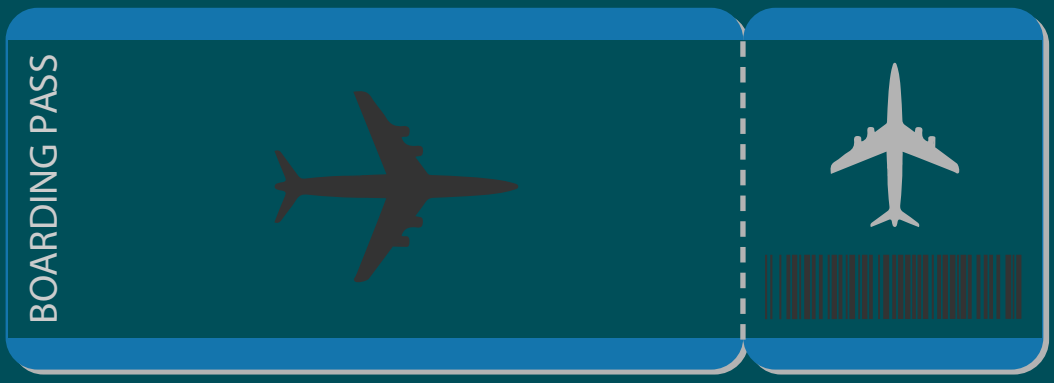
A4E

Study on the impact of online intermediaries on consumers and carriers

FINAL REPORT



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Abbreviations and acronyms

A4E	Airlines for Europe
AI	Artificial intelligence
API	Application Programming Interface
B2B	Business-to-business
B2C	Business-to-consumer
CRS	Computerised Reservation System
EU	European Union
GDS	Global Distribution System
IATA	International Air Transport Association
LCC	Low-cost carrier
MSE	Meta-Search Engine
NDC	New Distribution Capability
OTA	Online Travel Agent
TA	Travel agent
TFEU	Treaty on the Functioning of the European Union
TMC	Travel Management Company
UK	United Kingdom
ULCC	Ultra-low-cost carrier
US	United States

Executive Summary

Background

This summary presents the results of a study by Syntesia Policy & Economics on the subject of online intermediaries in the market for air ticket distribution in the EU. The study was commissioned by Airlines for Europe (A4E) with the cooperation of six of its members – Air France-KLM, easyJet, IAG, Lufthansa Group, Ryanair and Volotea – and conducted in spring 2024.

The backdrop for the study is **profound change in the ecosystem for air ticket distribution**, spurred by quickly evolving technology and business models operating mainly online. These can create opportunities by improving information flows and the match between supply and demand. But rapid change can also disrupt existing arrangements and make oversight more difficult, opening the door to untransparent, misleading and abusive practices that can negatively affect both consumers and airlines. The **purpose of the study** is thus to fill a gap for evidence on the subject by providing insight on (1) the market for air ticket distribution in Europe and (2) the consumer experience in terms of the practices and behaviour of online intermediaries, and their impacts – both positive and negative.

The study focused on the online intermediaries that interact the most directly and extensively with consumers, namely **Online Travel Agents (OTAs)**. To achieve sufficient depth, the study analysed a sample of OTAs, which were selected with a view to their high market share (together covering the vast majority of the EU market) and importance as vendors of tickets for the participating airlines. These were Edreams, Etraveli, Expedia, Kiwi, Lastminute, Onthebeach and Trip.com, in addition to their subsidiaries and cooperation partners. To a certain extent, the study also examined **Meta-Search Engines (MSEs)**, which are companies that allow consumers to search for and compare offers for flight tickets sold by other businesses (either carriers or OTAs).

Two final types of intermediaries were also covered in the study, albeit to a lesser degree because they operate business-to-business (B2B, as opposed to business-to-consumer – B2C) and thus do not interact with consumers directly. These are (1) Global Distribution Systems (GDS), which are companies operating B2B that act as intermediaries between airlines and travel agents – including OTAs – to consolidate travel services and facilitate their sale to consumers; and (2) aggregators and consolidators[1] operating B2B that collect, consolidate, and distribute travel content for sale.

The **methodology for the study** aimed to ensure independence while dealing with the scarcity of publicly available data and need to rely on airlines for key information. This entailed triangulating between evidence gathered through (1) desk research from a wide variety of sources covering the EU and comparable US markets; (2) consultation (on an anonymous basis) with the six participating airlines that collectively cover a large proportion of the European market and are highly diverse in terms of size, business models and geography; and (3) a mystery shopping exercise.

The latter required special care: due to the many factors at play and myriad ways airlines and OTAs structure and present their offers, any attempt to systematically map and compare these offers would have been partial and inconclusive. Instead, **the mystery shopping exercise put the emphasis on the consumer perspective**. By conducting nine case studies – each based on a consumer with a pre-defined profile seeking to book an otherwise identical trip with both designated airlines and OTAs – it was possible to reflect a cross-section of consumer profiles and thereby compare prices and experiences accurately for a wide range of routes, preferences, and ancillary services such as baggage allowance and seat selection. It also allowed for consideration of the role of MSEs in the process. Overall, the **methodology provided ample evidence on the issues of interest and allowed conclusions to be drawn with confidence**, with limitations mitigated to the extent possible and otherwise mentioned transparently.

The market for online air ticket distribution in Europe

To understand the situation consumers and airlines face when it comes to online air ticket distribution, it is first important to grasp some basic features of the market ecosystem in Europe. Across different types of intermediaries and roles in the value chain, this is **characterised by high degrees of concentration and market power**, which in turn creates the conditions for actors to engage in practices that are misleading, abusive and / or unauthorised. The table below provides a brief overview of the markets for OTAs, MSEs and GDS (and the link between the latter and newer aggregators and consolidators), with a view to highlighting their key feature.

1. New Distribution Capability (NDC) aggregators are particularly important in this regard and have been developed based on the standards of the International Air Transport Association (IATA).

Table 1. Overview of intermediary types and key features

Intermediary type	Key features
Online Travel Agents (OTAs)	▸ **Concentrated market** with two players – Etraveli and Edreams-Odigeo, plus their subsidiaries and cooperation partners such as Booking – controlling over half of the EU market, and others playing more niche roles. ▸ The share of trips mediated by OTAs varies a lot by airline, from around 15% to upwards of 35%, with network carriers generally relying more on OTAs than low-cost carriers, which place a higher weight on direct sales to consumers. ▸ OTAs access carriers' content either via direct agreements or aggregators (mainly GDS), or by an unauthorised practice known as 'screen-scraping'. ▸ **Screen-scraping involves using advanced technology to break into carrier databases and make sales without ticketing authority**. This effectively impersonates the consumer, interposing the OTA and breaking the communication link with airlines, paving the way for abuse and other problems. The amount of screen-scraping varies widely and is in constant flux depending on preventive measures by airlines, litigation and evolving relations with airlines. It is especially prevalent among certain OTAs and likely to remain a risk until it is effectively regulated.
Meta-Search Engines (MSEs)	▸ MSEs fall into a range of categories depending on the extent to which they emphasise completeness or price comparison. Business models revolve around a combination of advertising and commissions. ▸ Overall, estimates of the volume of trips mediated by MSEs are in the range of about 10%-20%. ▸ The sector includes a number of large players including Google, Skyscanner, and Kayak as well as smaller firms. Many MSEs have also been acquired by OTAs, **beginning to blur the distinction between categories** and creating risks of bias and conflicts of interest.
Global Distribution Systems (GDS)	▸ GDS use computerised reservation systems to connect airlines with ticket vendors, including travel agents (online and brick-and-mortar) and travel management companies. Their **business model relies on agreements with airlines, which pay fees to GDS providers** for each booking made through their system. ▸ The **GDS market is highly concentrated**, with just three companies – Amadeus, Sabre and Travelport – controlling over 90% of global GDS bookings. Digitalisation is leading to a decreasing market share for GDS, but this still accounts for about 20%-25% of trips in the EU, and a higher share of value due to a strong position in the business travel segment. ▸ The reservation systems of GDS rely on a specific IT framework called EDIFACT. This facilitates real-time interactions between airlines and consumers, but due to technical limitations is **unable to fully handle the complexity of unbundled, dynamic and highly tailored offers** that have become the norm for many airlines. ▸ While the business models of GDS have traditionally relied on being a key gatekeeper for airlines, this role has become less stable as airlines have introduced new ways of connecting to aggregators and consolidators, in particular the above-mentioned **NDC, which better meet technical demands at lower marginal cost**. Nonetheless, GDS' strength in certain segments means that they retain significant market power

The consumer experience

The business models and market dynamics outlined above translate into practices and behaviour that **affect consumers across the entire travel experience**, from initial search and comparison, through finalisation of the offer and booking, the lead up to travel, the travel itself and its aftermath. The study examined these in detail based on the mystery shopping, complemented by feedback from airlines.

Overall, **the results were alarming**. On the positive side, the assessment found that **OTAs have the potential to add value for consumers, by acting as a one-stop shop for travel-related services and complementing airlines' offers**. Their offers typically include comparison services or package holidays, activities and experiences, and ways of bundling them together. By making use of their brands and networks, OTAs can also play a match-making role for certain types of consumers, such as those who lack awareness of the full range of airlines, have complicated travel plans or are especially price conscious and thus keen to compare offers from multiple airlines. For their part, MSEs were generally found to play a useful role in helping consumers to compare offers, without systematic problems concerning prices or other aspects.

However, despite their potential, the study found instead that **OTAs consistently add little value and detract from the consumer experience**. All the OTAs analysed for the study except one presented **significantly higher prices for consumers**, as illustrated below. Table 2 summarises the headline results of the mystery-shopping exercise and makes clear that this dynamic holds regardless of the specifics of each case in terms of fare type (e.g., basic economy, semi-flexible, refundable etc.) and ancillary services (e.g., baggage allowance, seat preference, insurance). On average, **OTA prices for like-vs-like itineraries were found to be nearly 25% higher than airlines**, a finding that is also in line with large-scale analysis conducted by airlines. Though individual cases vary in a way that would make straightforward comparison difficult, in general **ancillary services account for a large part of the price differences**, since OTAs tend to mark these up at a high rate. Note that flight itineraries and airline-OTA 'pairs' were chosen without prejudice to any commercial agreements between certain airlines and OTAs, which are likely to explain the one case where the OTA price was cheaper.

Table 2. Mystery shopping – overall price comparison, prices in €

#	Itinerary	OTA	Airline price	OTA price	Difference	
1	BLQ-OLB; 1 adult, 1 child	Gotogate	228	339	**49%**	**OTAs >30% more expensive**
2	CDG-AJA; 1 adult, 1 child	Edreams	167	248	**49%**	
3	BLQ-BSL; 1 adult	Mytrip	158	211	**34%**	
4	BLQ-BCN; 1 adult	Opodo	179	240	**34%**	
5	BRI-BIO; 1 adult	Kiwi	175	216	**24%**	**OTAs 10%-30% more expensive**
6	CRL-ARN; 1 adult	Kiwi	107	129	**20%**	
7	FRA-DBV; 1 adult	Tix	556	625	**12%**	
8	ORY-BER; 1 adult	Expedia	145	150	**3%**	**Airline and OTA prices comparable**
9	BFS-NCE; 2 adults	Expedia	692	599	**-13%**	
				Average price difference	**23%**	

Source: Mystery shopping exercise by the study team; note that to facilitate comparison the exercise sought fares and ancillary services that were as similar as possible between airlines and OTAs, but that these often differed slightly.

Of course, **charging more for the same service is not a winning proposition if conveyed transparently**. To retain consumers despite higher prices, the study found that **nearly all OTAs in the scope engage in a range of untransparent, misleading, abusive and (in some cases) unauthorised practices**. These permeate the entire customer journey, from initial search and comparison, through finalisation of the offer and booking, to the lead up to travel, the travel itself and its aftermath. .

Practices differ depending on the OTA and itinerary in question, and are less likely among OTAs that have agreements with airlines. Nonetheless, **several problems were found to be widespread**, including:

- Opaque mark-ups and charges that consumers are wrongly led to believe come from airlines,
- Confusing and untransparent displays of offers,
- Misleading promotion of loyalty schemes,
- 'Locking in' consumers by making them invest time and effort in the booking process (usually by requiring the inputting of personal details) that would be lost if they pursued another offer,
- 'Bait and switch' tactics that entice consumers with initially low fares, but then overcharge during the booking process for ancillary services, e.g., baggage and seat selection and / or charge for services (like the use of certain payment methods) that are free with airlines,
- Unclear and confusingly named pricing schemes,
- Offering (for a fee) services that airlines provide for free (e.g., SMS updates),
- Misleading titles (e.g., 'standard') for services that are more expensive than the cheapest option.

Airlines also reported a number of **other bad practices related to disrupted communication flows between airlines and consumers**. These are **more prevalent among OTAs engaging in screen-scraping** (since this completely severs the communication link), but also occur among other OTAs to certain extent. Such practices include withholding or appropriating / part-appropriating refunds (a practice enabled by the OTA frequently using its own means of payment to purchase tickets), failing to provide consumers with information on delays, gate changes or cancellations (which can cause major inconvenience and other knock-on effects). Some OTAs also use passenger data to offer unauthorised 'automatic' check-in services, whereby the OTA checks in on behalf of the consumer and generates a boarding pass (which may be with the OTA's own brand), violating security protocol and risking disruption.

In summary, the study concludes that, while OTAs can add value by acting as a one-stop shop for travel-related services, this is rarely the case. Instead, OTAs – which operate in a highly concentrated market - were found to charge more than airlines for tickets and ancillary services while engaging in a series of practices that are untransparent, misleading, abusive and – in some cases – unauthorised. As a consequence, **OTAs are failing to meet the bar that consumers should expect** and leading to a travel experience that is far from ideal.

1. Introduction

1.1 Study purpose and scope

This document is the report of a study by Syntesia Policy & Economics on the subject of online intermediaries in the market for air ticket distribution. The study was commissioned by Airlines for Europe (A4E) with the cooperation of six of its members, namely Air France-KLM, easyJet, IAG, Lufthansa Group, Ryanair and Volotea, and conducted in spring 2024.

The backdrop for the study is **profound change in the ecosystem for air ticket distribution**. Evolving technology and market conditions are blurring the lines between different types of actors and allowing new business models to emerge, many of these involving **intermediaries that operate mainly online**. These can create opportunities by improving information flows and the match between supply and demand. But rapid change can also disrupt existing arrangements and make oversight more difficult, opening the door to untransparent, misleading and abusive practices. However, the limited nature of existing research on online intermediaries means that their behaviour and implications for consumers and market functioning are not fully understood.

The **purpose of this study** is thus to increase the evidence base by providing insight on the market landscape and the practices of online intermediaries, and thereby shed light on their impacts for consumers and carriers – both positive and negative. The study looks at these from two perspectives, each of which forms a chapter of the report, with conclusions drawn at the end of each chapter:

- **Chapter 2 – The market for air ticket distribution in Europe**: provides the underlying context by describing the different types of actors on the market, and analysing their business models, ways of working and recent trends;
- **Chapter 3 – The consumer experience**: examines the practices and behaviour of intermediaries – particularly Online Travel Agents (OTAs) – with a view to identifying impacts both positive and negative, and shedding light on the prevalence and magnitude of untransparent, misleading and / or abusive practices, and examining why and how they persist;

The **scope of the study** covers several types of online intermediaries, with the main priority being **OTAs**, i.e., companies that act as vendors for users wishing to search for and purchase flight tickets, as well as related and (in some cases) other services. To achieve sufficient depth, the study analysed a sample of OTAs, which were selected with a view to their high market share (together covering the vast majority of the EU market) and importance as vendors of tickets for the participating airlines:

- Edreams, including subsidiaries Go Voyages, Opodo and Travelink;
- Etraveli, including subsidiaries Gotogate, Flight Network and Seat 24, and cooperation partners Booking.com, Kayak and Priceline;
- Expedia, including subsidiaries CheapTickets, Orbitz and Travelocity;
- Kiwi;
- Lastminute, including subsidiaries Bravofly, Rumbo and Volagratis;
- Onthebeach; and
- Trip.com, including subsidiaries Travix, Ctrip and Qunar.

Beyond OTAs, the assessment examines another type of intermediary, called **Meta-Search Engines (MSEs)** to a certain extent. These are companies that allow consumers to search for and compare offers for flight tickets sold by other businesses (either carriers or OTAs). Two final types of intermediaries are also covered in the study, albeit to a lesser degree because they are business-to-business (B2B, as opposed to business-to-consumer – B2C) in nature and do not interact with consumers directly, namely:

- **Global Distribution Systems (GDS)**: companies operating B2B that act as intermediaries between airlines and travel agents – including OTAs – to consolidate travel services and facilitate their sale to consumers.

- **Aggregators and consolidators** operating B2B that collect, consolidate, and distribute travel content for sale based. Such actors working with the International Air Transport Association's (IATA)[2] standards, namely New Distribution Capacity (NDC) aggregators, are especially important, but some airlines also connect using their own interface.

1.2 Methodology

To devise an appropriate methodology, the study team needed to grapple with two related challenges. On the one hand, the base of publicly available evidence was limited, meaning that the study would need to rely on input from airlines. On the other hand, airlines have 'skin in the game', creating a risk of bias. This led to an **approach based on triangulation**, whereby data on the issues of interest was gathered from different sources, then weighed for consistency to arrive at robust and reliable conclusions. Three methods were employed:

- **Desk research**: significant information was already available in the form of academic studies, reports from companies, consultancies and government authorities, position papers and newspaper articles, focused on the EU and comparable US market. While not comprehensive, this existing secondary data provided baseline knowledge on the market landscape and recent trends and developments. The sources accessed are listed in Annex A.
- **Consultation with airlines**: as market participants directly working with and affected by online intermediaries, airlines possess unique insight on the ticket distribution ecosystem, practices and their effects. This was collected systematically from the six participating airlines mentioned above, using a combination of a written contributions and interviews (see questionnaire in Annex B) that covered all aspects of interest for the study. As part of this, several measures were taken to minimise bias. First, it was possible to secure participation from a sample of airlines that covers a large proportion of the European market and is highly diverse in terms of size, business model (e.g., low-cost versus network carriers) and geography. Second, the questions were framed so as to obtain factual (in many cases quantitative) information, with subjective opinions playing only a complementary role. Third, responses were anonymous; airlines provided their input directly and exclusively to the study team, which was then aggregated and anonymised for the purpose of the analysis. This means that airline representatives could provide complete and unvarnished input without concern for commercial or political sensitivity. Measures to preserve anonymity, such as the use of ranges rather than precise figures, have been taken been taken throughout the report.
- **Mystery shopping**: finally, empirical observation was used to gather more in-depth insight on the consumer experience, and to corroborate the evidence provided by airlines. This entailed a mystery shopping exercise to compare prices and other aspects across a range of OTAs.. This element required special care: due to the many factors at play and myriad ways airlines and OTAs structure and present their offers, any attempt to systematically map and compare these offers would have been partial and inconclusive. Instead, **the mystery shopping exercise put the emphasis on the consumer perspective**. By conducting nine case studies – each based on a consumer with a pre-defined profile seeking to book an otherwise identical trip with both designated airlines and OTAs – it was possible to reflect a cross-section of consumer profiles and thereby compare prices and experiences accurately for a wide range of routes, preferences, and ancillary services such as baggage allowance and seat selection. The mystery shopping also included consideration of the role of MSEs in the process. Four of the case studies were hypothetical, meaning that they stopped when payment was required; the other five included full purchases to allow for examination of certain aspects that are only possible at that stage (e.g., date changes, additional baggage). Despite the limited number of cases, purposive sampling ensured that the findings were objective, while their validity is also bolstered by their consistency with the results of larger exercises conducted by participating airlines and provided to the study team. An overview of the case study sample and key parameters is provided in Annex C.

Overall, the approach provided ample evidence on the issues of interest, and allowed conclusions to be drawn with confidence. That it should be borne in mind when reading the results that the scope and

2. NDC is a set of XML-based data transmission standards developed by IATA to enable airlines to distribute their content more effectively to travel agents and third-party distributors.

resources of the study did not allow for feedback directly from online intermediaries themselves, who could have been expected to provide additional insight. **This limitation has been mitigated to the extent possible** by triangulating between evidence from different sources, including multiple airlines and the empirical observations of the study team. As mentioned, the study as a whole and the mystery shopping exercise covered the majority of the European OTA market, including not only OTAs for which problems have been frequently experienced but also one (i.e., Expedia) considered 'best in class'. The report is also transparent about the basis and level of confidence of the findings, using caveats and ranges where needed so that specific limitations are clear.

2. The market for air ticket distribution in Europe

2.1 Overview

Digitalisation and the advent of the internet, together with the possibility of making payments online, have brought significant changes to the market for air ticket distribution, revolutionising the way these are bought and sold [3]. Most of the B2C market is now catered by airlines directly selling tickets online to travellers themselves through their **own websites and mobile apps** (also known as direct distribution). This has allowed substantial cost savings for consumers, as no intermediary fees are due on autonomous purchases. It has also fuelled the emergence of popular low-cost (LCC) and ultra-low-cost carriers (ULCC), whose business models[4] rely on disintermediating the traditional air ticket distribution system.

Irrespective of the type of airline, with direct distribution air tickets have become more affordable for an increasing share of the population. This has been a boon for consumer welfare [5] and made air travel accessible to an increasingly large share of the population. Just before the Covid pandemic in 2019, more than 1.1 billion air trips took place in the EU, the most ever, with a major economic impact on tourism. In contrast, when air tickets were mainly sold through brick-and-mortar travel agents (TA), related distribution costs represented the second largest source of external costs after fuel for many airlines, exceeding 15% of their total operational expenditure.[6]

Digitalisation has also greatly **facilitated direct communication with consumers**, enabling airlines to personalise marketing offers and **unbundle ancillary services** on a need basis, such as fees for checked baggage, seat selection, in-flight meals and other onboard services, thereby increasing convenience for consumers. For instance, in addition to obviating the need for passengers to cross-subsidise each other, the introduction of baggage fees appears not only to have decreased overall fares[7], but also to have reduced mishandled bags and departure delays, serving to reduce costs and lower fares yet further. Digitalisation has also improved the consumer experience, since airlines can now provide support services directly

3. For a review of how the air ticket distribution system historically evolved see Edelman, B. (2009) "Distribution at American Airlines (A)", Harvard Business School Case 9-909-035, June 22, 2009.
4. Low-cost carriers represent a business model that lowers ticket prices by cutting costs on customer service, distribution, and optimising fleet utilisation. Southwest Airlines first introduced the low-cost concept in the early 70s. Companies like Ryanair, easyJet, and others were inspired by that example and refined the LCC business model over time. LCCs offer unbundled services and charge additional fees for ancillaries. For a long time, most budget airlines operated between secondary airports working on short-haul flights only. Now, ultra-low-cost and hybrid carriers (e.g., Hop! by Air France and Eurowings by Lufthansa) have appeared on the market and some LCC have even started offering long-haul opportunities across the Atlantic and bundled services.
5. In the US market, which is comparable to the EU, a 60% increase in total consumer welfare has been reported in the 1998-2022 period. See. Rupp N, Van Kuiken D. and Williams J. Turbulent Times: The Airline Industry 1998-2022. Working paper 2023. Broadly comparable figures can be expected in the EU.
6. It was found in the US, but patterns in the EU should not be dissimilar, that in terms of the share of total operational expenditures for airlines, booking and marketing costs represented around 4% of airlines operational expenditures in 2017 which represented a steady decline from the early 1990s when it was four times higher. S. Borko, "Why Airlines Are Finally Seeing Lower Distribution Costs Skift Research" 2018.
7. See Brueckner J, Lee D., Picard P. and Singer E., Product Unbundling in the Travel Industry: The Economics of Airline Bag fees, Journal of Economics & Management Strategy, 24(3), 2015. Nicolae M., Arikan, M, Desphande V and Ferguson M. Do Bags Fly Free? An Empirical Analysis of the Economic Implications of Airline Baggage Fees. Management Science, 63(10), 2017. U.S. Government Accounting Officer, Commercial Aviation – Consumers could benefit from better information about airline-imposed fees and refundability of Government-imposed taxes and fees. GAO-10-785. https://www.gao.gove/new items/d10785.pdf

to passengers, and better design and implement consumer loyalty programmes.

Airlines have approached these unbundling possibilities in different ways, which translate into highly variable shares of their total revenue. According to publicly available data [8], these can vary overall from approximately 10% to 50% with ULCC and LCC lying on the upper range of the distribution; baggage fees alone are now deemed to account for from less than 5% to over 25% of airline revenue. Regardless of business model, the trend is upwards: since 2010 the importance of ancillary services as a source of income for European airlines has increased by more than three times.[9]

The market trends give airlines every incentive to sell ancillaries directly to consumers, especially considering that the business of ticket distribution has traditionally been dominated by **Global Distribution Systems (GDS)**. These are intermediaries that use computerised reservation systems to connect airlines with both brick-and-mortar and online ticket vendors, acting as wholesalers. **Just three companies – Amadeus, Travelport and Sabre – have long operated as an oligopoly**, enabling high fees to airlines and a reliance on technology that has become outdated, creating opportunities for disruption (see more detail on GDS in section 2.4 below).

Recently, **digitalisation has been upending the system**, leading to a much blurrier market in both the B2B and B2C segments, with many operators active across both segments and acting in multiple capacities. This trend of rapid transformation still continues and now includes newly established B2B2C business models and providers of cloud technology travel-as-a-service businesses. At the B2B level, GDS have increasingly specialised in the **corporate market and catering to the high-value demand of TMCs** arranging flights for their business clients.

Against this backdrop, an important new entrant has been the **New Distribution Capability (NDC)** data exchange digital standard. This is an IATA initiative launched to create APIs[10] that follow a standard data scheme, which is driving major disruption by competing with the standard used by GDS[11] in the supply of tickets to the 30,000 or so brick-and-mortar TAs still operating in the EU, as well as of tour operators and travel package organisers. In addition, some airlines – mainly LCCs – also use APIs outside the NDC standard to connect to consolidators and aggregators without GDS.

More specifically, by defining a common API standard, **NDC has enabled new business models** for network carriers and linked more airlines with ticket retailers. **Direct Connect** systems allow airlines to offer booking capabilities directly to retail travel agents by means of their own API, bypassing GDS and thereby avoiding booking fees. Some airlines have also replicated the NDC concept by means of open-source mechanisms whose rationale is broadly similar. Direct Connect, however, represents a significant capital expenditure which might deter smaller and medium-sized airlines, while TAs might face barriers in expanding their range of connections. The NDC model has therefore facilitated the rise of many **new content aggregators** (over 75 according to one airline), companies that pull together travel information provided by airlines and distribute it to TAs, allowing bookings to be made directly through these systems at a significantly lower cost for the airlines than bookings made via a GDS and reducing concentration in the intermediary market. GDS have responded to this growing trend by entering the market as NDC content aggregators themselves.

NDC allows the ability to provide more detailed product offerings and to customise travel experiences more efficiently for consumers and also enables the key feature of **continuous pricing**. Indeed, digitalisation has led to much more flexible pricing models whereby airlines can devise algorithms to continuously adjust prices in real-time. This has created the preconditions for airlines to pursue increasingly sophisticated revenue and occupancy maximisation strategies by means of dynamic pricing models that base fares on variance of demand, competitor pricing, seasonality, and price sensitivity to increase the load rate and

8. See IdeaWorksCompany.com 2023 CarTrawler Yearbook of Ancillary Revenue – Report. Various years.
9. Ibid.
10. An API, or Application Programming Interface, is a set of rules, protocols, and tools that allows different software applications to communicate and interact with each other. It defines the methods and data formats that developers can use to request and exchange information between their applications and external services or systems. They enable developers to access the functionality of other applications or services without needing to understand their internal workings. Instead, they can make requests to the API, acting as an intermediary, handling the communication and providing the necessary data or functionality in a standardised format.
11. This is called EDIFACT, or "the United Nationals rules for Electronic Data Interchange for Administration, Commerce and Transport" is a framework comprised of standards, directories and guidelines for the exchange of structured data between computer systems. It is used by a range of public and private actors, including in air ticket distribution. More information can be found on the website of the UN Economic Commission for Europe at Introducing UN/EDIFACT | UNECE.

therefore further reduce costs. On their side, consumers benefit from smoother price changes as they are no longer subject to sudden jumps when a fare class is fully booked. Continuous pricing also encourages consumers to monitor and compare prices over time in order to get the best deal.

This emphasis on price has greatly contributed to shape the features of the newly emerged online B2C ticket distribution ecosystem and given rise to the disruptive[12] appearance of **Online Travel Agents (OTAs)**. These broadly replicate the services of brick-and-mortar counterparts, although at a much more concentrated level and usually on a much larger geographical scale. OTAs typically cater to the mass leisure low-fare market but have also benefited from unmanaged corporate travel, where many companies let their employees book business travel directly on the OTAs. Their modus operandi is characterised by putting an emphasis on comparison tools that allow consumers to easily compare prices, flight times and other relevant factors to steer their choices. That said, as discussed in detail in chapter 3, such comparisons can also be misleading because 'true' prices to be paid are often not revealed until late in the booking process. Moreover, because of the size and market power of some OTAs, they do not necessarily reserve their tickets through GDS, but also directly seek mutually beneficial commercial agreements with airlines.

At the same time, this creates a **concern that OTAs could end up with similar market power as GDS**, leading some airlines – especially LCCs – to restrict distribution to their own websites, except in special cases. For example, according to interviewees for the study, since the mid-2000s some LCCs have started to allow their tickets to be distributed through GDS, but generally only through brick-and-mortar TAs rather than OTAs. Another sticking point is when OTAs act as the main point of contact for consumers, since this allows them to extract more value from ancillary services. Indeed, many OTAs sell the ticket component for a lower price than airlines but overcharge on ancillaries, or at times even invent ancillaries that were not envisaged by the carrier in the first place (as discussed in greater detail in chapter 3).

As part of an effort to circumvent the terms and conditions of airlines, some OTAs use technology to get unauthorised access to the carriers' databases by pretending to be individual travellers, a highly controversial practice from a legal viewpoint called **'screen-scraping'**. Through this practice (described in more detail in section 2.2), OTAs are able both to retain traveller contact details and other data as confidential and to alter the structure of ticket prices, at times even radically, generating a markup to the detriment of consumers, who may not know that they are paying more than the same ticket would cost directly from an airline.

To meet the same strong demand for comparative price information, **Metasearch Engines (MSEs)** have also appeared in the new ecosystem. These market operators that are not travel agents but rather specialise in facilitating price comparison by displaying fares from multiple sources simultaneously and redirecting traffic to the chosen vendor. However, the **distinction between OTA and MSE has become increasingly blurred**. Many OTAs have incorporated metasearch functionality into their platforms, allowing users to compare prices across multiple sites without leaving the OTA website (though as mentioned above these prices can be misleading). MSEs have started offering direct booking options, at times even in agreement with airlines, allowing users to complete their bookings without being redirected to external websites. This integration of booking functionality within MSEs makes them resemble OTAs more closely, although when redirected through an MSE the airline remains responsible for the complete order. Others have started acting as flight aggregators for the B2B market and offer a single API or portal through which companies can book inventory. Examples of this are Travelfusion or Kayak for business [13]. Conversely, some GDS, e.g., Amadeus, have started offering their own MSE service solutions.

To sum up, the air ticket distribution ecosystem is developing fast within the framework of **a web of interrelated market trends**. On the one hand airlines have been increasingly focusing on direct distribution channels, aiming to reduce dependency on third-party intermediaries like GDS and OTAs. **LCC and ULCC** based on direct distribution channels have been increasingly gaining ground until reaching an estimated one third of all flights

12. To get a feeling of how sudden this change was in the US market that was the most quickly disrupted, it suffices to mention that as late as in 1990s, the brick-and-mortar travel agents sold over three quarters of all airline tickets; with the remaining 25 percent retailed directly by the airline operated call centers. By 2002, online travel agents had already captured about 15 percent of the U.S. market from brick-and-mortar agents. It was estimated that in 2005 online travel agents had acquired over 25 percent U.S. market share in the airline ticket distribution industry; the airlines had mainly cannibalised their own direct channels and still sold a quarter of all tickets, but this time primarily via their web sites only. See Online Travel Gets Personal, Forbes.com, 2006

13. Both being commonly described as MSEs, cf. Travelfusion - Company Profile - Tracxn and KAYAK - Company Profile - Tracxn.

in the EU[14] and have become of interest also to corporate travellers, driving corporate demand towards NDC. The unbundling of fares into sales of ancillary services has kept growing and remains another key force behind NDC uptake. **NDC** have been increasing their share of total bookings towards the IATA-targeted total of 20% by 2020 – though according to interviewees this has been reached by very few airlines yet - and is projected to keep growing despite initial resistance from GDS to abandoning their traditional proprietary platforms. Both airlines and travel agencies are investing in mobile-friendly platforms and self-service features to streamline the booking process, provide real-time updates, and enhance the overall travel experience. These patterns of fierce competition between the various players are taking place in a context where at the same time collaboration and partnerships are becoming more prevalent as strategic alliances, commercial agreements, and API integrations enable seamless connectivity and interoperability across the distribution ecosystem and in turn can provide competitive advantages.

2.2 Online Travel Agents

Composition and market share

The OTA market in Europe is **highly concentrated and composed of a handful multi-brand operators active EU-wide**, three of which can be considered as global players with substantial market shares in all world regions: Etraveli a Scandinavian OTA acting also as content provider for Booking.com[15], Expedia and Trip.com and three others with a more specific European dimension, namely Edreams-ODIGEO, Lastminute.com and Kiwi.com. A subset of market players typically targets the holiday package market, such as for instance Onthebeach.com or Loveholidays in the UK, or have a more national/regional specialisation such as Esky. Of these, Etraveli and Edreams-Odigeo dominate the European market.

As the technology to operate an OTA has become more accessible, the core set of traditional well-established players has been complemented **by several much smaller companies**. These are either locally focused, exploiting knowledge of national markets, currency or payment systems, target niche consumers that **remain poorly known to airlines themselves**. Estimates suggest that in 2023 there were at least some 100 small OTAs in the market.

Analysis of OTA sales, market share and market positions is made difficult by lack of homogeneous and comparable sources[16] and fundamental uncertainty among airlines about the scope of OTA operations. The uncertainty particularly concerns new players are concerned and the scale of airlines' own online passenger sales. By triangulating[17] between different sources, in 2023 **OTA-mediated flight bookings in the EU can be estimated at some 20%-25% of total** trips (with a varied range of responses depending on the nature of the airline of approximately 15%-35%)[18].

This broadly corresponds to an **annual intermediated value at the point of sale in the region of €30 bn** if OTAs' own reference values are used and ancillaries are also included. This is tantamount to some 25%-50% of the total own direct online market in terms of volumes depending on the type of carrier. For full-service carriers in particular, these market shares in terms of volume can be ca 40% higher than in terms of market value,

14. Cf. EUROCONTROL Data Snapshot #34 | EUROCONTROL.
15. Booking.com, formerly the largest accommodation-only business in the world, launched its own OTA flight branch in 2019 in partnership with Etraveli, and the two parties have extended their collaboration through 2028. Booking has also been designated as a 'digital gatekeeper' by the European Commission, while its proposed merger with Etraveli was blocked, highlighting its significant and and growing market power.
16. Two players Etraveli and Kiwi are private companies. Phocuswright market data provider does not consider the EU as such but aggregate the six largest European markets (Germany, France, Italy, Spain, Scandinavia) including the UK, IATA data have limitations as to LCC coverage and OTAs themselves have recently made conflicting claims on who the market leader outside of China is not only in terms of bookings processed but also of related revenue as the two do not coincide. See in this interview Etraveli's CEO challenging the Edream-ODIGEO claim made in their financial report of being the largest flight seller outside of China. https://skift.com/2023/10/03/after-booking-deal-went-bust-etraveli-ceo-says-price-no-longer-in-play/
17. Authors' own elaborations based on extrapolation from different miscellaneous sources (financial reports, websites, IATA sources, company estimates, interviews etc.). Data include a component of subjective estimates and are therefore merely indicative also because they have been harmonised under the assumption that every booking is on average composed of 2.25 segments in line with similar estimates made for the Commission.
18. The estimate uses a broad definition of OTA that includes pure OTAs as well as companies active in dynamic travel packaging and small-scale hybrid/online TA operators unlisted as IATA distributors, as well as the ca 5% of trips that airlines estimate are sold through unrecorded screen-scraping.

as OTAs typically compete on the low-fare segment of the market.

Bearing in mind the limitations mentioned above on the lack of consensus on a clear definition of the OTA market and an inevitable degree of approximation, the resulting market structure would be composed of **two large players** (Etraveli and Edreams-Odigeo) **controlling together at least some 50-55% of the "core" flight OTA market**[19] **in Europe**, and the four remaining smaller operators retaining together another 30-35% market share. This implies considerable variation in the estimate of the "other operators" component that under different scenarios can vary from about 10%-20% of the total, reflecting prevailing uncertainty about the weight of these "greyer" and lesser-known operators. Under these estimates, the EU OTA market is slightly less developed than the United States, which can be partly explained by the fact that Germany, the largest EU market, has lagged in transitioning from offline to online distribution.

Relations and agreements with airlines

OTAs can get **authorised access to many carriers' content** either via traditional GDS, more recent NDC flight / content aggregators, or **direct distribution agreements**. Direct agreements with carriers may either simply confer OTAs ticketing authority or comprise commercial and promotional aspects and offer incentives based on volumes, growth rates, fares, and sales of ancillaries. Direct agreements provide one of the few instances where OTAs may operate at a discount on airline prices outside of cross-subsidisation, although this typically concerns travel packagers and then flights appear to have been re-sold.

The airline propensity to enter agreements with OTA depends on several factors such as the business model of the carrier, its autonomous capability to reach out to the target audiences OTAs cater to, airline NDC capabilities and related support investments, as well as overall compatibility with the business model of the OTA.

As a rule, **LCC have been more reluctant to enter agreements with OTAs**, as they more directly compete on the low-fare segment of the market. These airlines prefer their own websites and rarely establish individual connections with big online travel agencies. In the absence of such connections, travellers can book tickets after being redirected to the airline's website, as if the OTA were an MSEs. Some LCC, in fact, do have this type of agreements with MSE. This allows LCCs to control the customer flow, gather data for analysis, and use their own ancillary selling methods, in turn helping to fine-tune and personalise offers over time.

Alternatively, LCCs sometimes establish agreements with OTAs that are also **providers of travel packages**, because their tickets are bundled with accommodation, rendering less salient the issue of who exerts control on personalised offers and discounts on distressed inventory. At any rate, the sharing of traveller information and adherence to the airline's pricing structure are usually red lines for entering an agreement with OTAs.

Other carriers are more willing to capitalise on the strengths of OTAs and see them as digital partners, experts on ecommerce with strong technical capabilities that can quickly adapt to market changes and trends and develop new digital functionalities (e.g., different payment methods, AI content, rich content etc.). From this perspective, OTAs can be seen as helping to reach new markets, deal with new currencies, or develop new products (such as virtual interline). When agreements are possible, **OTAs are leaders in NDC adoption** and direct connections with them can account for half of the NDC market, according to feedback from airlines. They can be very good at marketing and upselling bundled offers and promoting ancillary sales. Some OTAs are also improving their targeting capabilities, which leads to more effective marketing/tactical campaigns, though this is not yet true for most players.

As discussed in chapter 3, it remains a common OTA practice to use artificially low fares as click bait (a practice that some airlines reported as prevalent when comparing prices using MSEs), then apply untransparent and significant markups (including through administrative fees, more expensive ancillary services etc.) without specifying these have their own mark-ups. They can also hide price breakdowns to attract consumers or offer discounts

19. The UK Competition and Markets Authority has, in its review of the Etraveli Booking.com merger, attributed substantial market shares in the OTA market to UK tour operators, thereby subscribing to a less strict definition of the relevant market for its competition assessment purposes. https://assets.publishing.service.gov.uk/media/6363e1dce90e0705a2e5b21c/Booking_Etraveli_-_Full_text_decision.pdf Details on Commission estimates are not available, as the relevant Commission decision has not been published yet.

that are only available with rarely used cards or forms of payment. Price jumps up during the booking flow or different to what was initially offered on an MSE are also reported by airlines, together with not disclosing fare rules. In certain cases, OTAs active in the travel packaging business were found reselling charter flights, and group bookings appearing / being resold.

As a result of these variables, the patterns of agreement in place with OTA among European airlines is highly diverse and **can range from nil to several dozen per airline**. This can vary also within the same group, and it should not be taken for granted that airlines belonging to the same group share the same agreements with OTAs, as these can be negotiated at the airline rather than group level to better tailor agreements to the market specificities.

In aggregate terms it can be estimated that **official distribution channels account for some 55%-60 of OTA-managed trips**, with over 60% of these managed by means of direct agreements with airlines and another 40% or so through indirect distribution channels, with relative importance varying by airline. For network carriers, OTA reliance on traditional GDS can reach around up to 5% of total trips. Then this can be variously complemented or fully substituted by another 5%-10% from either NDC or flight aggregators. In particular, smaller LCC that are difficult to reach via GDS and do not have sufficient capacity to afford NDC have become the target of flight aggregators like Amadeus' Pyton, Travelfusion and Momondo; indeed, Travelfusion appears as possibly the reference LCC aggregator in the European market.

One of the main difficulties OTAs used to have mainly (but not exclusively) with LCCs related to the availability of low-fare tickets. LCCs have traditionally focused on selling tickets directly through their own websites to keep down distribution costs. However, as they have started to distribute flights through GDS (particularly when the latter have acquired an NDC capacity compatible with LCC offers), they have often imposed **restrictions that limit distribution to 'brick and mortar' travel agents aimed at corporate clients, excluding OTAs** that risk cannibalising their mass leisure business. Part of the strategy for business travel has also included agreements with OTAs for some LCCs. However, the equilibrium remains unstable and some OTAs find it difficult to stick to the agreed terms and resort to unauthorised practices that render the agreements null and void.

Screen-scraping

Normally, the ability of an OTA to display flight schedules, prices and other information depends on the approval of the airline, either through a contractual agreement or a looser arrangement whereby the OTA is granted 'ticketing authority'. This ensures that tickets are sold in accordance with the terms and conditions of airlines, and avoids any ambiguity concerning the specifics of a transaction. However, not all OTAs have the ticket authority of all airlines. Some airlines may choose for commercial reasons only to make their fares available via direct channels or certain OTAs, or airlines may withdraw ticketing authority from OTAs that have been observed in violation of their terms.

When OTAs offer tickets without an agreement or ticketing authority from an airline or intermediation from GDS or flight aggregators, this often depends on **'screen scraping'**. As mentioned above, screen-scraping uses technology to – unbeknown to consumers – violate airlines' terms and conditions, in order to access airline databases at scale and display the information to consumers. The OTA then purchases tickets and ancillary services on behalf of the consumer, in effect impersonating them..

Screen-scraping is deemed unlawful by many airlines and thus has led to complaints and legal disputes[20] , as well as harming the traveller experience (as discussed in section 3.33). This situation highlights a tension between the distribution strategies of airlines (particularly LCCs, which work less with OTAs) and the business models of OTAs, creating challenges in how OTAs access and offer low-fare flights to consumers.

Companies' own estimates and comparison with available OTA figures would indicate that, despite countermeasures and increased agreements with OTAs, screen-scraping remains prevalent, **accounting for about 40-45% of OTA content on average** in 2023. However, estimates ranged widely from less than 10% to over 90% depending on airlines' relations with OTAs and approaches to

20. Reasons for these include the fact that this practice involves use of bots mimicking human behaviour, circumvents security systems, and causes huge increase in web traffic in airline websites (in turn triggering higher IT costs and at times brownouts and blackouts). Ryanair has been particularly active in pursuing legal action, as shown inter alia in its 2021 Annual Report (pages 93 and 149), cf. FINAL_Ryanair-Holdings-plc-Annual-Report-FY21.pdf.

distribution. Similar variation would apply to OTAs themselves, whereby operators for which screen scraping accounts for less than 20% or even 10% of content coexist with others where over 70% and possibly close to 90% of their bookings appear likely to have been made in 2023 thanks to this borderline technique. This wide spectrum depends on the nature and size, business model and strategic orientation of individual OTAs, which all vary substantially among the largest OTAs.

Some airlines have invested heavily in combatting screen-scraping by such measures as investing heavily in technological barriers, initiating litigation and raising concerns with regulators – all of which increase incentives for OTAs to curb unauthorised activity. However, other airlines lack the resources to enact such strategies, meaning that it is **likely to remain a risk until it is effectively regulated**. This risk is especially pronounced among new entrants to the OTA market and airlines that lack the resources to take expensive preventive measure.

OTA business models and strategies

OTA have pursued marketing strategies based on consumer loyalty and one-stop shopping. Traditionally, they have sought **two main sources of service-related competitive advantages** in their proposition apart from heavily investing in marketing, seamless connectivity, and web visibility, which usually requires managing multiple brands in different national markets. More specifically:

1. **Massive processing capacity**: this multiplies the number of searches and itineraries possible and thereby the possibilities for attractive offers for consumers. However, this inadvertently increases the computational costs for airlines that are associated with each additional booking. Some airlines are reportedly struggling to achieve a target of one real booking every 500 million searches and limit costs;
2. **Repackaging of offers**: by finding ways to dissemble and reassemble airline offers, OTAs can propose a broader array of options, such as outgoing and return flights and / or connections combining different carriers. While potentially convenient, in some cases these violate carriers' terms of carriage and can lead to problem and confusion, such as when an outgoing fight is too late for the passenger to catch an unsupported connection.

To improve profitability and growth prospects, most OTAs have been **diversifying away from the flight segment more** and more into the lucrative markets for accommodation and other non-flight related services. Examples are provided in the Box A. In parallel, some airlines have been doing the same and expanded the provision of their ancillary services to insurance, car rental and travel accommodation thereby increasingly overlapping and competing with OTAs.

This is taking place in an environment where **all online operators are competing fiercely for travellers' attention, web traffic and long-term client retention**, which means increasing use of mobile apps and other incentives. To deal with these challenges, OTAs have been expanding their reach and capabilities through partnerships and acquisitions. For instance, some OTAs have acquired MSEs or formed partnerships with them, leading to a merging of functionalities and blurring the lines between the two types of platforms.. Some OTAs have started acting as tour operators providing travel packages, while integration with GDS is now less evident. GDS established some of the first OTAs (e.g. Travelocity, Lastminute) but have since divested from the sector.

OTAs have also been increasingly implementing **B2B2C business models**, whereby they act as intermediaries between travel suppliers and other businesses who then sell travel products and services to end consumers. These approaches include:

- **Distribution to B2B Partners**: OTAs distribute their aggregated inventory of travel products and services to B2B partners, such as other OTAs, corporate travel departments, or other businesses operating in the travel industry. These B2B partners leverage the OTA's platform to access a wide range of travel options and provide them to their own customers. In these cases, OTAs typically earn revenue through markups or commissions. In markup models, OTAs in the past could also behave like merchants and purchase travel inventory from suppliers at wholesale rates and sell it to B2B partners at higher prices, retaining the difference as profit. In the currently prevailing commission/ incentive models, OTAs receive a commission/incentive from travel suppliers for each booking made through their platform.

- **White label solutions**: Some OTAs offer white label solutions to their B2B partners, allowing them to rebrand the OTA's platform and offer it as their own booking engine or website. This enables B2B partners to leverage the OTA's technology, content, and inventory without having to develop their own travel booking platform. This can also extend to fulfilment and the generation of an additional revenue stream.
- **Technology Integration and Support**: OTAs provide technology integration and support services to their B2B partners, including API integration, technical assistance, training, and ongoing maintenance. This ensures that B2B partners can seamlessly access and book travel inventory through the OTA's platform.

Box A. OTA Strategic Positioning

Etraveli. Etraveli Group is headquartered in Sweden, specialised in the flight market, and privately owned. The company reportedly caters to more than 30 million passengers annually in 75 markets worldwide, with a total transaction value of over €6 bn in the first half of 2023. It operates several consumer brands like Gotogate, Mytrip, Flight Network, Seat 24 and Super Saver and has offices in Sweden, Greece, Canada, India and Uruguay. The Group also operates the airline integration company TripStack to sell its IT technological solutions and have their **own metasearch engine** Flightmate (Flygresor.se) with a focus on flight sustainability criteria. It has established global partnership agreements with major metasearch engines like Google, travel metasearch engines as Skyscanner and Kayak, and several airline carriers, and is the **exclusive provider of flight content to Booking.com** the global OTA hotel accommodation leader by means of a white label agreement. Booking.com €1.63 bn merger with the Etraveli Group was not cleared by the European Commission on antitrust concerns and the decision was under appeal at the time of writing in May 2024.

Expedia. Established by Microsoft in 1995 as one of the first OTAs and listed on Nasdaq as an independent public company since 2005, Expedia has grown by means of external acquisitions and market consolidation particularly in the air business segment and has become the second largest OTA global market player after Booking.com. By acquiring both Travelocity (from Sabre, a GDS) and Orbitz (a privately owned company of the Blackstone Group) it came to control some 80% of the OTA air business in the United States. It has also acquired the Germany-based Trivago as a **travel metasearch engine**. Now the **air business appears as increasingly marginal in the group's activities overall and accounts for some 3% of its total revenue in 2022**, i.e., a total $362 mn. Expedia relies on Amadeus and Sabre as GDS segment providers to ensure the widest possible supply of content to its clients and negotiate annually several **direct agreements with travel suppliers** including air carriers. Over time, Expedia has been **increasingly operating as a leading global market B2B operator acting as a travel consolidator** purchasing a large volume of inventory at discounted wholesale rates. These discounted rates allow them to offer competitive prices to their customers while still generating a profit through **markups**. These products and services are structured into comprehensive packages or individual offerings to travel agencies, tour operators, and other resellers through various distribution channels.

Trip.com. The Trip.com Group is a Chinese-controlled entity incorporated in the Cayman Islands and listed on the Nasdaq and Hong Kong stock exchanges. It represents the third largest OTA global player after Booking and Expedia. Since 2017 it complements its Chinese offer with an English website aimed at the international market and has gained a controlling stake in an Indian OTA. It has pursued a strategy of integration with MSE by acquiring Skyscanner. The Trip.com group does not have offices in the EU but controls Travix.com operating both in the Netherlands and Germany. The Trip.com Group maintains that hotels represent some 40% of its revenue sources, thereby placing it halfway in terms of flight specialisation but r**emains the largest world flight OTA operator** with reported total flight revenue of €1.14 bn. This is complemented by rail ticketing where it owns a dedicated company also specialised in split fares. In 2020 Trip.com also moved upstream into the B2B air business by reaching an **NDC Aggregator agreement** with British Airways and Iberia. The Trip.com Group operates a mixed business model and acts as an agent for substantially all domestic Chinese airlines and other undisclosed international airlines but also sources real-time availability and pricing information from "direct connects" to airlines' booking systems and GDS. Since 2016 it has been facing a particularly tough competitive environment in its heavily regulated Chinese domestic market where the four largest air carriers have banned third-party ticketing agents from selling domestic flight tickets on OTA platforms and replaced their agency commissions and rebate incentives to third parties including OTAs completely with a reduced fixed "admin fee" per ticket.

Edreams-ODIGEO. Edreams-ODIGEO is listed in the Madrid stock exchange and although active globally in 44 different markets **it draws over 84% of its revenue from the six largest European markets**, particularly France. With a reported €482 mn air revenue it appears as the largest global flight OTA in terms of value if China is not considered. It trades under several brands including E-Dreams, Opodo, Go Voyages and Travelink, and operates in the B2C leisure segment only. Since 2020 it has entered a **customer subscription programme** that already contributes to a substantial share of its profit, complementing its long orientation towards heavily investing in AI solutions [21]. The group's OTAs also use AI to reduce their

21. Edreams-Odigeo now claims reaching 1.88 billion daily AI simulations out of an average 100 million daily user searches, i.e. with an AI-driven 20 times multiplier effect.

dependency on Google search, which is considered a risk factor. Leadership in flight revenue does not correspond to a comparable market share in terms of total intermediated value, as this is reported in the €6.16 bn region, of which some €4.5 bn in the main European markets. This corresponds to an **annual 16 mn bookings made by an estimated customer base of 20 mn passengers**, of which 4.5 mn are enrolled under subscription programmes. Customer loyalty is also pursued by means of mobile app-based booking whose outreach (57%) is above industry standards. Revenue leadership in the non-China flight market comes from a 9.2% revenue margin on each booking, which is above market averages. The Edreams-Odigeo group reports that some 70% of this revenue (68% in 2023 vs. 73% in 2022) comes from diversification sources[22] and a similar share can be attributed to flight revenue on the total. It can be roughly estimated that both flight ancillaries and incentives from airlines account for some 3.7% revenue margin, i.e. some 40% of the total revenue margin on bookings. This is complemented by another 27% (2.5%) related to non-flight vacation products, while the remaining one third is made of a 30% or so (2.7%) of both consumer-related revenue including subscriptions and GDS commissions and a mere 2% (0.2%) of advertisement and income from meta searches.

Lastminute.com. The Lastminute.com group is a Dutch company listed on the Swiss Six Exchange and with an Italian controling investor. It trades under several brands: lastminute.com, Volagratis, Rumbo, weg.de, Bravofly, and runs two Meta search Engines: Jetcost and Hotelscan. Since 2014 [23] the Group has diversified away from the pure flight market that represented 96% of its revenue until becoming the **market leader**[24] **in Europe in the Dynamic Holiday Packaging segment** that now accounts for some half of its profit. The opaque pricing of Dynamic Packaging allows airlines – that would otherwise tend to increase their fares the closer one gets to the departure date (even if there are many available seats) to avoid training consumers to wait until very close to departure before booking – to sell tickets at discounted fares to get rid of distressed inventory, because the discounted fare remains effectively hidden from the consumer. To this aim Lastminute.com also enters white-label agreements with undisclosed partners. Because of the diversity of its business proposition, the Lastminute.com Group now draws some 39% of its revenue from B2B operations including meta-searches and advisory in marketing campaigns and this was the only market segment growing in 2023. In the same year the Group reported a total of **3.8 mn bookings for an intermediated value of €3.3 bn**, which reflects the Dynamic Holiday Packaging component. Corresponding revenue was at €321 mn, i.e., some 9.5%. The B2C flight business alone accounted for 25% of this revenue and metasearches for 6%. The Group has long undergone a judicial litigation in France on screen-scraping practices, but ancillaries now account for a marginal share of its revenue (less than 2%).

Kiwi.com. Kiwi.com is a privately owned Czech OTA working as a fare aggregator, metasearch engine and booking vendor for airline tickets and ground transportation. Its **original business model was based on the "virtual interlining" concept** – building itineraries from over 750 carriers, including ones that do not usually cooperate and providing a guarantee for the connecting flight. **Since 2020 the company has entered partnerships with airports to enhance their hub status** by operating self-transfer desks to facilitate transfers between airlines. Along with its headquarters in Brno, Kiwi.com has offices in Prague, Barcelona, Bratislava, Košice, London and Miami. The company is presently one of the five biggest online air ticket sellers in Europe, with an annual intermediated value of approximately €2 bn in 2022. Highlighting its friction with airlines, the company has faced two major legal disputes on screen-scraping practices and boarding denial to bearers of Kiwi-produced boarding passes.

Onthebeach.com. It is a UK listed company specialised in Dynamic Holiday Packaging catering to 1.6 mn passengers for a total €1,250 bn total transaction value, 8% of which is B2B. The company enjoys **one of the highest revenue ratios in the OTA industry, close to 16%**. Two thirds of this is earned as an agent and the remaining third as a principal. The company has faced litigation with air carriers on refunds and called for regulatory intervention on anticompetitive behaviour.

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22. Since diversification sources include non-flight vacation products (car rentals, hotels, and dynamic packages), commissions, and incentives directly earned from airlines and, most importantly, income from sales of flight ancillaries (including reserved seats, additional check-in luggage, travel insurance and additional service options).
23. This was also to take advantage of the revision of the EU Regulatory Framework on Travel Packages taking place by then while the older regulatory framework did not really envisage online operators.
24. The Group highlights as its competitive strengths a proprietary Dynamic Holiday Packaging engine, an expansive inventory and supply, an extensive data platform leveraging machine learning, proprietary Fintech products to allow deferred payments of holiday packages and the regulatory advantage derived from being a fully licensed tour operator at a pan-European scale.

2.3 Meta-Search Engines

MSEs provide a **flight search and price comparison service** that is highly appreciated and extensively used by travellers worldwide. They operate on a business model made of various combinations of revenue from advertising and commissions/ incentives from airlines or OTAs for click-through and passenger acquisition. They are characterised by the degree transparency vis-à-vis the final consumer envisaged in the EU legislation[25] and related provisions on how these incentives can influence the ranking of options they propose to their clients[26].

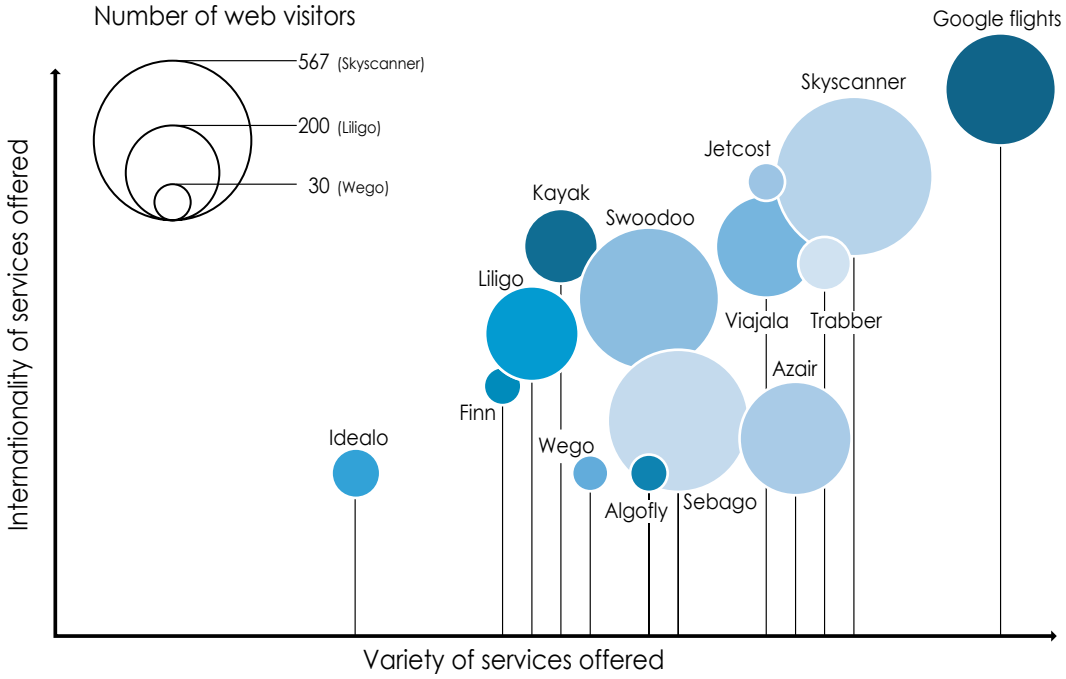
They have been categorised based on the relative importance played by their two most important features[27]. Some (e.g. Google, formerly Google Flights, Wego, Viajala, Azair, Skyexplorer) emphasise completeness of flight search by investing in **data aggregation and compilation** as well as filtering and sorting to allow users to refine search results based on specific criteria such as price, duration and departure times, while others (e.g. Kayak, Momondo, Idealo, Swoodoo, Finn, etc) have a stronger **price comparison component**. A third group (Skyscanner, Jetcost, Cheapflight, Mobissimo, Liligo, etc.) is **located between the first two**. Some MSEs allow redirection to the airline or OTA website for booking or incorporate user reviews and ratings to assist in decision-making. A key challenge for MSEs is to be able to provide real-time information and get access to suppliers' data to allow users to spot price trends. Some of them, in fact, have price alert mechanisms to inform users when tickets reach a given price threshold. This can be achieved by means of agreements with airlines and OTAs that allow MSEs access to the informational part of their database by means of dedicated APIs, which is typically reciprocated by means of **cost per acquisition or click-through arrangements** that redirect consumers to carrier and OTA websites. The existence of agreements between airlines and MSEs can represent a concern to competitors when it comes to possible distortion of related CO2 emissions data, whose methodologies are considered opaque.

The sector used to be dominated by Google. Skyscanner, and to a smaller extent Kayak are other large players active EU-wide followed by operators like Cheapflight, Momondo, Wego and Jetcost that together reach the size of Kayak. As depicted in the figure below this is complemented by another dozen even smaller entities often active at the national level only. Over the last few years **many MSEs have been acquired by OTA groups**, leading to potential conflicts of interest and making it harder for consumers to be confident that search results are unbiased. For example, Booking.com (formerly Priceline Group) recently acquired the Kayak Group, that in turn, also includes well-known brands such as Momondo, Swoodoo and Cheapflights, while Trip.com operates Skyscanner. Against this backdrop, it has become increasingly challenging over the last few years for smaller meta-searchers to exist at all with just a pure flight search.

By default, MSEs get remunerated through advertising, but agreements with airlines including commissions and other forms of incentives on the volume of sales channelled have become increasingly common. Such agreements have been reported by most although not all airlines in our sample. The number of agreements with individual MSEs varies by airline, with numbers ranging from 1 to 15.

25. Regulation (EU) 2019/1150 of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services.
26. Art.5 point c of regulation 2019/1150 above states that "where the main parameters include the possibility to influence ranking against any direct or indirect remuneration paid by business users or corporate website users to the respective provider, that provider shall also set out a description of those possibilities and of the effects of such remuneration on ranking."
27. See Valentina Piol, How the Strong Demand for Vacation Travel Makes the Metasearch Engines Boom Again. Retrieved online https://www.artefact.com/blog/metasearch-engines-boom-an-overview-for-the-travel-industry/.

FIGURE 1. Overview of the MSE landscape



Source: Authors' presentation of data from ahrefs.com

As mentioned above, when remunerated by means of a commission and not as advertisers, the distinction between MSEs and OTAs can become increasingly blurred. **While carriers report that MSEs can intermediate some 10%-20% of total trips (i.e., sold both online and offline), related shares in terms of value can range from about 5% to 15%** of the total. One interviewee also cited survey data indicating that the proportion of OTA trips originating with MSEs is much higher, exceeding 30% in some markets.

The figures presuppose **highly variable reference markets**, with some airlines targeting MSEs for promoting low-fare flights and others maintaining a more neutral approach. In cases where airlines have an incentive structure for MSEs to go upmarket, market share in value can even be slightly higher than in volume. This overlapping of roles in channelling sales to airlines and possibly different internal classification methodologies partly also explains why airlines reporting the lower share of OTA-intermediated trips are those that conversely report the higher share of MSE-intermediated trips, as the two were to some extent substitutes for each other.

Past evaluations of the EU Code of Conduct on Computerised Reservation Systems (CRS)[28] have reported widespread concerns about Meta-search engines being perceived to be competing unfairly in several ways, according to stakeholders, particularly travel agents. One concern is that not being covered by the provisions of the Code of Conduct, MSEs are not bound to strict neutrality but **can use biased displays, or be biased by their controlling OTA entities** to the extent this is allowed by relevant EU legislation on fair practices in online searches.

In fact, a situation has been created into which **MSEs and OTAs are subject to two different sets of rules** as regards what is considered fair vis-à-vis the public, at least in theory. This is because OTA rules would apply to content distributed from GDS only and this could be very difficult to enforce. Additionally, MSEs sometimes redirect consumers to third-party websites for booking, where the final price presented can be higher than what was initially displayed on the MSE. This practice can harm consumers by not providing a clear and accurate representation of costs upfront and bias comparisons as these are made on an oversimplified description of the service provided by different prices. Only a few MSEs have been willing to make progress in this respect and more accurately report what is being compared (e.g. whether baggage or seat selection is included and so on). Some airlines also highlighted the **computational costs that MSEs impose** from the large search volume.

28. European Commission, Directorate-General for Mobility and Transport, Horton, G., Neiva, R., Morgan-Price, S. et al., Support study for the ex-post evaluation of regulation 80/2009 on a code of conduct for computerised reservation systems – Final report, Publications Office, 2020, https://data.europa.eu/doi/10.2832/650727.

2.4 Global distribution systems

As explained above, GDS are intermediaries that use computerised reservation systems to connect airlines with ticket vendors, traditionally hundreds of thousands of brick-and-mortar TA worldwide, as well as travel management companies (TMC)[29].

The fee structure of a GDS involves **booking fees that airlines must pay to the GDS providers for each booking made through the system**. These fees can vary significantly based on individual agreements between airlines and GDS providers, influenced by factors such as the level of content provided and market conditions, but are believed to represent over 70% of GDS revenues. A part of these fees is then used as incentive payments for travel agencies, tying them to the system. As such, avoiding such fees by reaching consumers directly has been a necessary pre-condition for the viability of LCCs, which otherwise would find it much harder to reduce costs. In addition, to protect consumers from the consequences of potential abuses and anticompetitive behaviour, GDS operations are regulated by the EU Code of Conduct on Computerised Reservation Systems[30], though a long-planned review by the European Commission has not yet taken place.

The market for GDS is **oligopolistic and highly concentrated**: its main players are three companies: Amadeus, Sabre, and Travelport (the latter operating three systems: Galileo, Apollo and Worldspan although the latter two will probably be discontinued) together **controlling over 90% of global GDS air bookings**. These companies are all spin-offs of airlines that established them to distribute their tickets to TAs in a more automated way and that went public in the early nineties, thereby severing all relations with their founding members. Although the existence of the internet has led to downward trends for GDS, they still account for a significant portion of total trips in the EU, estimated to be around **20-25% of the total, over and above the 5%-10% share of those GDS tickets mediated by OTAs**. Amadeus, which was originally created by four European airlines and used to be prominent particularly in Western Europe, still retains lead of the market with a share variously estimated in the 60%-65% range of the GDS market. The other two operators are of respectively US and UK origin, and roughly split control of the remaining part with some more notable market presence in Eastern Europe and a slight prevalence of Sabre over Travelport.

The double-sided nature of the underlying market, where GDS charge airlines for every booking they make while providing incentives to TA to use their services and pay for their charges, **put GDS in a strong bargaining position** with suppliers and traditionally has **allowed GDS companies to have among the best profitability in the air travel ecosystem**. The average booking fee paid by airlines was traditionally between €3.61 and €5.20 per segment, as concluded by the interim check of the Code of Conduct commissioned by the Commission in 2012 for the year 2010. Current sources mention booking fees in the €6- €8 range, although this can vary greatly from airline to airline. GDS operators have publicly maintained that they contribute to **some 2% of total intermediated value**. This market power together with their dominant position in different geographical markets has historically caused antitrust scrutiny on GDS operations and several legal challenges, notably with airlines complaining about GDS' alleged anticompetitive practices[31]. This underscores the regulatory tension that has long characterised the GDS competitive dynamics and that ultimately led to the above-mentioned Code of Conduct, one of

29. A TMC is a specialised firm that offers comprehensive travel management services to businesses that typically include arranging corporate travel, booking flights and other travel-related activities. They assist clients in creating and enforcing their travel policies, offer tools and support for tracking and reporting travel expenses, and provide services to ensure the safety and well-being of travellers, including 24/7 real-time alerts about potential travel disruptions, health risks, or security concerns in specific destinations.

30. The Code of Conduct for Computerised Reservation Systems (CRS) is a regulatory framework established by the European Union in 1989 and amended in 2009 through Regulation 80/2009. In its work programme for 2021 the Commission announced a revision of the Regulation to take into consideration the latest market developments. Initially foreseen for the fourth quarter of 2021, it was postponed to 2021-2022. This was then envisaged as a part of the revision of the EU Multimodal Digital Mobility Service (MDMS) framework. https://op.europa.eu/webpub/com/refit-scoreboard/en/policy/14/14-25.html

31. Notable examples include: 1) the lawsuit by American Airlines against Sabre on their alleged anticompetitive behaviour. In the lawsuit, American Airlines accused Sabre of anticompetitive behaviour, alleging that Sabre was abusing its market dominance in the airline distribution system to suppress competition and maintain high fees. American Airlines claimed that Sabre was unfairly biasing search results in favour of airlines that paid higher booking fees to Sabre, thereby disadvantaging American Airlines, which sought to distribute its fares through other channels; 2) The European Commission's decision to investigate Amadeus and Sabre to ascertain whether their agreements with airlines and travel agents contained anti-competitive clauses. These two cases remained open for four years and were eventually closed in 2022 with no further action, but without an explicit clearance of these practices either.

the few instances in which the general antirust rules of Art. 101 and 102 of the Treaty on the Functioning of the EU (TFEU) have been complemented by a set of specific principles at the sectoral level to try and limit the proliferation of complaints.

The Code originally aimed to avoid interference on GDS operations by their founding airlines and enshrined the cornerstone **principle of market neutrality** in the presentation of available offers. This stipulates that a GDS vendor has to provide a principal display or displays for each individual transaction through its CRS, including therein the data provided by participating carriers in a "neutral and comprehensive manner" and without discrimination or bias. Criteria to be used for ranking offerings do not have to be based on any factor directly or indirectly relating to the carrier identity and shall be applied on a non-discriminatory basis to all participating carriers. The Code of Conduct for CRS is meant to ensure that contracts between GDS and airlines do not contain unfair or unjustified conditions, such as preventing airlines from operating with other GDSs or via their own sites, and prohibits GDSs from imposing highly restrictive terms in their contracts with airlines. **This is aimed at maintaining a level playing field, ensuring non-discrimi8nation among carriers regardless of their participation in GDSs, and guaranteeing transparent and comparable terms of competition in the market**. Furthermore, the Code of Conduct prohibits GDS from requiring airlines not to apply lower fares elsewhere than the ones provided to the GDS. Such clauses, if included in GDS agreements, could be scrutinised under the Code of Conduct as well as potentially under EU competition law, specifically Article 101 TFEU, depending on whether they restrict competition in ways that are unjustified or unfair.

GDS are currently believed to retain a strong position in the corporate traveller market as they have specialised in catering to travel management companies, long haul flights and complex itineraries and therefore their market share in terms of value is higher than in terms of bookings. Some GDS have claimed that the yield of a GDS booking for an airline can be **40%-50% higher** than the average one because of the nature of the underlying flight and client. This essentially suggests that tickets managed by TMC have a higher yield than average, as the reasons behind are basically the same. Carrier data show that **TMC tickets can represent one tenth to one fifth of GDS volumes, but double that share in terms of value.**

The residual market importance of GDS is particularly notable in the EU, where their market share remains comparatively higher than elsewhere. This can be attributed to several factors, including legacy ones stemming from the segmentation of the airline market in the EU translating into a parallel segmentation of ticket distribution, with each airline traditionally having a preferred long-standing relationship with a given GDS provider and consequently a stronger dependence on them. Another notable factor has been possibly represented by the slower uptake of online booking in certain EU countries and continued reliance on physical TA. Over time, GDS have also begun to remedy their technological weaknesses in managing ancillary services and built alternative systems to cater to this market, although their coverage still remains a fraction of the airlines offered in their mainstream service.

Contractual relations between GDS and airlines have become more complex, competitive, and unstable over the last decade in parallel with the introduction of the NDC as an alternative data exchange format. Airlines have started discontinuing their previous full content commitments/agreements in which they shared with GDS their entire offering (including fares and more extensive information) due to several factors, including the desire of airlines to have more control over distribution and to reduce distribution costs especially in the low-fare segment of the market. Airlines have been motivated to negotiate contracts without full content agreements because the discounts GDS traditionally offered for such agreements, while attractive, come with conditions that limit airlines flexibility in distributing their content across different channels, notably direct bookings through their own websites or Direct Connect NDC.

In response to this move, GDS have increased their booking fees for airlines providing them with incomplete content, as this was also a way for them to keep their revenue flows stable. Some airlines, starting with Lufthansa in 2015 have replied by **introducing distribution cost charges on TA using GDS**, thereby hitting the GDS incentives paid back to TA and users. These newly introduced distribution charges have become more widespread with time and vary from GDS to GDS also based on GDS booking fees. Distribution charges are typically modulated in a way to encourage TA to switch to NDC and to provide further incentives for TA to disintermediate GDS, as TA directly connecting with airlines are exempt. In response to this push towards NDC, GDS have been reported to provide TA with more generous incentives to compensate for airline charges if they stick to their traditional EDIFACT systems[32]. EDIFACT facilitates real-time interactions

32. See description in footnote 14 above.

between airlines and consumers, but have technical limitations that affect its ability to unbundle and package flight tickets and ancillary services, a key shortcoming in the current flight ticket ecosystem.

The dynamics between GDS and OTA are similar, although OTA have a keener interest in accessing the low-fare segment than bricks-and-mortar TA have. The introduction of distribution charges has if not put an end to at least reduced the model where TA typically subscribed to only one GDS, and GDS providers attracted TAs to their system by paying them incentives per booking; for larger agents this essentially meant getting paid to subscribe. Nowadays, even if GDS keep providing incentives, these are used to compensate for airline distribution charges and can hardly result into a positive revenue flow for a TA.

As major carriers, however, gradually withdrew their EDIFACT offers, **GDS slowly had to introduce some NDC capabilities**. GDSs currently differ in the uptake of verified NDC features and number of airlines' NDC content available. However, in general GDS still lag in terms of NDC integration; although Amadeus has shown the most significant progress in the NDC space, claiming to distribute content from about 20 airlines, Travelport and Sabre just have a handful NDC carriers each onboard.

Compared to GDS, the **recently emerging Flight Aggregators** (AirGateway, Duffel, Hitchhiker, Travelfusion, Verteil, etc.) come with more NDC connections that can easily reach 25-30 airlines each. These are relatively new players in the airline distribution landscape establishing direct connections with network and LCCs as well as with GDSs to source NDC, GDS, and LCC offers. Travel vendors can reach this content via a unified API or a prebuilt booking tool. Aggregators, however, often lack those pre-built integrations or features that allow them to seamlessly communicate and share data with the different departments or systems within TMCs. They therefore still appear at a competitive disadvantage, at least for the time being, vis-à-vis GDS in catering to the TMC market, as the latter do not need these investments. In the meantime, airlines have also been proposing their APIs directly to TMCs, as competition for the TMC market has become more intense.

Since GDS have divested from OTAs, GDS companies appear less diversified than their OTA counterparts. Most have concentrated in expanding their B2B offer to other travel suppliers and building a single platform. They remain mainly characterised by a notable expertise in technological integration and support services and appear often the providers of the PSS and NDC systems through which airlines eventually compete with their main line of business.

To sum up, GDS represent the legacy airline distribution model that although on a declining trend still retains considerable market power. They have managed to cope with the advent of direct distribution by **leveraging on their high-yield TMC clients** and entered fee wars with airlines to deal with the potentially disruptive consequences of the NDC revolution and try to steer related market developments.

Due to the dependence of GDS on TMC, they appear particularly exposed to the challenges faced by the TMC industry in the post-pandemic world. These include the fact that **the pandemic has accelerated the adoption of technology in travel management**, with an increased reliance on digital tools for booking, communication, and expense management and encouraged the **rise of so-called tech-first TMC** (e.g. TripActions, TravelPerk, Lola.com, Rocketrip, Upside Business Travel, Spotnana, etc.). Tech-first travel management companies leverage technology as a core component of their service offering and streamline travel booking, expense management (including centralised billing and traveller real-time reporting), travel policy enforcement and itinerary planning. Certain companies allow travellers to book and manage their trips while also providing insight and cost-saving recommendations to businesses or incentivise employees to save on business travel expenses by rewarding them with cash or gift cards for staying under budget. AI, in turn, increasingly allows personalised recommendations and customer support, as well as automated booking processes. Algorithms then also help businesses save money on travel expenses by identifying cost-saving opportunities, negotiating discounts with travel providers, and providing real-time insight into travel spending.

2.5 Concluding remarks

There are several open issues on how the air distribution ecosystem affects consumer welfare, which are discussed in the next chapter from an empirical perspective. From the airline industry perspective, **screen-scraping and OTAs' lack of transparency on their pricing of ancillaries appear as threats to travellers' welfare and fair competition** together with overall considerations on fairness of pricing practices and risks of deceptive practices.

It is worth giving an example from another jurisdiction to give a sense of the debate. In 2023, as part of his agenda to increase competition following his Executive Order on Promoting Competition, President Biden called on federal agencies, Congress, and private companies to crack down on junk fees and provide consumers with full prices upfront. It was found that junk fees cost American families tens of billions of dollars each year and inhibit competition, hurting consumers, workers, small businesses, and entrepreneurs. Research carried out in the US shows that fees charged at the back-end of the buying process make it harder to comparison shop for the best deal and lead to consumers paying upwards of twenty percent more [33]. The US Department of Transportation has issued proposals that, if finalised, would require fees to be disclosed up-front[34] for checking a bag or changing or cancelling a flight. It is also working on rule proposals that would ban family seating junk fees.

Drip pricing where the price of a product or service where the base price is shown initially and additional fees or charges revealed incrementally throughout the purchasing process, can lead **to consumers encountering higher total costs than the initial price suggested**. As discussed in the next chapter, additional charges for optional add-ons or mandatory fees are disclosed in a piecemeal fashion are extensively practised by OTAs in Europe particularly through MSEs. OTAs, for example, can attract consumers with a low-ticket price but then add surcharges for seat selection and baggage fees, which increase the overall cost well beyond what would be paid to the carrier in a manner that is not transparent to the traveller. This method of pricing can obscure the full price consumers will pay, complicating comparison shopping and potentially leading to **less informed purchasing decisions**, loss of consumer welfare and distorted competition. Price salience mechanisms do make the cost of a product or service more apparent or noticeable to consumers, thereby influencing purchasing decisions.

Conversely, **increasing price transparency, can lead to a preference for products or services that offer this clarity**, as seen in the willingness of consumers to pay a premium for increased price transparency [35]. There is preliminary evidence that by exploiting price salience mechanisms on flight ancillaries, OTAs can add up to a 5% margin on distribution costs and that this affects a considerable share of flights across the EU. The OTA position that selling loss-leading products is a legitimate marketing strategy certainly holds true when this is related to the sale of non-flight related ancillary services, and some are pursuing this strategy. But there is also a price salience component in OTA dip pricing that depends on simply overcharging flight ancillaries or creating them from scratch.

Finally, use of screen-scraping exempts OTAs from those market neutrality obligations when they display information provided by a CRS. According to the Code of Conduct, TAs would be required to **maintain display neutrality** [36] in presenting options to consumers, a regulation that does not apply to MSEs, which are not considered 'subscribers' under the Code of Conduct. This distinction allows meta-search engines to employ practices, such as biased displays, that are forbidden to OTAs, but they do not necessarily feel bound to when practising screen scraping or using API aggregators, leading to concerns about unfair competition.

33. https://www.nber.org/papers/w25186
34. https://www.transportation.gov/briefing-room/biden-harris-administration-announce-new-effort-save-americans-money-and-spur
35. Seim, K., Vitorino, M., and Muir, D. (2017). Do Consumers Value Price Transparency? Quantitative Marketing and Economics, 15, 305-339.
36. Neutrality within the code of conduct for computerised reservation systems refers to the obligation of the CRS to provide impartial and non-discriminatory presentation of travel service information. This means ensuring that: (1) All participating airlines or travel service providers are treated equally without favouring one over another. (2) Flight schedules, availability, and fares must be listed in a neutral and unbiased manner, ensuring that no provider is given undue prominence or is unfairly disadvantaged. (3) The order and manner in which information is displayed should be based on objective, transparent criteria that are known and accessible to all users. (4) CRSs should not accept payment or incentives from travel service providers in return for preferential display or treatment. The goal of these requirements is to ensure fair competition, provide consumers with clear and accurate information, and prevent the misuse of CRSs to manipulate traveller choices through biased information.

3. The consumer experience

The previous chapter examined intermediaries from a market perspective by analysing their business models, role in the value chain and relationships to with airlines. To dig into how this translates into actual practices and behaviour, the study team gathered in-depth feedback from airlines and conducted its own mystery-shopping exercise. This focused on OTAs while also considering MSEs to a certain extent. As would be expected, the results vary – OTAs are not a monolith. At the same time, though there are some exceptions, almost all of the OTAs in the scope of the study engage in misleading and unauthorised practices that lead to higher costs and worse experiences for consumers.

While OTAs can act as a one-stop shop for travel-related services and selling a range of products that complement flight tickets (car rental, accommodation, etc.), **in many cases they mark-up prices significantly compared to airlines** for baseline ticket fares and related services. Too often, the practices employed to obtain this margin are often misleading, abusive and / or unauthorised. Markups on ancillary services tend to be especially pronounced, since these are less easily compared than baseline fares. The next sections explore these aspects in more detail, starting with the 'best case' scenario in terms of ways that OTAs can add value for consumers, then going on to examine the price disparities between direct purchases from airlines compared to OTAs, and different practices as experienced across the customer journey. The chapter then finishes with some concluding remarks.

3.1 OTAs maximise their added value for consumers when they complement the airline offer

Before discussing problems, it is worth taking a step back to highlight the potential added value of OTAs in the ticket distribution ecosystem, which can benefit both consumers and carriers. This added value takes two related forms, namely:

- **Improving the match between supply and demand**: as with intermediaries in many fields, much of the value of OTAs lies in their ability to make connections that would otherwise go unrealised. Nearly all participating airlines emphasised this match-making role. Especially when an OTA (or MSE) is itself well known, it allows airlines to reach beyond core markets where brand awareness and customer loyalty are already high. For example, consumers may not know of certain smaller airlines, or airlines based outside their home countries. Or they may be especially price-sensitive and lack the time to identify and compare offers from multiple airlines. By providing a platform for itineraries involving more than one airline / code-share partner (known as 'interlining'), OTAs also enable consumers to travel on routes that are convenient or cost-effective than might be possible with a single airline. In addition, provided that they operate in a transparent manner, several airlines also appreciate the tech-savvy and advanced marketing approaches of OTAs, which were seen to fill a gap in their own promotional efforts. For these reasons, **convenience and the ability to compare prices were the factors airlines considered most important** to explain the decisions of consumers to purchase tickets via OTAs.
- **Offering complementary products**: in a similar vein, certain OTAs, particularly Expedia within the scope of the study, were considered best in class because of their ability to complement the airline offer. In practice, this means **acting as a one-stop shop for a variety of travel-related services beyond flight tickets**. This includes a more extensive range of services that most travel providers (including other OTAs and airlines) now offer, such as car hire and accommodation, as well as an array of other services including package holidays, activities and experiences, and offers for packaging these together. Normally, such OTAs do not extract (much) additional margin from tickets themselves and directly related ancillary services. Rather, their business models rely on commissions and mark-ups in the non-flight parts of the offer, avoiding pressure to resort to the types of abusive and unauthorised practices described in the next sections to extract value from consumers.

The **cost-benefit calculus is not clear-cut, and it naturally varies by airline**. In general, as explained in the foregoing chapter, LLCs rely to a greater extent on direct channels for sales of both tickets and ancillary services, limiting the scope for partnership. In contrast, network carriers have more complex, multi-faceted distribution channels wherein intermediaries have traditionally played a stronger role. Either way, when engaging according to airlines' terms and conditions, there is some potential for OTAs to add value for both airlines and consumers.

3.2 Overall, OTAs lead to significantly higher total costs for consumers

To verify and elaborate on the claims of the airlines, the **study team conducted its own objective mystery shopping exercise**, which was based on nine case studies whereby consumers with different profiles sought to plan otherwise identical trips via both airline websites and designated OTAs; the methodology is described in chapter 1, while Annex C presents more detail on the case profiles. The case-based approach was especially suited to approximating the real-life experiences of consumers, **facilitating comparison of the bottom line as well and the entire customer journey**. However, it should also be noted that airlines and OTAs present their offers in different ways, with the latter often being more complex and confusing. For this reason, while each case involved selecting similar airline and OTA options, these were not always identical. It was also **not possible to map and compare systematically the fares and ancillary services of all airlines and OTAs**, which would have been beyond the scope of the exercise. Rather, the results are **indicative of what typical consumers could expect on average in a range of scenarios**. The results of the mystery shopping align closely with similar and larger-scale exercises conducted by two of the airlines participating in the study, ensuring confidence in the findings despite the relatively small sample of cases. Table 1 below presents the headline results of the nine case studies. While the specifics of each itinerary, airline, and ancillary services differ, overall picture is highly consistent, namely that **OTAs are almost invariably more expensive than airlines**, often to a significant degree. Other things being equal, **on average booking a trip through an OTA cost nearly 25% than an airline**, while the prices of certain OTAs were even higher. Specifically, Gotogate, Edreams, Mytrip and Opodo – all of which are part of the two largest OTA corporate groups – were the most expensive, representing increases on airline prices ranging from over a third to nearly 50%. In contrast, only one OTA – Expedia – came close airline prices; this may also be due in part to agreements between certain airlines and OTAs, which were not taken into consideration in selecting airline-OTA 'pairs'.

Table 1. Mystery shopping – overall price comparison, prices in €

#	Itinerary	OTA	Airline price	OTA price	Difference	
1	BLQ-OLB; 1 adult, 1 child	Gotogate	228	339	**49%**	**OTAs >30% more expensive**
2	CDG-AJA; 1 adult, 1 child	Edreams	167	248	**49%**	
3	BLQ-BSL; 1 adult	Mytrip	158	211	**34%**	
4	BLQ-BCN; 1 adult	Opodo	179	240	**34%**	
5	BRI-BIO; 1 adult	Kiwi	175	216	**24%**	**OTAs 10%-30% more expensive**
6	CRL-ARN; 1 adult	Kiwi	107	129	**20%**	
7	FRA-DBV; 1 adult	Tix	556	625	**12%**	
8	ORY-BER; 1 adult	Expedia	145	150	**3%**	**Airline and OTA prices comparable**
9	BFS-NCE; 2 adults	Expedia	692	599	**-13%**	
				Average price difference	**23%**	

Source: Mystery shopping exercise by the study team; note that to facilitate comparison the exercise sought fares and ancillary services that were as similar as possible between airlines and OTAs, but that these often differed slightly.

Zooming out, **this begs the question of how OTAs turn a profit**. After all, even if the comparison function of an OTA adds value by helping consumers to identify more options than they may have found otherwise, there is nothing to stop them from saving money by making actual purchases directly from airlines. Sometimes the answer is convenience, especially if an itinerary is complicated and / or involves multiple airlines / interlining. But often, as far as the available evidence shows, the answer is that **most OTAs engage in a range of practices that could be considered misleading or abusive**, some of which are not authorised by airlines.

These **bad practices affect the entirety of the customer journey**, from the initial search for flights through the purchase of tickets to the journey itself and its aftermath. The next section elaborates on each step of the process, comparing and contrasting the experiences of consumers who deal directly with airlines with those using OTAs.

3.3 Misleading, abusive and unauthorised practices are widespread across the customer journey

This section discusses the different misleading, abusive and unauthorised practices of OTAs in terms of their impact on the different steps of the customer journey, namely initial search and comparison (step 1), finalisation of the offer and purchase (step 2), lead-up to travel (step 3), and travel and its aftermath (step 4). There are also several cross-cutting issues that affect the entire customer journey and are worth considering separately.

3.3.1 Step 1 - Initial search and comparison

Meta-search engines

The initial search for and comparison of offers is vital because it is the only step where – any existing experiences and loyalties notwithstanding – a consumer may still be open to a wide range of offers from different airlines and intermediaries. Indeed, as discussed below with regard to experiences with OTAs, once starting down certain vendor's path, it becomes increasingly difficult and effortful to change course. There are two main ways that a consumer may initiate the process of searching for and comparing offers. They can either immediately visit the website (or app) of a preferred vendor (either an airline or OTA), or use an MSE to compare offers. Indeed, the difference between these two types of intermediaries is not always obvious and visible to consumers, due both to the blurring of roles and similar-looking comparison functionalities.

Airlines have reported that **some 10%-20% of total trips are arranged via MSEs** (with one airline citing data showing that MSEs are used for a higher share likely for trips booked using OTAs; see more detail on market share in section 2.3 above). For consumers taking this approach, the journey starts by making a search on any of several prominent MSEs, then, after finding an attractive offer, is redirected to either an OTA or airlines to move forward with the purchase. The added value lies in the comparative element, since MSEs act as a platform for screening a far wider range of offers than any individual vendor can provide.

There is some anecdotal evidence from interviewees that MSEs can be used in misleading ways. In particular, unscrupulous OTAs may feed artificially low offers to MSEs, which direct traffic to higher prices on the OTA website as part of a 'bait and switch' tactic. There was also a concern that MSEs may privilege the offers of certain OTAs, such as those in the same corporate group.

The study sought to examine such issues empirically by making a comparison between a sample of the mystery shopping itineraries in terms of the prices displayed on MSEs and the click-through offers with airlines and OTAs. This was done for three itineraries, three major MSEs and the six OTAs in the scope of the study. **Prices were found to be nearly equivalent, with no evidence of widespread abuse**.

Online travel agents

Many **consumers start their journey by seeking out a known airline or OTA directly**, or by responding to an advertisement. Experiences of the search and comparison step differ depending on the airline or OTA in question. For example, default fares sometimes already include ancillary services, like cabin baggage and seat selection, while others are more basic. This makes it hard to draw a straight line between initially displayed fares and the final price differences presented in Table 3 for a range of specific itineraries and fare classes. Indeed, it was interesting to note that some OTAs lead with high fares, while others aim to entice consumers with a low offer that gradually increase throughout the process as obligatory fees and charges pile up. In other cases, base fares themselves are suddenly increased in the middle of the booking process without explanation.

Regardless of the fare, **a key distinction between most airlines and most OTAs is that airlines tend to display their offers in a much more user-friendly and transparent way**. The number of immediately visible options is limited, the prices of key components are broken down (e.g., for outgoing vs return flights) and it is clear which aspects are being selected upfront and which will come later in the process. In contrast, OTAs (with the exception of Expedia) often present a wider array of options that aggregate different services into a single headline price that is opaque and hard to understand. The headline price also often builds in unavoidable service charges for the OTA that are not displayed in disaggregated form.

Moreover, **several OTAs (namely those in the eDreams-Odigeo group) use the initial comparison page to promote loyalty schemes by displaying member-discounted fares prominently, or even as the default option**. These schemes typically provide access to a certain percentage discount on flights and related products in exchange for an annual fee. However, the future benefit is uncertain since it depends on future

travel and prices which will by definition be unknown. The price of membership is also often obscured because the OTA groups it with the purchase of the itinerary being considered and various extras that the consumer may or may not want. If a consumer buys the membership, they are locked in not only for the individual trip, but for upcoming travel as well.

Another practice to lock in consumers at the initial stage is **to require consumers to provide personal details before passing to the next step**. This was observed among both airlines and OTAs, though OTAs often required more information. Even if the initially selected offer becomes less favourable, seeing the process through becomes the path of least resistance, in a kind of mirror image to the socially beneficial 'nudge' tactics used by governments. In contrast, changing vendor at this stage becomes relatively more time-consuming and effortful. Indeed, after requesting passenger details one OTA even changed the offer entirely, claiming that a certain flight was unavailable and proposing a significantly more expensive option instead, despite that the fact that the original itinerary was freely available for purchase (more cheaply) on the airline's website.

Finally, it is noted that **OTAs sometimes construct itineraries that cannot be purchased directly from a single airline**, a practice known as 'virtual interlining'. This can include an outbound trip with one airline and a return by another airline, or even connecting flights that use different airlines as part of the same journey. Virtual interlining can add value by alerting the consumer of convenient travel options, and avoiding the need for the individual to make multiple purchases. However, **in some cases itineraries compiled by an OTA can be misleading and / or risky**. A particular issue is that consumers may face unexpected problems or costs in case of any disruption. For example, if a route involves multiple airlines, it may not be made clear to the consumer that their connection is not guaranteed in case of delay to the first fight, meaning that they could be stranded in the connecting airport and forced to buy a new ticket. Some itineraries also cause the consumer to unknowingly violate an airline's terms of carriage. This can occur if a consumer is sold a single ticket that is in fact obtained through purchasing a return journey on their behalf, or if a connecting airport is sold as the final destination of an itinerary. It was not possible to examine such issues in the mystery shopping, and airlines did not consider that they were widespread among OTAs in general. However, virtual interlining was reported as an important business stream for certain OTAs, which can cause major issues if the necessary back-end arrangements are not in place to protect consumers.

3.3.2 Step 2 - Finalisation of the offer and booking

After selecting an initial fare, regardless of the vendor, the consumer needs to make a number of choices before arriving at a final offer and purchasing a ticket. Consumers are especially open to abuse at this stage because, if not fully 'captive', they are invested in the process and have typically already provided personal information. This increases the time and effort needed to abandon the process and pursue other options, creating a 'locked in' effect. It follows that the sale of ancillary services is where the biggest disparities between airlines and OTAs emerge.

The wide array of fare types, offers and services and different ways they are structured makes it **difficult to map and contrast them, and to make simple comparisons**. A particular challenge is that airlines sometimes bundle certain services with fare classes in ways that OTAs have trouble reflecting in their offers. Airlines and OTAs also display considerable diversity in terms of the services provided, how they are structured and how much they cost.

Nonetheless, the picture is broadly clear: with the notable exception of Expedia, **OTAs charge more than airlines for the same ancillary services**. Moreover, many OTAs also offer consumers services such as SMS updates and check-in assistance (further discussed under step 3 below) that are either provided by airlines free of charge or add little-to-no value.

The **disparities are shown in Table 2 below**, which depicts some of the most common ancillary services that are presented during this part of the customer journey. The figures are based on the mystery shopping case studies, supplemented where needed by additional checks on the airline and OTA websites. Where the fares selected for case studies included certain services, this is marked in the table. That said, it is noteworthy that in **some cases OTAs charged separately even for services that were included in the airline's comparable fare class**. While the mystery shopping consisted of nine specific cases rather than a systematic comparison of fares and services between airlines and OTAs, the consistency of the findings speaks to their credibility, as does alignment with research done by study participants Lufthansa Group and Ryanair.

Table 2. Final offer options, comparison of airlines and OTAs, prices in EUR

#	Itinerary and OTA	Hand baggage	Cheked baggage	Seat selection (standard)
		Airline / OTA / % difference (if applicable) Red: OTAs >30% more expensive; yellow OTA 10%-30% more expensive; green: airline and OTA prices comparable		
1	BLQ-OLB; Gotogate	13 / 19 / 46%	41 / 70 / 71%	15 / 27 / 80%
2	CDG-AJA; Edreams	Included in fare	Included in fare	9 / 27 / 200%
3	BLQ-BSL; Etraveli	Included in fare	60 / 90 / 50%	14 / 20 / 43%
4	BLQ-BCN; Opodo	Included in fare / 20	74 / 89 / 20%	Included in fare / 20
5	BRI-BIO; Kiwi	46 /160 / 248%	53 / 140 / 164%	16 / 19 / 19%
6	CRL-ARN; Kiwi	Included in fare	50 / 80 / 60%	Included in fare
7	FRA-DBV; Tix	Included in fare	Included in fare	Included in fare / 10
8	ORY-BER; Expedia	Included in fare	Included in fare	Included in fare
9	BFS-NCE; Expedia	62 / No option	96 / 98 / 2%	13 / 16 / 23%

Source: Mystery shopping exercise by the study team;

It should also be emphasised that all airlines and OTAs sell **insurance services**, covering a variety of eventualities regarding the flights themselves (e.g., need to cancel due to family issues, or missed departure) and more traditional travel insurance (e.g., medical expenses for illness while travelling, repatriation). These services are difficult to compare without an in-depth review of the precise conditions and level of coverage, which often vary by country of residence, involve third parties and would have been beyond the scope of this study. Prices for insurance were normally higher from OTAs than airlines, but this dynamic was not uniform and the disparities did not seem as large as for other ancillary services.

More broadly, it is clear that **OTAs charge more than airlines for the same / very similar ancillary services**, again begging the question of why consumers buy them.

Though conclusions cannot be drawn with the certainty that would be possible from a systematic behavioural study, it was clear from the mystery shopping – and from the experiences relayed by airlines – that OTAs employ more aggressive tactics at this stage of the process. Bearing in mind that **by having invested time and effort in the process consumers are already to a certain extent 'locked in'**, these could have the effect of instilling confusion and encouraging panic-buying.

Specific tactics observed are listed in Box B. As shown, **OTAs not only charge more for the same (or in certain cases unneeded or free) services, but also engage in practices** that make consumers more likely to select them at this pre-purchase step than would counterparts going through the same process on the website of an airline.

Box B. Typical untransparent, misleading and abusive practices at the booking stage

- Mark-ups and other charges are not displayed as coming from the OTA, leading consumers to assume that prices would be at least as high from the airline or any other vendor,
- Mixing and matching ancillary services into different, overlapping packages with opaque pricing and confusing names,
- Bombarding the consumer with warnings that that fares are about to increase significantly, alongside the offer to 'lock in' a favourable price for a considerable fee,
- Giving the impression that not purchasing unnecessary services (e.g., SMS updates, automatic check-in) will entail significant risks,
- Charging high processing fees for any services not bought at the time of the initial purchase, which can be added without penalty fees to tickets bought directly from the airline,
- Using misleading titles (e.g., 'standard') for services that are significantly more expensive than the cheapest option,
- Pre-selecting services that add to the price originally selected by the consumer.

3.3.3 Step 3 - Lead-up to travel

Once the tickets have been purchased, if everything goes to plan then the consumer has little to do until the trip is imminent. Of course, any number of issues can come up before travel, such as the discovery of a mistake made during the booking, an unexpected need to add luggage, or illness or some other matter that requires a date or itinerary change. A consumer may also decide after booking that they want certain upgrades after all, like seat selection, priority boarding or a meal, or have some other reason to verify options or details. In general, the consumer is required to arrange such issues with the vendor of the tickets, whether it be an airline or an OTA, with some exceptions depending on agreements between certain airlines and OTAs.

Generally, the patterns described above also held for this stage of the customer journey. When changes need to be made or additional services purchased, **in most cases the experience is less straightforward with an OTA and usually more expensive**. For example, fees for changing the details of an itinerary are almost always higher with an OTA than with an airline. Moreover, to a greater extent than at other stages, it is unclear who the consumer should contact, since several actions require contact with the airline even if the trip was purchased via an OTA. The mystery shopping sought to examine five types of actions in particular, the experiences of which are summarised in the table 3 below:

Table 3. Actions made after the initial ticket purchase

Action	Summary and comparison of airlines and OTAs
1. Additional baggage	Consumers often realise that an initial luggage allowance was overly optimistic and need to purchase additional capacity, meaning this is probably the most common of the post-purchase actions examined. Airlines typically offer the possibility to add baggage at this stage for a fee via a simple online form, though sometimes the charge is slightly higher than it would have been initially. **OTAs typically charge more for this service**. Some OTAs have also been found not to offer additional baggage options directly, but rather send consumers to the airline. Depending on the airline and level of coordination, this may be possible online or require a phone call or additional hassle and uncertainty.
2. Cancellation	Unlike the other actions listed, cancellation for a refund or route changes are not generally available, but rather depend on the flexibility of the chosen fare. For three of the cases examined in the mystery shopping, the airline allowed reimbursement in case of cancellation. However, only for one of these cases was the most flexible option on the chosen OTA (Edreams) also cancellable for a refund, and this fare is 10% more expensive than if purchased from the airline. The **other two OTAs (Tix and Mytrip) offer flexible fares that are more expensive than those available direct from the airline** despite the lack of a reimbursement option. A related issue reported by airlines is that some OTAs do not inform consumers of the conditions for exceptional free cancelation (e.g., death or serious illness of an immediate family member), and / or charge consumers to obtain such refunds.
3. Date changes	As with cancellation, the possibilities for and costs of date changes depend on the type of ticket. All airlines offer at least some applicable fares, which some OTAs also offer directly. However, the fares themselves and change fees are higher, with the exception of Expedia. Some OTAs (Opodo, Kiwi) also do not offer the possibility to make changes after the booking directly, but rather **direct consumers to the airline without providing instructions on how to do this**.
4. Changes to passenger details	Except for correcting mistakes on the intended name, changes are discouraged by airlines, presumably to avoid a secondary market in ticket sales. When changes other than corrections are permitted, t**his is often prohibitively expensive and more complicated to deal with if the ticket was booked using an OTA**.
5. Seat change	If seats selection is not included with the initial fare, then changes can usually be made afterwards, for fees similar to albeit sometimes somewhat higher than at the booking step. With the airline the process is straightforward. For OTAs, in some cases it is possible to change seats on the OTA website / app, while some OTAs direct consumers to the airline. Moreover, **in some cases the fee with the OTA is much higher than with the airline**. For example, for one trip purchased with Kiwi, the surcharge on seat changes is €30.

3.3.4 Step 4 - Travel and its aftermath

The customer journey culminates in the actual trip, plus the need to deal with any issues encountered therein. There are several aspects where the experience can differ depending on whether tickets have been purchased directly from an airline or from an OTA, namely:

- The provision of practical information before, during and after the trip;
- Check-in and receipt of boarding passes;
- Refunds and compensation in case of delayed or cancelled flights.

All three aspects rely heavily on **smooth communication flows**. The airline needs to be able to exchange information with consumers accurately and quickly, and, in some cases provide payment. Since this step of the journey was difficult to examine using the mystery shopping, it was investigated mainly based on feedback and data from airlines.

At root, **the main issues encountered at this stage stem from the OTA disrupting communication links between the consumer and airline**, and interposing itself instead. This is especially prevalent among OTAs engaging in the illicit practice of screen-scraping, which involves impersonating the consumer and providing personal details to the airline that are incomplete or incorrect. But to varying degrees, severed communication links and the resultant problems have also been reported among other OTAs.

When OTAs act as the only point of contact for the consumer, all information and payments need to be routed through them. This **creates opportunities for the OTAs to extract revenue for services that add no value** for the consumer, such as the automatic check-in services described above. It also **opens the door for error and abuse**. For example, airlines reported frequent complaints about a lack of communication regarding issues just before a flight, such as gate changes and delays. According to airlines, they systematically email and SMS all customers in such situations, but the communications do not reach the customers of certain OTAs (especially screen-scrapers), since the contact details provided in such cases are incorrect. This can lead to confusion and annoyance that reflect badly on the airline (because the customer will be unaware of the reason for the silence) and even missed flights. In some cases, airlines reported that OTAs check in on behalf of customers and produce their own branded boarding passes. This often occurs as part of automated check-in services, which bypass security and ground-handling protocols and block contact between the airline and customer at a crucial stage of the journey.

Perhaps most importantly from the perspective of consumers, **OTAs – again especially those engaging in screen-scraping – sometimes delay and / or keep a portion of any refunds or compensation** provided by the airline in cases of delayed or cancelled flights. A particularly frustrating practice involves the OTA passing on only amount provided by the airline, excluding its own mark-ups and fees [37]. This is enabled by the OTA using its own (rather than the consumer's) means of payment to purchase tickets, which makes it the default means for any return payment. It understandably catches the consumer by surprise, since they are not normally aware of the distinction between charges from the airline and OTA, and any explanation is provided only in the fine print of the OTAs terms and conditions. The airline's reputation is harmed in the process, even though screen-scraping is unauthorised and practised in violation of an airline's policies. Some airlines also reported related problems, such as c**onsumers being unable to get in touch with customer service about any issues encountered**, or the **airline being unable to locate records or process claims** because the consumer has not been provided with the correct reservation number.

3.3.5 Cross-cutting issues

Screen-scraping

Screen-scraping (see description in section 2.2) is invisible to the consumer, who is normally given the impression that the transaction is authorised. While it is not a faced explicitly by as part of the customer journey, it is a **key factor behind other abusive practices that are more directly experienced**, like

37. This failure to provide passengers with a full refund has been found unlawful, cf. C-601/17, Dirk Harms and Others v Vueling Airlines SA, ECLI:EU:C:2018:702. However, the judgement also makes airlines liable for the entire refund, including the portion retained by the OTA.

being charged for information services that airlines provide for free, or having an OTA appropriate a refund or compensation for a delayed or cancelled flight. Where relevant, the potential role of screen-scraping is mentioned in the foregoing analysis.

Relations between certain intermediaries and airlines

As explained in the previous chapter, many of the actors in the ticket distribution ecosystem have close relations. In particular, some MSEs and OTAs belong to same corporate group, while certain airlines, MSEs and OTAs have contractual agreements (though for reasons of commercial sensitivity the details of such agreements were not normally disclosed to the study team). The mystery shopping exercise was done irrespective of such arrangements, meaning that they did not play a role in the selected combinations of flight itineraries and intermediaries.

Regardless of an agreement between given airlines and OTAs, **in general like-for-like prices are higher with OTAs**, as demonstrated throughout this chapter. However, it should also be pointed out that other bad practices are much less common or (especially in the case of screen-scraping) non-existent when airlines and OTAs have an agreement. Inter alia, agreements facilitate contact with the consumer and avoid problems with refund payments because the lines of communication and terms and conditions for all parties are clear. This shows the potential for partnership to benefit the consumer, though the study cannot pronounce on the commercial implications for the different actors involved.

Standards of Global Distribution Systems (GDS) versus New Distribution Capability (NDC)

As discussed in the section 2.4, GDS have long played an important role on the B2B in ticket distribution and possess important market power, while aggregation platforms using newer NDC technology standards have entered this space more recently. For the purpose of the consumer experience, the salient distinction is that the NDC standard is better able to handle the complexity of unbundled, dynamic and highly tailored airline offers, and thereby display these accurately to consumers. In contrast, the much older legacy EDIFACT standard still used by GDS is unable to cope with certain aspects, and is thus more likely to present offers that are outdated or bundled in ways that are out of line with airline offers. For OTAs reliant on GDS, this can manifest itself in offers that change during the booking process, mismatches in the way ticket options or ancillary services are presented, and / or offers that less precisely meet consumer needs. The choice of distributor and its technology is invisible to the consumer and thus has not been examined as part of the mystery shopping, but it is likely that the continued use of GDS partly explains some of the issues encountered throughout the customer journey. Indeed, a related point from an airline is that the back-end passenger service systems of airlines (which are used to manage bookings, reservations, check-in etc.) often run on EDIFACT technology as well, which is a continued obstacle to NDC standards reaching their full potential.

3.4 Conclusions

The business models and market dynamics outlined above translate into practices and behaviour that affect consumers across the entire travel experience, from initial search and comparison, through finalisation of the offer and booking, the lead up to travel, the travel itself and its aftermath. The study examined these in detail based on the mystery shopping, complemented by feedback from airlines. The focus was on OTAs, with MSEs considered to a certain extent.

Overall, the **results were alarming**. On the one hand, the assessment found that OTAs have the potential to add value for consumers, which can be realised when they play a complementary to airlines. Such a role includes offering products that build on the airline offer (such as package holidays, activities and experiences, and ways of packaging them together), allowing OTAs to act as a one-stop shop for travel. By making use of their brands and networks, OTAs can also play a match-making role for certain types of consumers, such as those who lack awareness of the full range of airlines, have complicated travel plans or are especially price conscious and thus keen to compare offers from multiple airlines. For their part, MSEs were generally found to play a useful role in helping consumers to compare offers, without systematic problems concerning prices or other aspects.

However, despite their potential, the study found that **OTAs consistently add little value and**

detract from the consumer experience. All of the OTAs analysed for the study except one (Expedia) presented consumers with significantly higher prices, which overall were found to be **nearly 25% higher than airlines on average**, a finding that is corroborated by the large-scale analysis conducted by airlines.

Of course, charging more for the same service is not a winning proposition if conveyed transparently. To retain consumers despite higher prices, the study found that **nearly all OTAs in the scope engage in a range of misleading, abusive and unauthorised practices**. These permeate the entire customer journey, from initial search and comparison, through finalisation of the offer and booking, to the lead up to travel, the travel itself and its aftermath.

Practices differ depending on the OTA and itinerary in question, and are less likely among OTAs that have agreements with airlines. Nonetheless, **several problems were found to be widespread**, including:

- Opaque mark-ups and charges that are not shown as coming from the OTA
- Confusing and untransparent displays of offers,
- Misleading promotion of loyalty schemes,
- 'Locking in' consumers by making them invest time and effort in the booking process (usually by requiring the inputting of personal details) that would be lost if they pursued,
- 'Bait and switch' tactics that entice consumers with initially low fares, but then overcharge during the booking process for ancillary services, e.g., baggage and seat selection, and / or charge for services (like the use of certain payment methods) that are free with airlines,
- Unclear and confusingly named pricing schemes,
- Offering (for a fee) services that airlines provide for free (e.g., SMS updates),
- Misleading titles (e.g., standard) for services that are more expensive than the cheapest option.

Airlines also reported a number of **other bad practices related to communication flows between airlines and consumers**. These are **more prevalent among OTAs engaging in screen-scraping** (since this completely severs the communication link), but also occur among other OTAs to certain extent. Such practices include withholding or appropriating / part-appropriating refunds (a practice enabled by the OTA frequently using its own means of payment to purchase tickets), failing to provide consumers with information on delays, gate changes or other important issues, bypassing security protocols with automated check-in and OTA-branded boarding passes, and withholding / part-withholding refunds.

In summary, the study concludes that, while OTAs can add value by acting as a one-stop shop for travel-related services, this is rarely the case. Instead, OTAs – which operate in a highly concentrated market - were found to charge more than airlines for tickets and ancillary services while engaging in a series of practices that are untransparent, misleading, abusive and – in some cases – unauthorised. As a consequence, **OTAs are failing to meet the bar that consumers should expect** and leading to a travel experience that is far from ideal.

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Annex B – Questionnaire for consultation with airlines

Introduction

Overview

This questionnaire is part of a **study commissioned by A4E in order to examine the role and practices of Online Travel Agents (OTAs) and other intermediaries** in airlines' coupon distribution systems. By mapping the market landscape and identifying and analysing any abusive practices, the study will shed light on the impact of these actors on customers and carriers, and thereby provide evidence for future advocacy efforts. The study has been entrusted to a group of consultants at a company called Syntesia, who will collect and analyse information based on a variety of sources.

The sensitive and evolving nature of the issues at stake means that publicly available data is limited, and that **information from you as representatives of carriers will be of utmost importance**. The rest of this introduction explains in more detail how the questionnaire is structured and how the consultation will work in practice. It also describes the data security protocol that the study team will adhere to so that you can share information in confidence. Finally, it provides a glossary of key terms so that we can be sure the questions will be interpreted in a coherent and unambiguous manner.

Overall, we would like to point out that, while providing input will take some time, **we have endeavoured to make this exercise as easy as possible for you**. For this reason, the questions are focused on issues where we truly need your input. We also foresee a two-stage process that will allow information to be provided in both written and interview formats in a time-efficient way. Throughout the process, the study team is at your disposal to provide any assistance.

Structure and content of the questionnaire

The questionnaire is structured in terms of five sections on the following topics:

1. **Company information and arrangements with intermediaries**: asks for basic information about your airline and its operations, and arrangements with different types of intermediaries in the coupon distribution ecosystem.
2. **Market landscape**: focuses on the roles and market positions of carriers and intermediaries, and how these interact with each other.
3. **Prevalence of abusive and unauthorised practices**: aims to ascertain how widespread certain practices are and the impacts of these, in addition to asking trends over time, mitigation strategies and legal aspects.
4. **Impact of OTA practices**: zooms out to consider the impact of OTAs on customers and carriers.
5. **Additional information**: gives you a chance to highlight any issues that are not otherwise covered, and to provide any relevant documents that may be useful for the study.

Practical aspects

The questionnaire consists of a combination of requests for figures, closed-ended questions, and open-ended questions. As mentioned, we propose **a two-stage process comprised of written input and an interview by video conference that will be scheduled by the study team**.

We would be grateful if you could provide the written input at least for the closed-ended questions (if feasible, already before the interview). Written answers are also welcome for the open-ended questions, but it is not essential. The interview will focus on the open-ended, qualitative aspects, and on clarifying any issues.

When filling out the questionnaire, note that the **answer boxes for multiple-choice questions are highlighted in a light blue colour**, while the answer boxes for figures and open response questions are highlighted in a light green colour. All closed-ended questions can be answered with a simple X using the tick-box function (just one X per question).

Input is appreciated for as many questions as possible. However, you may skip any questions that are you unable

to answer. Moreover, if the data from your system does not match the requested format for any questions, please provide whatever possible input, along with any explanation that the study team will need to make sense of the information. Any supplementary data and information is also welcome.

Data security protocol

Our protocol for the collection and handling of sensitive data is described in detail in Annex (see separate document), which also forms an integral part of the contract between Syntesia and A4E. The protocol specifies that all information shared with the study team will be used exclusively for the study for the purpose of fulling the objectives set out in its Terms of Reference. It then defines the scope of information considered sensitive, and provides for several measures and processes.

Inter alia, these include confidentiality agreements, availability of the study team to sign additional non-disclosure agreements with specific carriers and processes for obtaining, handling, processing, reporting on and (after the study) destroying the data obtained. Importantly, the protocol emphasises that the data will not be shared with third parties including A4E and participating airlines, and that the study deliverables will present data in a form that does not allow information on individual airlines to be identified or reverse engineered.

Glossary of key terms

Several key terms are used in the questionnaire, which for our purposes are defined as follows:

- **Global Distribution Systems (GDSs)**: companies that act as intermediaries to consolidate travel services and facilitate their sale of airline coupons by travel agencies.
- **Journey types**: flights up to three hours are considered short-haul, while flights over three hours are considered long-haul.
- **Meta-Search Engines (MSEs)**: companies that allow users to search for and compare offers for airline coupons sold by other businesses (either carriers or OTAs).
- **Online Travel Agents (OTAs)**: companies operating online that act as vendors for users wishing to search for and purchase airline coupons, as well as related and (in some cases) other services. Question 2.1 lists the OTAs in scope of the study.
- **NDC aggregator**: An NDC aggregator is a platform or system that collects, consolidates, and distributes travel content based on the International Air Transport Association's (IATA) New Distribution Capability (NDC)[1] standards.
- **DMC/TMC**: A destination management company (DMC) is a professional services company that specialises in providing ground services and logistical support to clients in specific destinations. A Tourism Management Company (TMC) is a broader entity that focuses on managing and facilitating various aspects of travel and tourism experiences, often on a global scale.

Contact details

Please send your written input at latest two days before your interview with the study team to the team leader, Bradford Rohmer (bradford.rohmer@syntesia.eu) and Ludovica Geraci (ludovica.geraci@syntesia.eu). They are also available to answer any questions you might have. Thanks in advance for your collaboration! Before answering the questions, please fill in the table below.

Carrier	
Contact person	
Email	

1. NDC is a set of XML-based data transmission standards developed by IATA to enable airlines to distribute their content more effectively to travel agents and third-party distributors.

1. Company information and arrangements with intermediaries

This section asks a few questions about your company that will help us understand the market context, followed by more detailed questions about your relationship with OTAs. Use 2022 as the reference year, or otherwise the latest available year.

Q 1.1. Please provide basic company data in the table below. In case you do not have any of the information in the requested format, use the closest available proxy, or explain in narrative / qualitative form. The last row is for any explanation that might be needed to understand the information provided.

Reference year for company data	
Country / countries of headquarters for EU operations	
Annual turnover in the EU	
Annual number of coupons sold to customers in the EU	
Additional information	

Q 1.2. How many bilateral agreements do you have with online retail intermediaries (OTAs and MSEs)?

	OTA	MSE	Total
Bilateral agreements with intermediaries			
Can you briefly describe the main typologies of these agreements and the relevant elements that distinguish one from another (e.g. ticketing authority vs. commercial agreements and so on.)			

Q 1.3. Please complete the table with data on the coupons sold via different methods.

Coupons sold by outlet	Volume (#) or share (%) of total coupons sold	Value (EUR) share (%) of the value of all coupons sold	Reference year	Comments or further detail
Direct online sales by means of an MSE				
Direct online sales by means of own online channels				
OTAs – without GDS				
OTAs – through GDS				
OTAs – through NDC aggregators				
GDS (excluding OTAs) – e.g., through consolidators or brick-and-mortar travel agents				
Other categories you deem relevant to highlight (e.g. DMC/ TMC)				

Q 1.4. How concentrated is the market you deal with? Please provide some information on the share of coupons sold via GDSs.

	Value (EUR) share (%) of the value of all coupons sold	Share (%) per specific entity					Reference year
		Amadeus	Sabre	Travelport	Travelfusion	Others (specify)	
Total value of coupons sold to / via GDSs							
Total value of coupons sold to/via NDC aggregator							
Comments or further detail							

2. Market landscape

This section aims to gather input on the market landscape in terms of the roles of carriers, travel intermediaries and GDSs. The first question asks for figures on the market share between different OTAs. The rest of the questions are more qualitative. These may be covered most easily during the interview, but you may already consider them in advance and provide written input if possible.

Q 2.1. Please provide a detailed breakdown of the share of coupons sold through the following OTAs. Note that several OTAs have subsidiaries in the same corporate group, which are listed in non-bold, italic text. You can provide data on these either per corporate group or broken down by subsidiary, whichever is easier.

OTAs	Volume (# coupons) or share (%) of total coupons officially sold through OTA	Value (EUR) share (%) of the value of all coupons officially sold	Your own estimate of the market share of all coupons sold via OTA (however obtained, including indirect and unofficial sources)	Reference year	Comments or further detail, e.g., on estimate methodology
Edreams Go Voyages Opodo Travelink					
Etraveli [2]Gotogate Flight NetworkSeat 24					
Expedia CheapCoupons Orbitz Travelocity					
Kiwi					
Lastminute Bravofly Rumbo Volagratis					
Onthebeach					
Tix.nl					
Trip.com Travix Ctrip Qunar					
Other (please specify)					

2. This also includes Booking.com, Kayak, Priceline in content sharing with Etraveli.

Q 2.2. How do you view the role of OTAs, MSNs and GDSs in your overall distribution strategy?

Perception of partnerships with OTA as complementary or competitive to direct sales. How OTAs are leveraged for costumer acquisition. Initiatives to convert OTA customers into loyal travelers. Different treatment of API and online sales.	

Q 2.3. How do you view the competitive landscape concerning OTAs? How do you assess the OTAs main competitive strengths/advantages and likely future evolution?

Main ongoing trends in the OTA market, integration with MSN, reliance on GDS rather than direct agreements, specialization in niche markets. Importance of investment in strategic advertising and marketing, provision of bundled packages, availability of localized content and languages, other.	

Q 2.4. What key metrics would you use to evaluate the success of these OTA channels including (as relevant) for your agreements with them?

Sources of revenue? Price mark-up? Reliance on GDS/direct agreements as share of revenue? Cost per acquisition? Average sale value? Return on advertising spend, Conversion and abandonment rate, others? Can you provide reference values or provide relevant comparisons with airlines or among the OTA world to highlight different competitive behaviours?	

Q 2.5 How do you envisage the main trends for the future of strategic collaboration between carriers and OTAs/MSEs?

Need for strategic adjustment and innovation. Role of sustainability and ESG, involvement in data sharing and analytics, integration with OTA systems.	

3. Prevalence of abusive and unauthorised practices

This part of the questionnaire asks for your insight on abusive and unauthorised practices, with a view to understanding their prevalence and implications. A first question asking about the prevalence and impact of specific practices is followed by more qualitative questions about trends over time and strategies for combatting them. We would be grateful if you could answer at least the closed-ended questions in advance in writing, though any input on the open-ended questions is also welcome. We will then discuss these in more detail during the interview.

Q 3.1. Please give your view on the following abusive and unauthorised practices. For the sake of simplicity, the questions ask you to answer in terms of 'typical' OTAs. Then, you can use the right-most column to provide more input, e.g., on specific OTAs. Any additional practices can be described in the 'other' row at the bottom of the table.

Abusive / unauthorised practice	Prevalence	Depth and severity of impact	Comments or further detail
Charging **higher prices** than carriers (taking into account ancillary services)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Mis-selling flights (i.e. selling or reselling coupons without the permission of the carrier)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Misleading pricing (i.e., luring customers with prices that do not include all mandatory fees and charges)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Unfair contract terms (i.e., terms and conditions that are unclear, misleading and / or contain hidden restrictions or fees)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
False advertising (i.e., providing false or misleading information about the service to be purchased)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Bait-and-switch tactics (i.e., enticing customers with desirable offers that are substituted before booking)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Screen-scraping (i.e., deployment of hacking technologies to enter airlines' websites and steal data such as schedule and fares)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Issuing of 'fake' (i.e., own-produced, unauthorised) boarding passes	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Providing false passenger contact details to carriers	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Preventing carriers from contacting passengers	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Appropriating / part-appropriating refunds	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	
Other (please specify)	❒ Widely practised ❒ Sometimes practised ❒ Rarely practised ❒ Negligible	❒ Major ❒ Moderate ❒ Minor ❒ Negligible	

Q 3.2 How have abusive and unauthorised practices evolved over time? Do you expect any of them to become more prevalent or severe in the future with the rise of new technologies such as generative AI? Are any practices prevalent among certain OTAs?

Q 3.3 Can you describe any strategies (successful or unsuccessful) to preventing / combatting the abusive and unauthorised practices?

Q 3.4 Can you describe any litigation or intervention by the authorities that has affected abusive / unauthorised practices by (some) OTAs?

4. Impact of OTA practices

This section asks you to consider the bigger picture in terms of the impacts of OTA practices on both customers and carriers. As with the other sections, it contains a combination of closed-ended and open-ended questions. It would be useful to get your input on the close-ended questions in advance of the interview, while feedback on the open-ended questions can be provided either in advance or orally during the interview.

Q 4.1. Buying through OTAs may induce additional costs for consumers, mostly through higher unhidden or hidden fees. For each type of cost/fee listed below, can you gauge the size of the effect on the overall final cost (price) of airline tickets for consumers when sold through an OTA and when sold directly from an airline? Please provide any indicative quantitative estimate of the share of such additional costs out of the ticket's face value, and any qualitative elements that may help add context to your answer.

Type of costs for consumers	**OTAs** (on average)		**Airlines** (on average)		**Comments or further details** (including how estimates may vary across different OTAs and airlines)
	Impact on final cost (price)	% of ticket's face value	Impact on final cost (price)	% of ticket's face value	
Markup / Service fees	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	
Credit card fees	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	
Foreign transaction fees	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	
Baggage fees	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	
Seat-selection fees	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	
Cancellation, change and refund fees	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	
Travel insurance	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	_____%	

Q 4.2. Conversely, buying through OTAs might also induce savings for consumers, through reduced costs or lower final price on airline tickets or wider travel. In your opinion, do these savings have a large, small or no impact on the final cost/price for consumers, and to what extent they are a reason why consumers may favour buying tickets through OTAs rather than from other means (e.g., directly from airlines)?

Reduced costs and savings for consumers	Impact on final cost (price)	Impact on consumer's decision to buy from OTAs	Comments or further details
Convenience (single point / portal for multiple airlines and offers)	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	
Discounts and deals	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	
Package deals, bundles	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	
Promotions and rewards	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	
Price comparison	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	❒ Large impact ❒ Moderate impact ❒ Small impact ❒ No or negligible impact	

Q 4.3. Overall, what would you say is the impact of OTAs on consumers, including costs and other aspects? Please elaborate on your answer, including on non-monetary impacts (e.g., time lost).

Impact of OTAs on consumers	Comments or further details
❒ No or negligible impact ❒ Large positive impact ❒ Moderate positive impact ❒ Small positive impact ❒ Small negative impact ❒ Moderate negative impact ❒ Large negative impact	

Q 4.4. Overall, what would you say is the impact of OTAs on your airline, including costs and other aspects? Please elaborate on your answer, including on non-monetary impacts (e.g., reputation).

Impact of OTAs on your airline	Comments or further details
❒ No or negligible impact ❒ Large positive impact ❒ Moderate positive impact ❒ Small positive impact ❒ Small negative impact ❒ Moderate negative impact ❒ Large negative impact	

Q 4.5. Overall, what would you say is the impact of OTAs on European airlines in general, including costs and other aspects? Please elaborate on your answer, including on non-monetary impacts (e.g., reputation).

Impact on final cost (price)	Comments or further details
❒ No or negligible impact ❒ Large positive impact ❒ Moderate positive impact ❒ Small positive impact ❒ Small negative impact ❒ Moderate negative impact ❒ Large negative impact	

5. Additional information

Q 5.1. If there are any additional issues that you would like to raise concerning the practices of OTAs and other intermediaries, and their impacts on carriers and consumers, please describe them in the box below.

Please also feel free to provide any **documents to support your answers** to any of the questions in the questionnaire, such as detailed data files, or the results of any analysis you have done. You can do this by attaching the documents below, attaching them to the email with the completed questionnaire, or provide weblinks.

Annex C – Sample and additional detail for the mystery shopping case studies

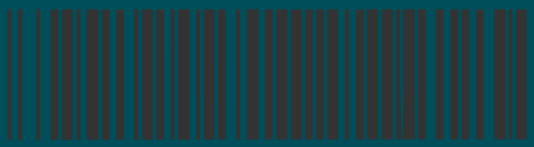
The mystery shopping exercise consisted of four hypothetical case studies, and five case studies involving full purchases of tickets by the study team. The sample was designed in order to capture as many as possible of the airlines and OTAs in the scope of the study, as well as a range of other parameters in terms of routes, consumer needs, ancillary services and timing. The cases involving full purchase were used to investigate aspects that were not possible otherwise, namely cancellation, date changes, name changes, seat changes and additional baggage.

Table 4. Sample for the hypothetical case studies,

Route	OTA	Dates	Traveller profile
BLQ-OLB;	Gotogate	Outgoing 1/9/2024, single ticket	A woman travels with her 3-year-old child who is going to have its own seat. They are looking for cheapest possible fares but need to be seated next to each other. They have one cabin luggage, two checked bags and a stroller. They need a cancellation insurance and priority boarding. The return will be by car and ferry so the ticket is one-way.
CDG-AJA	Edreams	Outgoing 23/7/2024, single ticket	Same as above
FRA-DBV	Tix	Outgoing 13/7/2024, return 20/7/2024	Single lady who has hearing problems and needs assistance at the airport. She wants to be seated in front with extra room for her feet. She can pay more for better options. She has made a mistake when buying her ticket and needs to change her date of birth. She also realised she doesn't need a travel insurance because her credit card already covers it, so she wants to cancel the insurance that she bought with her ticket and be reimbursed.
BFS-NCE	Expedia	Outgoing 13/8/2024, return 27/08/2024	An elderly couple travelling for holidays. They want a travel insurance that covers lost luggage and medical assistance. They are unable to check-in online or to receive emails so they don't care about any option that involves receiving email updates, but would like to receive SMS updates. Generally scared not to receive flight updates or not being able to check-in for free at the airport (so would take any option that makes this easier). Also scared for their luggage so would take any insurance that has a luggage cover/insurance. They bring one cabin luggage and one checked luggage each.

Table 5. Sample for the case studies involving full ticket purchases (all for one adult)

Route	OTA	Dates
BLQ-BCN	Gotogate	Outgoing 24/6/2024, return 30/06/2024
ORY-BER	Expedia	Outgoing 1/8/2024, single ticket
BRI-BIO	Kiwi	Outgoing 19/7/2024, return 26/7/2024
BLQ-BSL	Mytrip	Outgoing 25/7/2024, return 28/7/2024
CRL-ARN	Kiwi	Outgoing 20/6/2024, return 24/6/2024



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