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Travelling in a COVID World - T2RL's Outlook

April 2021



INTRODUCTION

This is the fourth edition of T2RL's analysis of the market recovery for the airline industry during and after the COVID-19 pandemic. T2RL will update this document on a quarterly basis as new information and developments become apparent.

T2RL's View

The world is a very different place today than it was this time last year, and even more dramatically different from 2019. It is also now apparent that some of the changes seen in the past year are here to stay for quite some time.

The rollout of viable vaccines against COVID-19 has progressed in some markets since the start of the year, with most developed countries set to follow a steady path to vaccinating the majority of their populations by the start of 2022.

For other markets, the timeline is a lot longer with countries like Cambodia, Fiji and Laos not expected to vaccinate at least 60% of their populations before 2025.¹ This is unfortunately where the divide in the travel market will be.

International travel and tourism are critical for many countries as a principal contributor to overall GDP. To balance the economic threat with the threat to the health of the local population without the need for lengthy quarantine periods, smart/digital vaccination certificates will be essential.

As defined by the World Health Organisation (WHO),

'the concept of digital vaccination certificates or "smart vaccination certificates" (SVCs) is proposed to provide a mechanism whereby an individual can present documentation that claims they have received a vaccine and this claim can be cryptographically verified by an interested party'.²

¹ The Economist Intelligence Unit, AAPA

²https://cdn.who.int/media/docs/default-source/documents/interim-guidance-svc_20210319_final.pdf?sfvrsn=b95db77d_11&download=true

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Despite controversy around discrimination issues, smart vaccination certificates which help to combat fraud will realistically be the only way certain markets will be able to open their borders to international travel in the coming years.

Although there is now some light at the end of the tunnel with vaccination programmes running for the most part to plan, there are still many uncertainties with regard to global travel. The emergence of new variants of the virus has brought on third and fourth waves in some countries. Testing and quarantine procedures that in many markets are still very expensive with long waiting lists, as well as political challenges when it comes to opening borders and restricting movements are all hurdles the travel industry still has to overcome.

Nevertheless, airlines are already testing mobile apps that hold digital vaccination certificates. American Airlines is rolling out a VeriFLY health passport, where a traveller can carry all tests and medical certificates related to Covid-19 on their phone.³ IATA has released a Travel Pass initiative⁴ and the European Commission has proposed a Digital Green Certificate to prove that a person has been vaccinated, received a negative test result or recovered from Covid-19.⁵

The issue moving forward will be how to standardise the many approaches that will appear. Fortunately, managing multiple standards is something in which the airline industry has lots of experience.

T2RL has now released definitive passenger numbers for 2020, showing 1.86 billion passengers boarded for the full year. This is 60% down on the 2019 number but it will still not reflect the full impact of the pandemic as most airlines had a relatively normal first quarter 2020. Even though some strong domestic markets have bounced back near to their 2019 passenger levels, the market is still volatile. India domestic activity was down 36.7% in February this year⁶ but Russia only saw a decline of 5.4% of its domestic traffic in January compared to 2020⁷. China on the other hand, saw further outbreaks of the virus which led to government warnings and restrictions on travel. Passenger numbers were

³ <https://news.aa.com/news/news-details/2021/More-Access-More-Ease-American-Airlines-Expands-its-Acceptance-of-VeriFLY-App-at-All-Airports-OPS-DIS-02/default.aspx>

⁴ <https://www.iata.org/en/programs/passenger/travel-pass/>

⁵ https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1181

⁶ <https://www.dgca.gov.in/digigov-portal/?page=jsp/dgca/InventoryList/dataReports/aviationDataStatistics/airTransport/domestic/airTraffic/Traffic%20Report%20FEB%202021.pdf&main4264/4206/sericename>

⁷ <http://fvt.gov.ru/novosti-novosti/?id=7488>



down 55% on 2019 levels in February 2021, despite having made a healthy recovery at the end of 2020.⁸

There is still evidence of significant pent-up demand in the market and when government restrictions are lifted travel is expected to return rapidly, at least in the leisure segment. IAG reported an instant increase in bookings when the air corridor from UK to the Canaries was opened in October.⁹ Wizz Air CEO, Jozsef Varadi also said in January that '*until the most recent restrictions, bookings were surging.*'¹⁰

In recent times, international travel made up around 42% of the global market.¹¹ It will be quite some time before this will return for all regions. In our last report we identified four categories of countries that were taking different strategies to re-open their borders to international travel; Vaccine reliant markets, COVID-free markets, Testing focused markets and Developing markets. T2RL has highlighted the differences for these groups below.

In general, culture is evolving towards learning to live with the virus and in terms of travel, vaccine certifications and testing will soon become as normal as taking off your shoes and separating out liquids from hand luggage at security.

⁸ <http://news.carnoc.com/list/556/556727.html>

⁹ <https://www.iairgroup.com/~media/Files/I/AG/press-releases/english/2020/Interim%20Management%20Statement%20for%20nine%20months%20to%20September%2030%202020.pdf>
To note that from 12th December this air corridor has now been closed again, with consequent implications for cancellations and refunds.

¹⁰ <https://www.bloomberg.com/news/articles/2021-01-28/easyjet-posts-88-revenue-drop-as-virus-wipes-out-quarter#:~:text=While%20the%20timing%20is%20uncertain,%2C%20they%20want%20to%20go.%E2%80%9D>

¹¹ T2RL



RECOMMENDATIONS

Contracting

The most significant change in the Airline IT market in recent months is that vendors are now under immense pressure from shareholders to mitigate further risk from the pandemic or similar reoccurring events. This involves implementing cost cutting measures as well as changing business models to include, as standard, minimum charges including passenger boarded fees in PSS contracts.

Amadeus reported a drop in revenue of 61% and decrease in EBITDA of 89.8%¹² in its full year 2020 results. Sabre reported 66% decline in revenue¹³ and even TravelSky, which has had an easier time than most vendors, reported a decrease in revenue of 33%¹⁴

Change in business models will have multiple knock-on effects in the industry. It will effectively reduce the benefits of outsourcing to airlines as they will be locked into costly fixed term fees where they would normally hope to switch fixed costs to variable. For airlines that are using in-house developed systems there will be less of an incentive to migrate as they are likely to have better control of their internal fixed costs. However it is worth noting here that very few airlines still use an in-house system for PSS. After years of outsourcing to PSS vendors the in-house segment now only makes up around 10% of the market.

More fixed minimums will also make vendors less affected by an airline's success or failure, meaning they will have less of a vested interest to partner on value driven solutions and business outcome contracts. Forward thinking vendors should be looking into how they can share risk and reward in the future. This would prove an attractive proposition to airlines in the next contract renewal cycle.

Traditional areas for airlines to reduce overheads include outsourcing the likes of servers and network architecture and moving to more cloud-based infrastructures. Vendors are now taking this approach themselves, outsourcing their own infrastructure capabilities to cheaper, higher volume, players such as Google, AWS and Microsoft. **Airlines will need**

¹² <https://corporate.amadeus.com/en/newsroom/amadeus-mitigates-the-impact-of-the-covid-19-pandemic-and-continues-to-invest-for-the-future>

¹³ <https://investors.sabre.com/static-files/dfdc5bf8-8789-4721-9bb9-ee014f3711cb>

¹⁴ http://preview.todayir.com/travelsky/attachment/202103312140025779688516_en.pdf



to be vigilant when vendors approach this subject in their contracting. SLA terms and data control are two major aspects where airlines will need to be particularly attentive.

Many airlines have now renegotiated their contracts with IT providers and should be aware of these costly changes. Likewise, airlines that have subscribed to bundled services should take a close look at their contracts and conduct a thorough audit of all subscribed IT tools to see if there are any services which are not being used or are a duplication of other applications. These can also be used as a pawn for renegotiation.

Moving forward airlines will need to better plan for risk. Reoccurrences of the pandemic or further outbreaks will spur the need to be extra diligent in contracting – force majeure, material adverse effect provisions and business continuity clauses will need to be addressed. Including a ‘material change of business clause’ in contracts will now also be essential. This in turn will lead to more costs associated with contracting in general.

Distribution

T2RL believes that it will be some years before the GDS market reaches the same levels as 2019. With limited traffic being sold via the GDSs, now is the time to renegotiate distribution contracts, especially with regard to domestic traffic where a substantial share is generally sold direct. If airlines are successful in selling their domestic and even simpler international routes in direct channels they will have the ability to demand lower domestic GDS fees or even to take domestic content out of the GDS altogether as Air India did with its domestic travel sellers¹⁵.

Airlines could also start to take advantage of direct connects with Online Travel Agents (OTAs), Travel Management Companies (TMCs) and traditional travel agencies as another negotiation lever, although distribution via these direct channels brings its own challenges compared with using the GDSs. They may use NDC but other APIs are available and may be easier to implement. There is potential for those airlines that had invested in NDC pre-COVID to resume using those networks. Certain larger airlines have been using their direct connect capabilities coupled with surcharge models to negotiate better deals through the GDS. Air France-KLM NDC content can now be distributed through Amadeus and is available to agents that sign bilateral agreements with both AF-KLM and Amadeus¹⁶.

¹⁵ <https://amadeus.com/en/insights/press-release/amadeus-air-india-new-distribution-agreement>

¹⁶ <https://amadeus.com/en/insights/press-release/air-france-klm-amadeus-ndc-agreement>



These agreements will no doubt have more favourable commercial terms which will be decided on an individual basis.

Likewise, being tied into full content agreements that enforce fare parity across all channels can be unnecessarily restrictive. Airlines need to be able to react quickly to the market environment and full content agreements are an unnecessary burden.

IT Capabilities

In general, this has been a tough year, probably the toughest so far for airlines and IT vendors. Nevertheless, there have been some major positives achieved. In a market that is normally notoriously slow to adopt new practices, airlines have moved quicker than ever in adapting to new ways of working and have been a lot more willing to take risks as they have little to lose in trying.

Particular areas we are seeing take immediate priority are the following;

Demand Forecasting

Demand forecasting is still a major void in an airline's current IT landscape. Current revenue management solutions which have focused on using historical data to map future demand are no longer relevant in today's market. New approaches of demand forecasting are needed. Some vendors such as PROS and Amadeus have put in place task forces within their research departments to integrate additional data sources into their forecasting algorithms. These include tracking of border closures, quarantine regulations, and epidemic data to act as extra inputs to modify demand forecasts. Others, like Accelya are used to forecasting demand using other sources such as competitor data. Recent market entrant Kambr has won the business of one of the giant LCCs, Air Asia, with its new generation Revenue Management system that uses online shopping data as the basis for its demand forecasts.

Network and Schedule Optimisation

Network and Schedule Optimisation is another area where we are seeing investment, ranging from traditional optimisers to a more dynamic approach. The definition of 'dynamic' differs somewhat between different vendors and different airlines. T2RL defines this as being 'responsive to real-time demand' as opposed to being 'based on a demand forecast'. In order to manage volatile market conditions airlines need flexible tools to optimise schedule building and last-minute changes. Many airlines have been proposing their full schedule of flights only to cancel and reschedule at last minute due to a change in circumstance or lack of demand. This is an inefficient process that not only adds cost

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but also creates frustration in potential customers. Vendors that are currently offering optimisation tools in this area include Amadeus's Optym, Sabre's AirVision Suite, Seabury, Solution-Tek and S3RUS. It is also important to think about the knock-on effects to fleet assignment, pairing and crewing solutions, which in order for the end-to-end solution to be effective will need to become 'dynamic' as well. This would mean looking at a wider portfolio of operations solutions including those offered by vendors such as CAE (formally Merlot.aero), IBS and S3RUS, amongst others.

Biometrics and medical passports

These are now being added to all RFPs for customer-facing solutions. To be fully effective these processes will need to see a standardised approach between governments, which may take some time. The market at least shows that biometrics and medical passports are seen as the way forward for now and vendors are expected to propose solutions that will no doubt be refined over time.

Looking further down the line airlines will need to work closely with airports to see how digital vaccine certifications and test results can be stored, shared and serviced in an efficient and self-service manner to ensure the least drain on check-in and boarding staff as well as preserving privacy and security of customer data. Amadeus has released a Traveller ID Health widget that allows the traveller to scan their test results in an airline's app which can then be scanned at the airport for automated verification, putting more focus on self-service.

Digitalisation

The downturn in traffic has also meant an opportunity for airlines to get projects under way with reduced risk. Vendors focused on digitalisation are reporting positive conversations with airlines that are looking at ways to cut overheads and put more focus on self-service operations. The increased proportion of direct sales in the upcoming years will also mean this could be money well spent. These capabilities include;

- Self-service check-in, bag drop and boarding
- Streamlined online servicing to manage exchanges and refunds
- Acceptance of diverse payment methods
- General mobile capabilities to keep in touch with customers

Cargo

Opportunities are still being seen in the area of cargo. Lufthansa Cargo reported a record result in The Lufthansa Group 2020 annual report, the only division to make a positive



contribution to earnings¹⁷ A shortage of containers with resources being stuck in ports due to COVID has meant this demand has been further concentrated. Cargo Revenue Management, capacity optimisation and in-transit shipment monitoring are just some capabilities being offered by vendors such as IBS, SmartKargo, Accelya and Wipro, amongst others.

Loyalty Redemption

In the coming year or two T2RL expects airlines will need to put more emphasis on loyalty miles redemption in order to decrease the deferred revenue liability which has been steadily accruing and balance out their books. Airlines will be reluctant for members to redeem miles on actual seats as they will need as much cash injection as possible, therefore focus will need to be on enticing members to spend miles on ancillaries, upgrades and external partners. Vendors offering ready-to-go retail solutions in this area as well as already established partner networks include OpenJaw, Switchfly, Loylogic and Collinson as well as other ecommerce/digital providers.

Interlining

In the medium term, as we expect airlines' international networks to be much reduced compared to 2019, passengers with true global requirements are likely to need to do business with multiple carriers. Interline itineraries will therefore be unavoidable. Legacy PSS vendors have long since offered traditional methods of interline but there are now other vendors offering virtual interlining solutions that may be worth a look, such as Air Black Box and Dohop as well as other providers investing in NDC Interlining such as IBS.

¹⁷ <https://investor-relations.lufthansagroup.com/fileadmin/downloads/en/financial-reports/annual-reports/LH-AR-2020-e.pdf>

VACCINE RELIANT MARKETS

It is now apparent that there are specific markets relying predominantly on vaccines where cultural and economic influences have meant other strategies have fallen by the wayside. Examples of these markets include the USA, UAE, Israel, UK and some EU countries.

At the start of April, 40% of adults in the US have already received the first shot of the vaccine.¹⁸ In the UK, 47% of the population has received at least one dose¹⁹ and the EU plans to vaccinate 70% of its population by the end of the summer.²⁰

Together these markets made up around 57% of global International travel in 2019 and a third of these passengers were reserved on the Amadeus PSS.²¹

Due to the rapid rate of vaccination we can expect borders to these markets for inbound travel to be opened and quarantine restrictions lifted before other regions, in certain cases even in the next couple of months. There are still uncertainties with regard to the longevity of the vaccine, effectiveness against variants, availability and willingness of populations to be vaccinated, so some caution is still to be expected. It is quite possible that there will be backward as well as forward steps in the process.

Some European countries are likely to delay opening borders as they currently have heightened restrictions due to a third wave of the virus.

The UK has announced a likely 'traffic-light' plan in the re-opening of borders to certain countries where markets will be classified according to criteria *'including vaccination rates, infection rates and prevalence of variants of concern as well as their systems for tracking infections and variants.'*²²

¹⁸ <https://www.ft.com/content/a4cf97fe-e350-4c31-8837-2fb6b6e47f6e>

¹⁹ <https://www.gov.uk/government/news/5-million-people-in-the-uk-receive-second-dose-of-covid-19-vaccine>

²⁰ https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/public-health/eu-vaccines-strategy_en

²¹ T2RL data using the AOC country of origin for the airline.

²² <https://travelweekly.co.uk/news/air/pm-confirms-traffic-light-plan-for-international-travel>



The CDC (Centers for Disease Control and Prevention) in the US has already announced that fully vaccinated domestic travellers do not need to follow testing procedures unless their destination requires it and there is no need to self-quarantine.²³

For international travel a mixed approach of medical passports with vaccination certificates and testing is set to become the norm. Just as the events of 11 September 2001 drove major changes in the approach to security in airlines and airports, the current pandemic is leading to new requirements being placed on the industry. This in turn will place a burden and subsequent cost on airlines, PSSs, travel agents and GDSs to enable vaccine and testing data to be collected and certified at the time of booking and/or boarding. Even with little traffic airlines are starting to see more resource needed at the airport check-in to deal with manual paper certification checks and the time it takes for boarding. Eventually these costs will need to be passed onto the traveller.

The standards used by airlines in these markets will no doubt set the bar for other global markets and will be enforced across the industry in due course. Based on experience after 9/11 we expect that some new processes will be put in place due to political pressures regardless of any evidence base for their effectiveness. Once implemented it will be almost impossible to remove them so airlines and airports are likely to have costs imposed for an extended period.

T2RL continues to believe there will be little business travel in the next year, even in markets where travel restrictions have been relaxed. Most corporate travel insurance will not provide cover while the outbreak is still categorised as a pandemic, which according to the WHO could continue until the end of 2022²⁴. Companies have a duty of care to their employees and would have significant legal exposure if they were to require them to travel. Additionally, many office staff have been working from home for quite some time and have become accustomed to readily available video conferencing, meaning a lot of travel for meetings is now deemed unessential and costly. Recession, downsizing, new habits and ways of working are now ingrained into society and will consequently suppress demand for business travel.

Airlines operating in these markets in particular will need to focus on leisure demand as a priority in coming months and potentially open new routes and increase capacity for

²³ <https://www.cdc.gov/coronavirus/2019-ncov/travelers/travel-during-covid19.html>

²⁴ <https://www.bbc.co.uk/news/world-53870798>



certain segments. Delta announced nine new routes last month and plans to add more flights to top leisure destinations.²⁵

COVID-Free Markets

COVID-free markets are those countries that have opted for a totally COVID-free approach, reliant on closed borders, strict testing on arrival, quarantine and vigorous contact tracing, for example Australia, New Zealand, Pacific islands and certain Caribbean islands. These markets make up around 2% of International travel.

Inbound travel is expected to be restricted for quite some time until the population is widely vaccinated. Currently borders look set to fully open around Q1 2022 although certain restrictions are likely to remain, including the need for vaccination and testing certificates. Qantas CEO, Alan Joyce, said that 'international air travellers will in future need to prove they have been vaccinated against Covid-19 in order to board Qantas flights' stating the move would be "a necessity" when vaccines are available.²⁶

In the short-term, focus will be put on travel corridors with other 'COVID-free' locations, New Zealand finally announced a travel corridor with Australia to open April 19th with testing but without quarantine restrictions.²⁷ Qantas is also selling flights to Singapore from Australia for October when a travel bubble is expected to open between the two countries. Markets following this strategy are being understandably cautious and timelines may be changed with little warning.

Airlines in these markets will need to be extremely responsive to demand. Hours after New Zealand opened its air bridge with Australia, Air New Zealand announced a new route from Auckland to Hobart, Tasmania, the first airline to fly this route in over two decades.²⁸

²⁵ <https://news.delta.com/summer-travel-your-leisure-delta-connects-customers-20-mountain-beach-and-vacation-destinations-new>

²⁶ <https://www.bbc.co.uk/news/world-australia-55048438>

²⁷ <https://www.theage.com.au/business/companies/airlines-schedule-hundreds-of-nz-flights-but-border-nerves-remain-20210406-p57gxy.html>

²⁸ <https://www.theage.com.au/business/companies/airlines-schedule-hundreds-of-nz-flights-but-border-nerves-remain-20210406-p57gxy.html>

Testing Focused Markets

Testing focused markets for example, China, Korea, Japan and Thailand, have put in place mass testing and contact tracing with isolation and quarantine when outbreaks become apparent. These markets make up around 24% of international travel. They are predominantly in Asia where the rollout of vaccines is taking a while to get under way but testing is widely available.

Markets following this strategy are taking cautious measures to ease quarantine and open borders dependant on negative test results, particularly to encourage business travel and in the case of Japan in time to hold the delayed 2020 Olympic games in the summer of 2021. Singapore and Hong Kong are on the verge of launching an ATB (air traffic bubble) although this has been delayed following a surge of cases in Hong Kong²⁹. Japan also announced the waiving of quarantine for 'qualified' business travellers who have had overseas trips of one week or less³⁰.

In the short-term, focus has been put on domestic travel. China's domestic market had bounced back well until recently and Japan has launched a GoTo campaign to subsidise domestic travel with up to 35% discounts being offered to Japanese home-tourists for hotels and tours³¹

Currently it looks set to be towards the end of 2022 when borders will fully open to International travel in these markets. Until then, airlines will need to be opportunistic. The focus will be on domestic travel and airlines may need to open and market new routes following demand levels closely.

Developing Markets

Developing markets with large populations and where infections are high will find it difficult to vaccinate whole populations quickly due to limited resource. These markets include India and Brazil. Travel here makes up around 18% of the overall international market.

²⁹ <https://www.cnbc.com/2020/12/01/singapore-and-hong-kong-push-back-their-travel-bubble-again-this-time-beyond-2020.html>

³⁰ <https://asia.nikkei.com/Spotlight/Coronavirus/Japan-waives-14-day-quarantine-after-business-trips>

³¹ <https://www.traveldailymedia.com/japan-spring-reopening-2021/>



Inbound travel will take longer to recover as it will be dependent on international visitors being vaccinated, much the same as yellow fever vaccinations are required for entry into certain countries. Although the rate of infections and the ability to be vaccinated will deter some travellers there will still be a limited market demand for some segments including family visits.

Sadly, these markets will have tough decisions to make in the coming months. The economic effects of lockdowns and decrease in tourism income are having devastating effects. Some countries have already opened their borders even though the majority of the population are far from being vaccinated. This is not expected to happen until at least the start of 2023, even as far out as 2025 in some cases and it is not until then that international travel from these markets is expected to pick up.

Airlines in these markets will need to think carefully about their business models and routes served. At the T2RL conference at the end of 2020, Colombian based Avianca CEO, Anko van der Werff stated how after coming out of administration the airline intends to streamline its offer and change business model to a more low-cost strategy.

It is in these markets where we expect the number of active airlines to diminish the most both through bankruptcy and liquidation and through mergers. We also expect to see fewer travel agencies in the market due to bankruptcies and lower demand. Online travel agencies will be under pressure due to the fall in leisure demand and will be competing more than ever with the airline direct channels. Those airlines with a strong domestic market and technological capability may have the ability to encroach on OTA territory. In effect a small number of airlines have an opportunity to become the 'OTA' in their home markets.



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