The Digital Airport Commerce Ecosystem: How Airports, Airlines and Travel Retail can benefit from Digitalization

This whitepaper describes how stakeholders in the travel retail industry – airports, airlines, brands and duty-free operators – can benefit from digitalization and how they can begin their journey on the way to a digital airport commerce ecosystem.

Management Summary

Airports, airlines and travel retail operators are currently facing unparalleled challenges, both in the way they do business as well as in the aviation industry itself. Rapidly changing purchasing behavior by customers, the evolving E-Commerce industry and digitalization are disrupting traditional revenue streams and business models of airports and airlines.

The passenger’s buying behavior has fundamentally changed. Research shows that traditional travel retail is being challenged and major growth is unlikely. Digitalization is a threat for all key players in the aviation industry, should they choose not to change anything. However, airports, airlines and travel retailers can also embrace digitalization and view it as an enormous opportunity to find new ways to generate core non-aviation revenues. To achieve this though, they will need to collaborate and create a digital airport commerce ecosystem together. The result: A win-win situation for all stakeholders.

Airports have several competitive advantages when utilizing E-Commerce that can help them gain the pole position in omnichannel retailing. To create a digital airport commerce ecosystem and an online platform, the key players in aviation need full management support, a skilled team with a digital attitude, value-creating digital business models, enabling legal contracts and high-performance, scalable IT.

This whitepaper shows the benefits of a digital airport commerce ecosystem for all aviation industry stakeholders and explains approaches and use cases for a successful collaborative digital business, such as a “Quaternity of Travel Retail”, which will transform current problems into future opportunities.

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### Chapter I: The decline in Travel Retail – and how to stem the tide

In chapter I, we showcase the decline in Travel Retail and explain how Airports, Airlines, Brands and Retailers can deal with the situation and find ways to benefit from digitalization.

The travel retail industry has been undergoing major changes in recent years. Declining per passenger spend – despite steadily increasing passenger numbers, changed purchasing behavior and the omnipresence of smartphones – are just a few factors that are forcing airports, airlines, travel retailers and brands to rethink their business models.

Landing fees as well as fuel and other operational charges are steadily increasing and being challenged by airlines, thereby increasing the dependence on non-aviation revenues for both airports and airlines. Sustainable financial viability is seriously threatened and represents an ever-present strategic challenge.

Non-aviation revenue is the most important financial source of income for airports today. On a global basis, approximately 50% of total revenues are from non-aviation sources making these revenues the most important financial pillar of airports. Accordingly, non-aviation is one of the most important strategic areas for the future.

<table>
<thead>
<tr>
<th>Region</th>
<th>Non-Aviation Revenues as a % of Total Revenues</th>
<th>Aviation Revenues as a % of Total Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe &lt;10m pax</td>
<td>52%</td>
<td>48%</td>
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<tr>
<td>Europe 10m~30m pax</td>
<td>48%</td>
<td>52%</td>
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<tr>
<td>Europe &gt;30m pax</td>
<td>43%</td>
<td>57%</td>
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<tr>
<td>Asia Pacific &lt;10m pax</td>
<td>45%</td>
<td>55%</td>
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<tr>
<td>Asia Pacific 10m~30m pax</td>
<td>41%</td>
<td>59%</td>
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<tr>
<td>Asia Pacific &gt;30m pax</td>
<td>52%</td>
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<tr>
<td>Americas &lt;10m pax</td>
<td>53%</td>
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<tr>
<td>Americas 10m~30m pax</td>
<td>58%</td>
<td>42%</td>
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<td>Americas &gt;30m pax</td>
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<td>44%</td>
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<tr>
<td>Global &lt;10m pax</td>
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</tbody>
</table>

On a global basis, approximately 49% of total airport revenues came from non-aviation sources. Source: Moodie International and The S-A-P Group, 2015
These, and other, changes will continue to affect the airport commerce ecosystem for years to come. Therefore, airports need to be innovative in creating their new non-aviation revenue streams. Travelers are increasingly predisposed to spending more of their money online, thereby leaving less for airport shopping. Airports and airlines need to be present on those digital channels where their passengers are, if they wish to stand a chance at improving retail revenues and winning back the business of digital passengers. This disruption is well underway; major airports and airlines have already begun to digitalize their businesses dramatically.

“Despite the challenges facing the industry, there are solutions to handling this disruption. This new reality also offers numerous opportunities to not only survive but also thrive in the rapidly changing business environment.”

Kian Gould
CEO & Founder
AOE

Changing passenger behavior: The disruption of non-aviation revenues

Aviation passengers’ behavior is changing. In the past, passengers entering an airport were usually enthusiastic. Flying was new and exciting. Strolling and exploring, overwhelmed by all the impressions. Many were at a major airport for the first time. This has changed significantly. Low cost carriers have made flying affordable for a much broader spectrum of passengers, the number of frequent business travelers is booming across the globe.

Observing passengers at airports nowadays, one realizes that their behavior there is similar to behavior elsewhere: always on their smartphones, except at check-in, security and boarding. Physical animation and interaction has therefore become a significant challenge.

Looking at the statistics during the past years, the travel retail market has stagnated. Propensity to spend is dropping continuously, because shopping has become easier online – coupled with free returns, easy and speedy deliveries, increasing brand presence and direct marketing on B2C channels on mobile. Online players such as Amazon and Alibaba with their strong global presence have become direct competitors for travel retailers.

The 68.5 billion USD (2017) global Travel Retail Market is contracting. Spent per Head (SPH) is decreasing. Source: TFWA, IATA, ACI
Travel retail stagnates, while airport duty free points downwards

According to the latest survey conducted by m1nd-set, based on 50,000 passengers at twelve global airport hubs, there clearly is a change in passenger buying behavior. The only growth is happening in Asia-Pacific, which is merely driven by downtown duty free and specialty stores instead of airport and airline shopping, and by a stronger growth in passenger numbers, but not by increases in spend (Statistics conducted by retailers tend to differ slightly, but that is due to those surveys usually being conducted in-store, therefore excluding the more than 70% who had not shopped during the journey).

Pre-planned shopping is increasingly becoming the norm as more people fly more frequently and are therefore more aware of the limited time and opportunities they have available at the airport. Limited time also correlates to higher stress, as does worry about stock availability, price, size of packaging, delivery, etc. For this very reason, more people are choosing to begin their search for products online, not in-store. These passengers don’t want to browse through stores anymore, they want to complete their entire shopping online from the comfort of their home with an engaging and user-friendly digital airport marketplace solution. Passengers with the highest net worth income tend to correlate with top-tier airline frequent flyer or loyalty members, and they choose to spend their time in lounges as opposed to shopping. These are the very people who would much rather have the digital tools at their disposal to search, browse and order from the comfort of their seat, on their device with seamless fulfillment and payment across the entire ecosystem.

Moments of decision of duty free purchases. Source: m1nd-set

Planned buying becomes increasingly important

As the numbers show, providing passengers with features to simplify planned buying is becoming increasingly important. Based on a recent global survey with high-income travelers, the share of pre-planned purchases is even higher than the share for all customers, (71%, with only 29% being impulse purchases). Moreover, Asian passengers show a high preference towards planned purchasing. In fact, they are the highest spenders at most airports worldwide and appear to plan almost their entire spending beforehand. Two reasons for this are the language barrier and lack of familiarity.

PLANNED IN ADVANCE

89%

89%

85%

32%

BOUGHT ON IMPULSE

32%

30%

Planned buying is becoming increasingly important, particularly for Asian passengers. Source: m1nd-set Research
Many airports and travel retailers have converged upon a Reserve & Collect solution as the panacea for traveler pre-engagement as well as growth in retail revenues. However, conversion numbers have been underwhelming. For Reserve & Collect models, the average pick-up rate is below 50%, conversion rates are less than one percent. Compared to figures from E-Commerce merchants, these figures are below average, which, given the limited opportunities offered by Reserve & Collect, is not really surprising. These figures can be easily improved by introducing additional convenient services. For example, the introduction of online payment leads to a significantly higher pick-up rate of around 95%. With reasonable use cases and personalized offers, conversion rates of five percent are quite realistic.

In addition, there are a variety of other reasons for the limited results of Reserve & Collect solutions:

- One reason for this is that Reserve & Collect usually presents only the typical duty-free product portfolio such as perfumes and liquors. Passengers, however, are interested in a much broader range of products and are highly diversified according to passenger groups. In particular, luxury goods and products that are more expensive or unavailable in passengers’ countries of origin are of particular interest to passengers.
- Passengers need to be made aware of the Reserve & Collect models, i.e. money needs to be spent on customer acquisition and promotions.
- Shopping and transaction tools need to be secure and seamless.
- Then consider why would passengers reserve products that they can buy spontaneously at the airport, such as perfumes, cosmetics or liquor? The problem is that this is all that Reserve & Collect platforms are offering.
- Last but not the least, most of these platforms are not marketplaces and are brand or retailer-driven, which inherently makes them undiscoverable in the vast universe of shopping apps.
Chapter II: Why a digital airport ecosystem is beneficial for all stakeholders

In chapter II, we explain the benefits of a digital marketplace for all stakeholders of the “Quaternity” and show some use cases from existing airport solutions.

Let’s face it: The days when duty-free alcohol and perfumes were offered to all passengers at unbeatable prices are over. Passengers today have different expectations of travel retail shops and, above all, they are interested in other goods, especially electronics and premium products. Nowadays, researching, shopping and paying online 24/7 is standard for passengers. To meet their expectations, tailor-made product promotions must be offered on a smart platform that enables cross-selling and up-selling of products and services of all integrated shops and service providers.

Targeted marketing to known customers

It’s becoming increasingly important to know your customers and their needs, and to present suitable offers. Business travelers and frequent flyers have different needs than tourists; travelers from Asia or the Middle East have different requirements than travelers from Europe or the Americas. The acquisition and evaluation of customer data only works via digital platforms, especially in connection with a loyalty program. Providers can offer loyalty members special conditions and services such as one-click fast-track booking or lounge access via loyalty points. Prequalified personalized marketing to existing loyalty members is convenient for passengers and has high conversion rates. In addition, non-loyalty customers can be shown suitable offers based on demographic data such as age, gender, country of origin, etc.

All products and services consolidated in one marketplace

A key aspect for the development of a digital airport marketplace is the consolidation of all digital products and services on one platform. When all stakeholders such as airports, airlines, retailers and brands offer their own digital solutions, customers face a wide variety of E-Commerce platforms. Only very few platforms are noticed by passengers, and even less are actively used. The redundant costs for operating and marketing these digital solutions are not even considered. A shared digital marketplace has the advantage that passengers only have to register once and then have access to all products and services from all providers.
Premium Product Range with cross- and up-selling

An important factor for successful digital commerce is a suitable and attractive product range. Passengers use airport E-Commerce platforms primarily to gain access to the entire range of luxury and high-end products such as jewelry, handbags, leather accessories, watches, laptops, cameras and noise-cancelling headphones. One reason for this is that these are the categories where scarcity is a real concern for global shoppers. Accordingly, an attractive product range with a focus on electronics, luxury- and premium articles is highly effective in meeting passenger needs. This approach is also ideal for targeting advertising and marketing efforts. Sophisticated digital platforms enable brands and retailers to offer targeted products and convenient cross- and upselling.

Set-up of partnerships for API commerce and relevant traffic

In addition, the premium products and tailor-made promotions must be offered to passengers at relevant touch points. In order to generate sufficient traffic and meet passengers at the right time at the point of sale, the relevant sales channels need to be utilized more efficiently. For airports, for example, partnerships with airlines and booking portals such as booking.com or C-Trip make sense when offering travelers airport services such as Fast Track or VIP services during flight booking or in an aircraft – via API commerce in the partners’ channel – without acting directly as the airport.

The benefits of a holistic digital airport commerce ecosystem

It is therefore obvious that a more holistic, end-to-end solution is necessary if airlines, airports and retailers want to engage travelers digitally and convert them into shoppers directly at the airport. A seamless retail experience within the entire travel ecosystem (from airline to brand to airport) needs to be digitally facilitated if the true retail value of a customer’s journey is going to be unlocked. Benefits for the Stakeholders include:

**Airports**
- Own digital marketplace with a wide range of products
- Additional traffic and revenue generation
- Use of additional sales channels via API commerce (white label sales of own products and services on external channels)
- Seamless digital customer experience

**Airlines**
- Larger product range in own channels
- Personalized marketing
- Offer of airport services and thus additional revenue generation
- Digital Customer Experience
- Monetization of customer data

**Brands & Retailers**
- Additional sales channel
- Personalized shop offers to suitable target groups
- Sale of premium products
- More traffic generation and increased conversion rates
- Convenient cross- and upselling

Benefits of a holistic digital airport commerce ecosystem for all stakeholders. Source: AOE
If all stakeholders collaborate and contribute their strengths, a world-class digital airport commerce ecosystem with outstanding customer experience can be created, benefitting all stakeholders. These benefits are greater than those that would be possible with individual solutions, since various synergy effects can be achieved. For example, products and services of all stakeholders are no longer scattered across various apps and websites; instead, passengers can find and buy all services and products through one solution. Savings on websites, logistics, payment and fulfillment reduce costs. Moreover, total revenue can be increased through cross- and upselling and by linking commerce with loyalty programs and airport services.

**1+1=3: Creating an airport commerce ecosystem with benefits for all stakeholders**

AOE has successfully implemented digital solutions based on the OM³ platform at London Heathrow, Frankfurt Airport, Auckland Airport and Singapore Airlines. Here are a few concrete examples of use cases that provide passengers with convenience and add value to their entire journey:

- **Support planned shopping**: Asian passengers in particular value product reservations and online shopping in advance and in their own language. Consequently, an overview of the product range with special offers is an important factor. Shopping list features, personalized offers and cross-/upselling functions in combination with convenient payment- and delivery options support passengers in their shopping.

- **Convenient frequent flyer services**: Frequent flyers and business travelers often have similar itineraries, little time and are interested in convenient solutions. Stakeholders can offer special services accordingly. If the traveler is late, you offer a fast track service. If the flight is delayed, the appropriate information is accompanied by an offer for lounge access and discounts for online shopping with delivery to the lounge. Travelers receive additional points on their loyalty program account for service bookings or shopping.

- **Create attractive sales offers**: For high-priced electronics or luxury items, discounts or duty-free offers might exceed the price of the flight. For example, the duty-free purchase of an Apple computer on a trip from Auckland to Sydney is so much cheaper that the flight to Sydney is virtually free. Merchandise discounts on flights from London Heathrow to European destinations might also exceed the airfare savings when purchasing a premium watch. Such offers are extremely attractive for passengers and can be advertised accordingly.

- **Use online as advantage**: With duty-free offers, the online presentation of special premium products makes more sense than classic duty-free offers such as alcohol or perfumes, since passengers can also buy the latter as they pass by. In addition, shopping for these items online offers no additional benefit. Instead, the focus online should be on special brands and premium products, accompanied by discount campaigns.

- **Subscriptions as services**: Recurring services can be offered as subscriptions. For example, parking can be conveniently arranged as a monthly statement so that the traveler does not have to worry about travel expenses.

The range of use cases and corresponding benefits is virtually unlimited, especially if the solution is based on an API-commerce platform that allows easy implementation of new services. It is advisable to implement an integrated, scalable and easily adaptable solution in order to be able to take future needs and short- and medium-term challenges into consideration.

**Learnings and examples of use cases from existing airport solutions**

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Chapter III: Key elements of a digital airport commerce ecosystem

In chapter III, we talk about the key success factors for an Omnichannel Commerce platform in Travel Retail, why Airports have some competitive advantages in E-Commerce and how to create a beneficial win-win collaboration for all key players of Travel Retail.

Success factors of Omnichannel Commerce in Travel Retail

In summary, the following are the most important factors for successful Omnichannel Commerce:

- Multiple touchpoints before, during and after the trip
- Sufficient free traffic in relevant channels
- An attractive premium product range
- Targeted personalized marketing promotions at the right time and in the right channel
- Features supporting planned shopping, cross- and upselling
- Convenient service offers
- Infrastructure, logistics, payment and fulfillment

The Travel Retail "Quaternity": Collaboration of all key players

To achieve a holistic digital end-to-end solution with an omnichannel experience, the key players of the aviation industry need to redefine their business model along the lines of what we call "The new Quaternity of Travel Retail", which includes the four major groups of stakeholders: Airports, Airlines, (Duty Free) Retailers and Brands.

Airports, airlines, brands and retailers pursue different, and sometimes competing, interests – this makes it seem difficult at first glance to find a solution that is equally beneficial for all parties. However, if one considers the overall benefits that can be created with appropriate cooperation and which takes all major concerns of each individual stakeholder into consideration – and factoring in the risks of major E-Commerce competitors such as Amazon or Alibaba – then the question can really only be “How can such a joint solution be achieved?” In addition, as proof that it is possible: There are already airports today offering such integrated digital solutions.

Airports, airlines, brands and retailers all have some advantages and disadvantages in terms of E-Commerce, but none of the stakeholders can fully meet all requirements. Everyone is dependent on partners in certain areas or has to build up capacities at great expense.
How to create a Quaternity collaboration

The overall goal for all players is to create a truly seamless customer experience in a digital airport commerce ecosystem. This is where a mutual collaboration between all stakeholders must start. Each key player can contribute his or her core strengths to this joint proposal. In this model, the airport evolves into the (digital) marketplace provider, bringing all key players together and providing the required services such as logistics, wayfinding, real-time delivery, real-time flight information, etc. – services that only airports have the facilities to provide. The retailers and brands can provide a fitting and compelling product offering, both digital and physical. Collaborating with airlines, retailers and brands allows airports to engage with the passenger from the very beginning, even before the passenger starts his or her journey.

The crucial role of the airlines

Airlines play a crucial role in this Quaternity. Many airlines realize that pure inflight shopping from the cart is no longer a viable or interesting business as it relies almost 100% on impulse purchasing. Cost of transport here is extremely high, while range is extremely limited. In addition, luxury products often remove themselves from this equation, as they fear damaging the premium image of the brand. Therefore, it comes as no surprise that there are virtually no airlines left that manage to get more than two percent of their passengers to purchase in-flight. Nevertheless, the airlines, if managed properly, possess a treasure trove of passenger data that in theory could enable stakeholders to sell products and services of the airport with a high degree of personalization, engagement and accuracy. Unfortunately, in today’s industry, the airports and airlines still tend to work against each other rather than cooperate in this regard; it will require a significant change of perspective to realize that, together, stakeholders can increase the size of the pie – and corresponding revenues and customer loyalty – significantly. Obviously, this is far more preferable than each side continuing to cannibalize the other stakeholders’ shrinking piece of the total, smaller, pie.
**Competitive advantages for E-Commerce at Airports**

However, what competitive edge do airports have when implementing E-Commerce? Is an airport competition for Amazon or Alibaba or is it a completely different value proposition? The airport is a unique environment where service and product tend to blend seamlessly, unwittingly into each other. During the past five years of helping airports to realize their digital potential, we have come to realize that airports have several unique competitive advantages:

<table>
<thead>
<tr>
<th>Competitive advantages for Consumers</th>
<th>Competitive advantages for Retailers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Immediate product availability: No waiting time for passengers, immediate access to purchased products</td>
<td>• Low cost of returns: Roughly 30% of costs for E-Commerce are shipping and return costs. For airports, return costs are very low, as most people either return the product directly or don’t return it because they are already abroad</td>
</tr>
<tr>
<td>• Product look &amp; feel: Passengers can look at and check out real products in the store, before taking them with them</td>
<td>• Low traffic acquisition costs: Traffic acquisition is the second major cost driver in E-Commerce. But for airports, traffic acquisition comes almost for free, as potential customers are already at the airport and/or checking out the airport’s website</td>
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<tr>
<td>• Omnichannel experience: The combination of online and offline contributes to a higher conversion rate and creates a more satisfying customer experience</td>
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So, even if the current situation for travel retail is being challenged by the big players, there are a lot of opportunities waiting to be exploited. Moreover, there is one more very impactful opportunity for airports that is already in place, but has not yet been capitalized on – the potential of WiFi.

**Airport’s opportunity to capitalize on WiFi**

Most airports already offer free WiFi for travelers. A study commissioned by TFWA in 2016 and researched by M1nd-set indicates that over 80% of all passengers use WiFi at the airport. This is obviously free additional traffic for the airports, which could easily be converted. However, in most cases the airports neither capitalize on the opt-in functionality of their WiFi, nor use the landing page for commercial purposes. As an example, airports could use their WiFi policies to get approvals by the travelers to use their personal data, which most airports do not possess. Being able to use this data creates opportunities for personalized offers based on the passengers’ behavior and needs. In combination with coupons and special offers presented on the landing page, or through offers based on the current location of each passenger (e.g., located through iBeacons), capitalizing on WiFi is a big opportunity, a competitive advantage and represents low-hanging fruit for airports.

**Use of WiFi at Airports**

<table>
<thead>
<tr>
<th>Business Travelers</th>
<th>Vacation Travelers</th>
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<tbody>
<tr>
<td>Europe</td>
<td>Asia Pacific</td>
</tr>
<tr>
<td>92%</td>
<td>91%</td>
</tr>
<tr>
<td>81%</td>
<td>86%</td>
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</tbody>
</table>

Capitalization of WiFi is a big opportunity for airports. Source: M1nd-set
Integrated digital marketplace solution combines shopping and airport services

As the first and only player in the field of fully integrated airport non-aviation digitalization, AOE has managed to build on solutions and experiences it has garnered in airport digitalization rollouts for a number of major clients, including Frankfurt Airport, Heathrow and Auckland. We have combined four years of this expertise and tens of thousands of days of development work into a single one-stop solution for airports and airlines, which completely changes the way they generate non-aviation revenues digitally: The OM³ Suite. The “Omnichannel Multi-Merchant Marketplace” digital commerce solution is now live at three airports and is being rolled out continuously throughout the industry at both airports and airlines. The video below shows some exciting use cases, illustrating how airports can engage with passengers and how they can create real benefits for customers:

Link to video: l.aoe.com/om3video

The case shows: It is possible to create an exciting customer experience and real benefits through digitalization of your business model.

Personalized information and connected services in real time to create real benefits

Key for any type of digital solution is the ability to provide relevant and accurate, real-time information that makes a difference in the passenger’s journey – at any time, for any channel or device. Product availability, pricing, payment, logistics, fulfilment. Everything needs to be 100% real-time to drive a truly seamless customer experience. It is important to provide meaningful information to each target group, by personalization and profiling. This can be based on either loyalty programs, the actions performed by the channel visitor or data provided by the airlines’ partners. The marketplace should be able to adapt to the passengers’ needs at any time and always enable their desired shopping experience when it comes to delivery methods, payment and product range, because disappointed shoppers never come back, neither in retail nor in E-Commerce.

New Use Cases for High Street Shopping: Shop downtown, have your purchase delivered at the airport – Tax Free

Yet another way to benefit from such a digital solution is the integration of downtown shopping into the aviation retail marketplace – which offers an excellent service either for passengers shopping downtown or for extending product catalogs and making them more compelling with regional products. Passengers can purchase tax-free products downtown and the retailer can send the products to the airport, ready for pickup after clearing security. This service is already in place in Auckland, New Zealand, and adds a significant portion to non-aviation revenues.
Chapter IV: Establishing the Digital Airport Commerce Ecosystem

In chapter IV, we explain how to achieve a digital airport platform, what organizational changes are required and provide an overview about a recommended roadmap to achieve this goal.

How to achieve such a digital platform? Not with off-the-shelf E-Commerce software

To be clear from the outset: You can’t just buy software off the shelf and assume everything will work perfectly. To have an integrated digital solution, you need to develop an API-based platform that:

✓ Can be connected to all airport services, such as parking, fast track or lounge access
✓ Supports the integration of a wide variety of products and data formats on one marketplace
✓ Connects airport services and shopping through loyalty programs, e.g. by offering VIP services for loyalty points
✓ Is able to integrate a large number of different software solutions, from ERP, PIM and CRM to order management, fulfillment, logistics and airport systems
✓ Is connected to Business Intelligence to create data-based use cases and personalized offerings

To integrate a large number of different systems and services is neither trivial nor possible out-of-the-box. For instance, at Frankfurt Airport, AOE had to integrate more than 30 systems into the OM³ suite, including airport systems, Shop- and ERP interfaces, as well as PIM-, logistics-, payment- and fulfillment systems. These facts make it clear that digital platforms need to be scalable, flexible and services-based to create a future-proof platform. You also need a lot of expertise to create valuable business cases, efficient processes and a high-performance software architecture.

In addition to all the technical issues, there is one major factor necessary for the success of digital projects: a digital-ready organization!

*Digitalization and E-Commerce is not just another channel. It is a mind change, business change and organizational change.*

Challenge: How to make an organization digital-ready?

Many organizations are willing to implement digital transformation solutions, but are not yet ready when it comes to their corporate structure and culture. Digital transformation not only affects IT – the transformation process concerns the entire organization. Traditionally organized companies can benefit immensely from seeking outside advice as to how to digitally transform the organization. Sensitive issues that need to be addressed for successful digital transformation of organizations include, among others:

1. **Management**: Educate and convince executives and business leaders to support digitalization
2. **Team**: Set up your team with the required skills and the right (digital) attitude
3. **Digital business models**: Create value through automated processes and new digital business models
4. **Legal**: Apply contracts and joint ventures that fit the needs of digital businesses
5. **IT**: Know the requirements of a digital marketplace, analyze your IT and adapt it to the new requirements

Digital transformation also affects processes and business architecture of organizations. Source: AOE
1) Secure management support for the digitalization process

Digital transformation will change the way an organization does business. It affects all processes and the entire organizational architecture. As change management is not an easy task, difficult situations within the organization may occur. Therefore, executives and digital leaders must be completely convinced of the digital transformation process. It is important to educate the organizational leaders about the benefits the digitalization process brings and the risks they incur if they choose not to invest in digitalization. Moreover, it is necessary to clarify the urgency of digitalization by comparing what competitors are already able to do with their digital platforms. Educating management about a company’s chances and risks and showing them what the competition is capable of will help secure long-term executive support.

2) Skilled team with a digital mindset

Airports, Airlines, Brands and Travel Retailers are experts in their segments and usually have highly skilled teams that do a great job in their current environment. For many organizations, however, a shift to digital thinking is difficult because they often focus on optimizing their performance rather than completely redefining their business model. In the digital transformation of the business model, E-Commerce should not merely be seen as just another sales channel, but as a game changer:

The business model and processes must be completely redesigned and adapted to E-Commerce. Accordingly, it requires a team with the appropriate qualifications and skills. The team therefore must be comprised of employees with the following skills:

- **Digital mindset**: experience with digital processes and digital business
- **Technical skills**: Technical understanding and knowledge of the technologies used
- **Business expertise**: Understanding processes and the complex business logic of duty free
- **E-Commerce skills**: Expertise in online marketing and sales
- **Methods**: Methodological competence in the development of complex projects and digital platforms, especially concerning roles in agile projects

In addition to the right skills, an appropriate team setup is necessary. The team structure must provide the necessary roles in the team and ensure interfaces between the airport- and the service provider teams. We strongly recommend the use of agile project management methods, as agile methods are verifiably more successful, ensure transparency, reduce project complexity and have a shorter time-to-market. Here, too, the help of outside experts will help accelerate the process and make the move to a (more) agile organization more efficient.
3) Create valuable new digital business models

Help your organization to design and enable new digital products and business models. A key component of digital platforms is the ability to create a seamless customer experience. The digital ecosystem includes sales and marketing, ERP, CRM, supply chain, payment, operations and logistics. Hence, dealing with a variety of partners such as suppliers, distributors as well as technology- and service providers is necessary. This requires collaboration of all parties, but also leads to new opportunities for all stakeholders.

4) Legal: Create contracts and joint ventures that enable digital business

Creating digital business models requires an appropriate legal foundation that enables partnerships and services across corporate boundaries. Airports and airlines must enter into (new) contracts with retailers and, if required, form joint ventures. These must regulate the exchange of customer data in strict compliance with data protection laws (GDPR data protection). Concession Fees and contracts need to be renegotiated, as products are no longer sold offline only in the store, but online via E-Commerce as well. In addition, payment contracts must be created and the contractual situation between the customer and the retailer must be clarified/legalized. Standardized point-of-sale cash register systems are highly recommended.

5) Analyze IT and check requirements

IT has to support collaborations and joint ventures with partners such as airlines and retailers, to allow the legal exchange of customer data. Digital transformation has certain IT requirements that enable digital processes and data exchange in real time. The first step, therefore, is to analyze the current state of the IT: Which systems already exist? What does the company operate in terms of shop system, applications, databases, CRM, BI, etc.? In the second step, existing systems need to be evaluated: What can be (or must be) adapted? Which systems need to be updated or upgraded? Does the organization require additional software solutions, and if so, which ones?

All the research we conducted in the last two years shows that what AOE started at Frankfurt Airport is the future.

Peter Mohn
CEO
mInd-set research

An important requirement for IT is the connectivity of systems, as well as real-time data processing. The business cases in the travel retail industry require the exchange of passenger data as well as the connection with the retailers’ CRM systems and the loyalty program of the airport. Many different systems of different organizations need to be connected, which re-defines the roles of different organizational units.
Planning: Develop a roadmap for your digital platform business

Many organizations start their digitalization process by optimizing their commerce performance with digital technologies, testing new ways and gaining incremental benefits over time. This is perfectly fine, as it is a great way to gain experience in digital business. This approach provides great value with minimal risk for the company.

However, digitalization will continue to gain momentum and the expectations of customers and partners towards the company will increase. Accordingly, it is important to have a vision for the digital future of the organization for the next five to ten years. Airports, Airlines, Brands and Travel Retail should build a roadmap for digital platform business that guides them through the journey from optimization to transformation into a digital airport commerce ecosystem. We recommend the following steps:

1. **Develop a vision**: What should your digital business look like in five to ten years?
2. **Digital business roadmap**: Plan how to change from optimizing to transforming your business
3. **Start building your platform**: Assess your IT and start building your API architecture

OM³: The airport digitalization platform

AOE’s award-winning OM³ platform is a digital marketplace, consisting of a unique and modular set of pre-integrated omnichannel functionalities, services and infrastructure. It enables customized selection of functionalities according to airport-specific business requirements. OM³ was successfully implemented at Frankfurt Airport, Heathrow Airport, Auckland Airport and Singapore Airlines, and many other airports and airlines are on their way to digitalizing their non-aviation revenue streams. More information on aoe.com/om3.

MORE INFO ABOUT OM³ AND AIRPORT DIGITALIZATION?
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