "front of house," enabling a more personal interactive experience for passengers.

Airports have also sought to communicate regularly to keep employees engaged, including open two-way channels to capture feedback, promoting diversity, providing perks such as commuter benefits, generating a family friendly atmosphere, and offering discounts at airport concessions.^{23,24} Many airports have also introduced yearly recognition awards, provided trainings to make employees feel equipped to do their jobs, and implemented change management strategies to bring about a cultural shift to increase employee engagement and improve their work experience. These efforts can generate a happy workforce, thereby improving the interactions and service that employees provide to passengers and ultimately enhance the passenger experience.

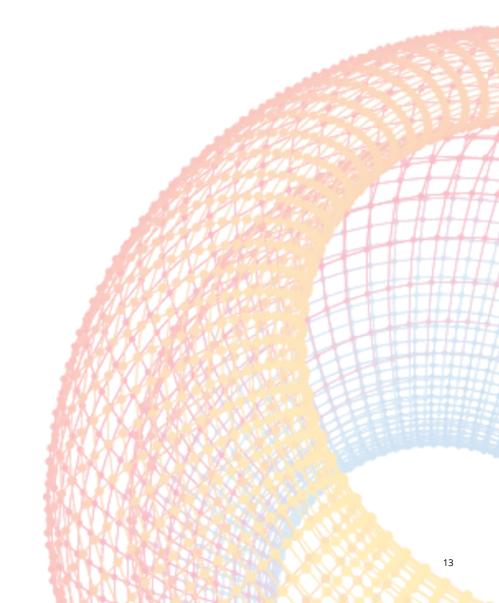
How COVID-19 is changing employee engagement

Since the COVID-19 emergency, employee focus has shifted significantly from **engagement** to **safety**. Frontline essential airport workers keep commerce and people moving and do so in roles that require close contact and continuous exposure to high-traffic public locations. This generates a new concern about access to personal protective equipment (PPE), health services, and guidance on what to do if an incident occurs.²⁵ To fully engage at work, frontline employees want to be reassured—through regular communication and visible changes—that they will be safe at work and that airport leadership is making their health and safety the top priority. While collaboration, training, and rewarding for performance haven't gone by the wayside, employees are now prioritizing their own health and safety, driving the need to change traditional employee experience programming to put health and safety front and center. Employers build trust and commitment with their employees when they react in a timely manner, prioritize people's safety over cost, and act in an open and transparent manner.

What airports can do to shift focus to employee health and safety

In the near term, airport leadership can shift focus to implementing workplace safeguards and communicating often and proactively to reassure employees of their safety. Airport leaders can clearly and regularly outline cleaning schedules, availability of PPE for frontline staff, and resources to get medical help as necessary. Furthermore, airports can look to treat employee break rooms and employee gathering places with the same care as they do passenger spaces, including making hand sanitizers readily available, adding air purifiers, and providing enhanced medical monitoring for frontline employees (e.g., frequent temperature checks).

In the medium and long term, proactive and regular communication of safety upgrades and other changes remain a priority. Airports may consider creating designated areas where sick passengers and employees can be quarantined quickly and evaluated by trained medical professionals. Additional engineering controls such as sneeze guards to protect frontline employees may also be considered. And, to acknowledge and recognize the additional stressors placed on airport employees during and after the COVID-19 pandemic, airports can look to implement specific recognition for employees who go the extra mile to promote health and safety of employees and passengers alike. As frontline employees serve thousands of passengers, identifying the right technology, equipment, and employee services for the post COVID-19 world is critical.



Airports no longer need to just keep up with passenger volumes. They need to plan for volumes to build back up and right-size customer experience operations.

Existing orthodoxy

Airports of all sizes typically have a relatively consistent pattern of operations—albeit with daily and seasonal fluctuations—that are well anticipated. Similarly, material changes to these operations, be it through the introduction of new routes and incremental frequency, typically have a lead time for airport operators to be able to plan and adapt to new scheduling and operational impacts.

While local and regional anomalies are expertly managed by airport and airline planning teams and government regulators, such as volcanic eruptions or airspace closure due to hostilities, the very uncertain nature of COVID-19 presents a significant forecasting challenge that needs greater analysis on an airport-by-airport basis. The impact to overall operations and the potential adverse impact on customer experience if appropriate operational and contingency planning is not applied raises a material risk that requires well thought-through planning. This planning doesn't just end at developing an accurate forecast however; given the significant volatility expected during the COVID-19 recovery period, airports must remain flexible in how they execute their daily operation and how they plan to serve their customers. For example, with airports operating on significantly reduced staff levels and concessions and other amenities operating on reduced hours with reduced service levels (or closed all-together), airports need to collaborate with their stakeholders to appropriately align service levels as passenger volumes return. Unfortunately, airports do not have the luxury of planning with a straight-line ramp up, and they should expect the unexpected and emphasize flexibility and agility in their recovery planning.

How COVID-19 is challenging traditional forecasting models and planning for delivery of customer facing services

As of now it's too early to say how long the COVID-19 pandemic will last or what kind of recovery will follow. Recent economic history offers numerous examples of demand-side slowdowns or stops, when consumer confidence evaporated because of future uncertainties. There are one or two supply-sided examples to study, however these all occurred in the build up to major armed conflicts. The challenge presented by COVID-19 is that while it started as an abrupt disruption to supply chains (factories closed, people in isolation), it has grown globally into a social fear that takes a heavy toll. This makes forecasting any version of a recovery, along with scenario planning, extremely difficult.

Whether the market will recover with a more gradual "U-shape," a double impact "W-shape," or an uncertain "L-shape" is all too early to tell. Airport and airline forecasters are now planning in weeks rather than months, driving the need for increased collaboration and information sharing between airports, airlines, and security agencies. This type of collaborative decision-making model is grounded in data sharing—and challenges many pre-COVID-19 norms for how aviation organizations generally share data amongst each other outside of collaboration between a few select personnel. While airports, airlines, and those that serve them are all seeking out definitive data to formulate their resumption plans, the one thing they can all plan for is the need to be flexible as passenger volumes ramp up and customer preferences evolve and change.

These forecasting challenges directly impact customer facing services, from concessions, to staffing, to retail, and even terminal operations. As different markets pick up at different speeds, airports with multi-terminal operations and a diverse passenger demographic may see large differences in load factors and volumes even within the same airport. Traditional passenger services, now heavily reduced due to the drop-off in air travel, will likely need to ramp up in alignment with these forecasts. While airports have been focused on delivering services to manage their peak volumes—and keeping up with the passengers they have—a new right-sizing and scaling may be necessary to match up with an uncertain future.

How airports can plan to meet the needs of their customers in a post-COVID-19 world

Recognizing that uncertainty is the only certainty for how the market will rebound, flexibility is critical for airports as they plan for service resumption. However, airports on their own cannot develop resumption plans that meet all the needs of their customers. They are highly dependent on their stakeholders to share information on opening status, flight volumes, and specific passenger segment needs, and to implement technologies and processes that instill confidence in their customers—all driving the need for enhanced collaboration around post-COVID-19 service resumption. This offers a unique opportunity for airports to enhance how they team and collaborate with their stakeholders, from identifying the types of services that specific passenger segments may demand and aligning concessions opening and closing hours with outbound flights to even implementing reduced-service "grab-and-go" only options to limit the need for on-site concessions staff.

So what will new models of collaboration look like? They may not just be limited to a single airport and their stakeholders. Rather, airports (and their stakeholders) have the opportunity to convene virtually to agree upon service level ramp up strategies and share how they are flexing to deliver passenger facing services in the face of uncertain passenger volumes. Airports across the globe are all contending with a similar set of issues (and same uncertainty) in planning for service resumptions, and all are looking for new ways to do business and plan for the future. Leveraging successes from one airport or selecting a set of solutions to pilot collectively among airports with similarly-complex operations can offer individual airports access to new solutions or ideas much quicker than going at it alone.

Collaboration around resumption of service planning is also aided by a willingness to share data among stakeholders where there may have previously been reluctant to do so. For example, airports can work collaboratively with their airline partners to identify passenger subsegments that will be resuming travel first, identifying a sub-set of airport services that these passenger groups are most likely to need (and want) throughout their journey, and aligning services (and goods) accordingly. However, this is dependent on stakeholder willingness to share data with one another and to do so on an ongoing basis throughout service resumption given the anticipated fluctuations in passenger volumes and terminal operating status.

Implementing this type of collaborative decision-making model is critical to meet the needs of airport customers and to manage expectations of airport and stakeholder employees. Airports, concessionaires, airlines, ground handlers, and other partners need to align on staffing plans and resourcing in order to avoid over-or-under staffing, particularly given the interdependencies between services provided. Each must also acknowledge their role in services ramp up and identify where they have the ability to accommodate fluctuations and changes – recognizing that each may need to identify specific areas in which they can be flexible in how and when they deliver services. Those airports that most seamlessly resume normal operations—and those that use this time as an opportunity to accelerate the introduction of services that advance the customer experience of their airport—will be those that most effectively collaborate within their own airports and with other airports in the ecosystem.

Concluding thoughts

Airports can take immediate action to prepare for the post-COVID-19 world but must challenge traditional orthodoxies on customer expectations

The near-term and long-term future for airports will not be easy. And with passenger volumes at record lows and the future uncertain, operational and financial considerations are justifiably top of mind for airport operators. But the airports that achieve the most success coming out of the COVID-19 pandemic will likely be those that understand how their existing orthodoxies have been challenged. These airports recognize the importance of addressing changed passenger and employee needs, and will be ones who show agility to change and adjust early in the recovery.

In the **near term**, airports can start by analyzing impacts across the journey and engaging cross-airport stakeholders in resumption of service planning. These efforts can be phased and aligned to immediate airport and passenger needs. This plan guides the return of critical passenger capabilities and delivers the confidence passengers and employees need.

In the **medium and long term**, airports may consider re-evaluating strategic priorities and planned investments. Are these correct, and do these align with a post COVID-19 world? Integrating robust forecasting, analytics, and Voice of the Customer capabilities can enable ongoing analysis and input to make sure efforts are directly aligned with changes in passenger and employee behavior, and that they ramp back up appropriately.

Immediate opportunities

- Analyze the passenger journey to understand specific areas of concern for your customers
- Collaborate with stakeholders to plan service-delivery ramp up – particularly for passenger amenities such as food and beverage
- Implement low-tech or no-tech changes in the passenger journey and employee experience that give both confidence that they are safe in the airport

Mid-term prospects

- Identify retrofit opportunities to make existing self-service technologies contactless
- Revisit planned investments to confirm they align with post-COVID-19 passenger needs
- Collaborate with
 government to implement
 health screening capabilities
 that meet local and national
 regulatory requirements

Long-term plays

- Develop robust pandemic playbooks to incorporate lessons learned from COVID-19 and be ready for the next pandemic scenario
- Accelerate implementation
 of biometric capabilities that
 significantly reduce human to
 human interaction points from
 curb to gate
- Enhance and augment operational modeling & simulation to enable realtime, dynamic responses to operational changes

The post COVID-19 recovery will be challenging for airports, but accepting changes to existing orthodoxies can make the recovery easier. Sometimes it is easiest to start with a simple question:

What have we always accepted as truth that may no longer be the case in a post COVID-19 world?

The answer can be your guide to launch a successful recovery.

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