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WHICH FUTURE FOR THE AIRLINE DISTRIBUTION?

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Preface

This work has the ambition to provide a comprehensive overview of the future scenarios that could shape the airline distribution in the coming years.

In order to accomplish this demanding objective, in the first place a historical analysis of the airline distribution, contained in chapter 1, has been carried out. By investigating the importance that distribution had in the airline development and by reconstructing the evolution of the distribution mix over time, some important trends and facts have been found and used to forecast the future of airline distribution. Several sources have been investigated and when possible data analysis on primary sources has been conducted.

After presenting the main events that shaped the airline distribution in the last 60 years, an in-depth analysis of the current travel distribution chain permitted to reveal the main actors, relationships and trends that characterise this environment. Furthermore, pro and cons of each channels from both the airline and the customers' perspective have been compared. The second chapter concludes that a change is needed as airlines, customers and intermediaries are simultaneously unsatisfied by the status quo and a change is needed.

Building on this assumption, the third chapter deeply investigates the future distribution possibilities. To construct the model, a mapping of the forces that shape and will shape the entire travel distribution environment is provided in the paragraph 3.1. This allowed to challenge the feasibility, benefits and cons of each proposed alternative model against the current distribution model. To derive a final answer on the topic, each of the possible models of distribution have been regrouped in a flowchart. In fact the future of the airline distribution depends by the degree of fulfilment of some key projects and industry-wide events. The feasibility of each of the scenarios outcomes as well as the relationships between the different events and projects are also provided.

A separate analysis has been then carried out in order to explore the innovative possibility of seeing airlines evolving to become the one stop-shop for travel. Starting from the views of some industry reports, the feasibility and the potential of such kind of initiatives have been presented.

A second part of the analysis takes the airline carrier perspective and aims to find the optimal distribution mix for each type of airline. As it has been realised from this research that much effort is still needed to align network strategies with the commercial and distribution ones,

recommendations have been provided for both network carriers, regional and low-cost carriers.

Moreover in the remainder of the chapter, it is suggested a new commercial process for airlines that aims to maximise the profitability by allowing for greater integration between airlines departments.

Finally, the conclusions will provide a final answer on how the airline distribution will plausibly evolve and how airlines can achieve greater profitability by harmonising their distribution policies with their strategies in a fast pacing market.

To support the conclusions different analyses and literature reviews have been carried out. Several carefully selected industry resources and reports have been examined as well as the most recent press releases from specialised reviews and websites and some of the most authoritative books on this topic. Outside industry-related materials, some consulting documents and other industries resources have been scrutinised with the aim of providing recommendations supported by applicable other industries best-practices. When possible basic data analyses and regression analyses have been executed, especially to determine the past trends of the distribution main variables and to find any relevant relationships between them.

This thesis has been conducted under the guidance of Professor Fabio Daniele Lazzerini, former Managing Director at Amadeus Italy and Enrico Bertoldo, Head of Operations at Amadeus Italy. In particular, interviews conducted with Mr. Enrico Bertoldo have been critical to give a practitioner's perspective to this work, by helping the author to enlighten airline distribution trends with the support of some useful information and opinions that would be otherwise impossible to find in any publicly available source of information.

Furthermore informal talks with two managers from two different leading European airlines, a low-cost carrier and a legacy airline, have been extremely useful to "taste the ground" over possible evolutions of the airline distribution environment and to confirm some assumptions made on the airlines' commercial process.

Finally, the author direct experience on the field, matured through the participation to an e-commerce research project jointly organised by Alitalia, the Dutch Embassy and the LUISS University and through working experience in one of the leading aviation consulting firms, has proven to be profitable to further calibrate the assumptions and the findings with the help of a more realistic vision of the airline business.

Chapter 1. The evolution of the distribution in the airline industry

Until recent times the aviation distribution has been a truly example of innovation in this area of marketing. The game-changing innovation of the first computer reservation systems has been one of the most remarkable technological and commercial advancements not only for the industry but for the whole world in general. In fact, the introduction of large computerised systems able to manage a large number of transactions posed the basis for the development of the air transport worldwide and as a result contributed to the rise of the globalisation phenomenon. Today, airline industry still represent an important part of the most recent e-commerce phenomenon but it has probably lose the leadership in innovation.

Broadly speaking, the evolution of the distribution into the airline industry could be divided in 6 phases, each corresponding to a defined time period and characterised by a big advancement in the travel distribution practice:

1. Pre 1960
2. 1960s: birth of Computer Reservation Systems (CRS)
3. 1970: Development of CRS and the indirect channels
4. 1980- early 1990s: globalisation of CRS
5. 1990s: birth of internet and low cost carriers
6. 2000s: the consolidation of direct channels

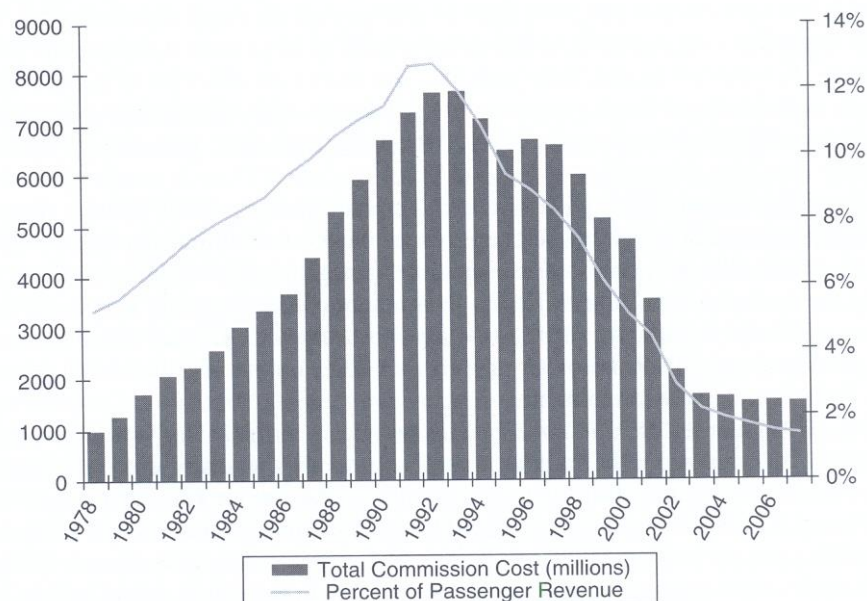


Figure 1. Evolution of U.S. airlines' commission costs, 1978-2007.

Source: US DOT Form 41

In Figure 1, it's represented the evolution of distribution costs from 1978 to 2007. This shows very clearly the impact that such technological innovations had in the distribution chain and in the whole industry. Starting by 1978, when airlines industry was deregulated in US, distribution began to rise as the Computer Reservation Systems became widespread in the travel industry. They continued to expand until 1994 when Delta, after the downturn caused by the Gulf war in 1991, decided to stop the provision of commission to travel agents. Other airlines joined Delta, e-commerce development led to a reduced use of traditional channels and progressively distribution cost lowered quite abruptly, until 2003 when they stabilised to a level inferior to the 2% of passengers' revenues.

Within the scope of this work, analysing in depth the history of airline distribution is key to understand the forces and mechanisms that shape the airline distribution in the present and will shape the airline travel in the coming years.

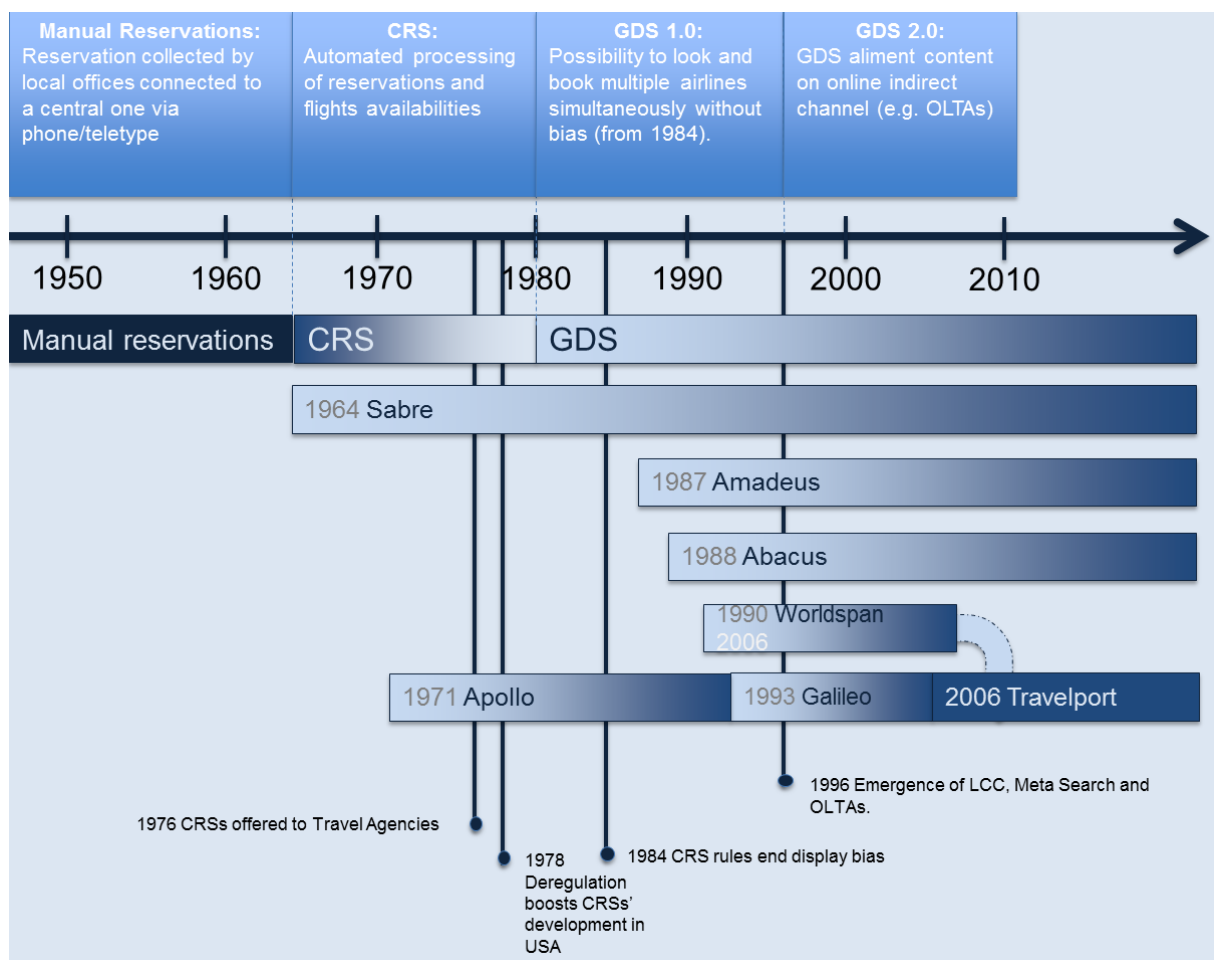


Figure 2. Evolution of the airline distribution

1.1 Pre 60s: the emergence of the need for an IT reservation system

After the 2nd world war civil aviation became gradually a much more reliable transportation system that allowed an increasing number of customers to cover long distances in short times. As scheduled services commenced to develop substantially, increasing needs for effective distribution emerged. In fact, demand for air travel began to exceed the available capacity and the effective processing of airline reservations began to assume increasing importance to ensure both that seats sold didn't exceed the seats available and that fuel and catering were brought in the exact quantity.

Typically after the war, sales of aircraft tickets were only possible through airline reservation offices reachable either physically or by phone. At that time, seat inventories for a given flight were managed by the airline office located at the point of departure that was responsible for advising the whole sales network about seat availability on a given flight by phone or teletype. In particular, reservation agents could book a seat on a flight after confirming seat availability posted on large display boards in each reservation office. Once a seat was sold, a one-way booking message via telephone or teletype to the reservation office of the flight's departing city had to be sent. There, the agent decreased the count of available seats for the flight. When the number of available seat dropped below a specified level a "stop sale" message was sent to all reservation offices and as a result the availability boards in all offices were updated. Apart from availability of the flights another type of information was recorded: the passenger name record (or PNR, as still nowadays is called). The passenger-specific information was noted on a PNR card by the agent after the sale of the seat was confirmed and transmitted via telephone or teletype to the flight's originating city office. A process-critical activity was then the reconciliation between the PNR card data and the seat inventory. This activity was performed manually by an agent at the flight's originating office as the departing date of the flight approached. However, data inconsistencies were common and this often lead to both low aircraft capacity utilisation and to a deterioration of the customer service level.



Figure 3. An airline central ticket office before the advent of the CRS

Although the introduction during the 50's in US of magnetic drum memories to replace the aforementioned availability boards helped to improve the accuracy of the seat inventories, passenger data was not easily captured and reconciliation problems due to the inability to link passenger records to seat records remained.

This reconciliation problems were not only problematic at that time but also completely unacceptable within the perspective of the coming passenger jet era. The developments in the aircraft manufacturing made possible to fly longer distances with more passengers on-board, meaning that reservation costs were to increase since the number of passenger were about to increase. This led C.R. Smith, president of American Airlines, to stipulate in 1953 a five-year joint agreement with IBM to study “the technical feasibility of creating an automated, integrated marriage of a passenger’s name to a seat reservation (Copeland & McKenney, 1988). The study phase concluded in 1958, when American Airlines signed a contract with IBM to work out the detailed specification of the industry’s first “PNR system” (Harvard Business School, 1967)

1.2 The 60's: CRS are born

American Airlines vision was to have a system that:

- could match passengers to seats
- permit speedy communications among airlines,

- contain seat availability
- print passengers itineraries and boarding passes directly in the travel agent office.

However, only 20 years later this vision was matched by technological capability. The first Computer Reservation System (CRS) denominated SABRE (Semi-automated Business Research Environment) was implemented gradually starting by 1961 and was able to ensure real-time teleprocessing for a very large number of reservations. The innovation of the introduction of Sabre was astonishing: according to (Head, 2002), SABRE was able at the beginning to manage an “unprecedented number of transactions, such as handling 83,000 daily phone calls” and (Smith, Gunther, Venkateshwara Roa, & Ratliff, 2001) point out that Sabre was “the first real-time business application of computer technology, an automated system with complete passengers records available to any agent connected to the SABRE system”.

Following the successful launch of SABRE in American Airlines, other airlines began to work together with IBM to develop their own Computer Reservation Systems (Delta and PANAM were among the first). Developments in IBM hardware and the know-how in software development accumulated with the aforementioned projects, led IBM to launch a standardised version of reservation system: the Programmed Airline Reservation System (PARS). This system was targeted to the medium-sized airline and aimed to be of the greatest appeal to such airlines, since not only it ensured the processing of even an increased number of transaction than SABRE, but it also dispensed airlines to develop their own CRS. Beginning in 1965, IBM began taking orders for processors with the PARS software for installation 1968 from airlines like Braniff, Continental, Delta. Northeast and Western.

However, United and TWA decided to develop ambitious custom systems with other hardware vendors (Burroughs and Univac) that included reservations, information management, flight planning, ticket issuance, freight billing, market research and spare parts management systems capabilities (United Airlines, 1965). Unfortunately, the lack of experience of their designed partners hampered the realisation of those far-reaching functionalities and urged the two airlines to seek IBM assistance and purchase the Eastern’s software. By the end of 1971, TWA had successfully implemented what it continued to call the PARS system while United’s developed APOLLO, destined to become one of the leading CRS.

By the end of 60's, the major US airlines efficiently managed thousands of transactions smoothly and “possessed stable, reliable internal systems and communication networks, which had become essential components of their operations” (Copeland & McKenney, 1988). Clearly, Computer Reservation Systems represented a big-step towards the advancement of the airline industry as they had a primary role in both increasing passengers numbers and improving airline marketing practices, since thanks to the reliable Sabre system American Airlines had begun to control under/overbookings, thus optimising load factors and the passengers' experience (Bard, 1986).

1.3 1970: CRS and the rise of the indirect channel

In the last years of 60's US travel agents managed approximately the 30% of the US airlines' tickets while the remaining 70% was through the airlines' ticket offices in major cities and at airport ticket counters (Copeland & McKenney, 1988). Airlines soon realised the potential market opportunities and started equipping travel agents and large corporations with terminals connected to their CRS. This major shift in distribution towards the extensive use of indirect channels by airlines was primarily motivated by the need of reducing the costs involved in operating the ticketing offices, often located in expensive locations in the centre of the cities. Successfully transferring the burden of selling tickets to travel agents seemed the right move for US airlines' executive but a capable information technology solution was needed.

With this perspective, airlines and travel agents soon recognised as a priority the realisation of a common standard to be implemented by “a cooperative system for shared use by all industry participants” (Copeland & McKenney, 1988). Nevertheless negotiations stalled in 1976 when AA and United began marketing their systems simultaneously. This fact has been fundamental for the future development of the airline distribution, since the CRSs that decided “to go alone” were the ones that became the actual actors of the airline distribution (see Figure 2).

Given the fact that airlines didn't come up with a common standard for distribution, in the attempt of gaining travel agents' market share by 1978 they started hosting flight availabilities for other airline carriers. Again it was American Airlines the forerunner in this initiative and it signed, by the end of 1978, 5 co-host agreements (American Airlines, 1978). This quick move is the example that shows how airlines were aware of the potential of effectively access the travel agents' market. In fact, among the motivations that let American to develop such initiative there was the need to expand SABRE reach to markets already

served by APOLLO, that had a far more weight between American executives than the opportunity to defray the costs of the “Travel Agency Automation Program”. Immediately United embarked its APOLLO system in a similar co-host program. After 4 years, in 1982 the result was clear (see figure below): airlines needed to join such co-host programs, because of the high barriers in developing their own CRS and because they couldn’t lose the “bandwagon” and being excluded by the travel distribution network.

<u>AA – Sabre</u>	<u>UA - Apollo</u>	<u>EA - SODA</u>	<u>TW - PARS</u>	<u>MARS PLUS</u>
Air Cal	Alaska Air	American	American	Eastern
Air Florida	Air Florida	Continental	Continental	Northwest
Continental	Continental	NY Air	Delta	Pan Am
Delta	Delta	Ozark	Eastern	TWA
Eastern	Frontier	Pan Am	Mississippi Valley	
Frontier	Mississippi Valley	Piedmont	Pan Am	
Golden West	Ozark	Republic	United	
Northwest	Pan Am	TWA	USAir	
Ozark	Republic	USAir	Western	
Pacific Southwest	TWA	Western		
Pan Am	USAir			
Piedmont				
Republic				
TWA				
USAir				
Western				

Figure 4. Airlines with Co-host agreements as of 1982.

Source: (Global Aviation Associates Ltd., 2000)

Most of the CRSs developed similar pricing strategies for their agency subscribers in the late 1970s and early 1980s. In return for the hardware, installation, software and training, the agency agreed to pay the vendor a monthly subscription fee. This fee often depended on the level of usage. The more bookings the agency made on the system, the lower the monthly fee. Agencies offset this expense by increasing the total commissions paid by the airlines resulting from the improvement in travel agent productivity. At the time, US domestic commissions were approximately 10% and international commissions were slightly higher. With an average productivity increase of 40%, the travel agencies were quickly becoming more profitable (Global Aviation Associates Ltd., 2000).

The benefits for airlines to involve themselves in this process of “*retail automation*”, as (Copeland & McKenney, 1988) denominated this “practice of extending the reach of the reservations systems beyond the airline’s organisational boundaries to the industry’s distribution system”, were absolutely clear. By providing access to their systems airlines, such as United or American, could generate revenues in multiple ways (Smith, Gunther, Venkateshwara Roa, & Ratliff, 2001):

- **CRS rental and/or usage fees** charged to travel agencies
- **Booking fees for each flight segment transaction charged to other airlines** “hosted” in the CRS
- **Revenues from bookings made due to CRS “display bias”** in which the flight of the airline that owned the system were given preferential display, influencing ultimately the way in which travel agents presented option to their customers
- **Revenues from bookings made due to a “halo effect”:** travel agents giving preference to the flights of the airline owner of the CRS.

After observing this, it becomes clear that airlines owners of CRS benefited in several ways, more than the ones that were hosted in their systems, thanks to a complicity of multiple effects of which the fairness is disputable. While display bias and halo effect (especially if referred to the mechanism by which travel agents sold more tickets from the owners of CRS because of their generous commissions) resulted in tangible benefits for the CRS owners to the detriment of co-hosted airlines and customers’ need for the most convenient fare, American and United were the ones who made substantial investments and needed to exploit every possible option to recoup the investments in a deregulated environment. However, at least in the early phases, this potential was not very clear to American and United. In fact, this stage of development of the airline distribution systems can be referred as a classic case of “serendipity” or “learning by doing” as the objective of American Airlines was, at that time, to secure a place for the system in the industry-wide airline distribution system. To American, automating the initial locations seemed justified initially on the basis of revenue retention, but soon they realised the strong potential in ensuring substantial revenue generation: \$20 million in incremental revenues and a 500% ROI (including incremental revenues) was estimated to be the impact of the introduction of the first 200 terminals in travel agencies and corporations (U.S. District Court, Central District of California). Such results were of absolute surprise for American Airlines managers: “What began as a necessary competitive counter to a precipitous action on the part of a major competitor has now evolved into a project of significant financial magnitude to American Airlines” (U.S. District Court, Central District of California).

This expansion of the business with travel agencies, quickly changed the distribution channel mix. Travel agents began accounting for an increasingly large portion of ticket sales and conversely airline city ticket offices, always regarded by the airlines as a costly expense, began disappearing. Another transformation was also occurring. Before automation, the

travel agents were regarded as agents of the consumers. With the introduction of compensation schemes that included features such as override commissions to encourage bookings on specific airlines, this relationship was seriously challenged.

A further boost to the development of the distribution systems was given by the Airline Deregulation Act of 1978 that introduced true competition into the airline industry in US. For the first time, airlines were allowed to change their route and fare structures in response to consumer demand and competitive pressures. With the absence of price regulation, carriers increased the number of fares made available to the public and the frequency with which they changed these fares (from semi-annually, to monthly, weekly and then daily). The Official Airline Guide (OAG) schedules and corresponding fare data publications were unable to keep up with this proliferation of information. In addition, the characteristics of consumer inquiries changed, from simple seat availability to price shopping, thus lengthening consumer interactions with independent travel and airline reservation agents. The introduction of these complexities had the effect of increasing the number of travel agencies connected to the CRS as travel agents found themselves without further options to cope with the introduction of this new airline pricing. By June of 1978, several thousand agencies were automated and competition between the major CRS companies for additional agency subscribers was fierce.

In substance, travel agents had the following benefits to use the CRS:

- It represented a great first **opportunity to enhance the level of customer service** as such systems gave them instant access to real-time availability and pricing information, as well as the ability to make instant bookings. To earn commissions on bookings
- **To earn override commissions**

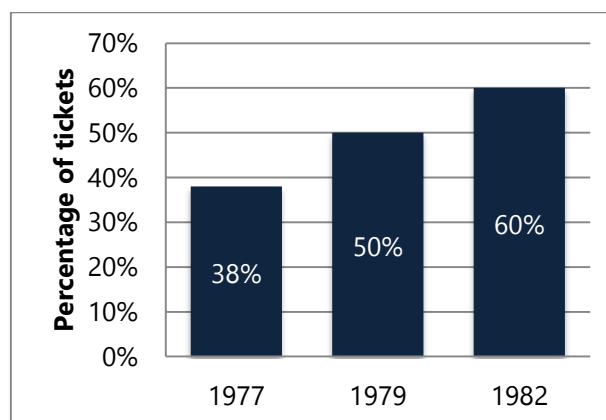


Figure 5. Percentage of US domestic tickets sold by travel agencies. Source: US DOT

Until the end of 1970's the CRS was strictly a US phenomenon. Only at this point European carriers as Lufthansa (with START) and British Airways (with BABS) started developing their own systems in the attempt of replicating the best practices of their American competitors.

1.4 1980-1990s: from CRS to GDS

As one could expect, airlines other than CRS owners couldn't suffer too long the anticompetitive practices put in place by the CRS owners. Continental Airlines complained that its discounted fares never made it into the display feature in Sabre. Later, a former senior member of the American staff stated under oath that a feature was programmed into the system that allowed these fares to be suppressed long enough for the management of American to investigate the viability of matching these fares (Petzinger, 1996). Display bias are evident in the figure below and its relevance can be best appreciated if one knows that 90% of bookings were made on the first screen and that in over 50% of the cases the booking made would be that of the flight at the top of the first screen (Shaw, 2007)

When queried for flights between Los Angeles and Cleveland on July 15, 1982 leaving at 7:00 AM, the first screens of the displays are as follows:

Sabre						Apollo					
	Airline	Flight #	City Pair	Depart Time	Arrive Time		Airline	Flight #	City Pair	Depart Time	Arrive Time
1	AA	166	LAXORD	0700	1238	1	UA	70	LAXCLE	1150	1900
2	AA	108	CLE	1317	1524	2	UA	66	LAXCLE	1100	1805
3	AA	446	LAXDFW	0720	1208	3	DL	486	LAXCLE	1130	1937
4	AA	254	CLE	1303	1628	4	CO	314	LAXDEN	0700	1005
5	TW	136	LAXSTL	0730	1254	5	UA	642	CLE	1115	1555
6	TW	482	CLE	1343	1608	6	UA	694	LAXDEN	0715	1025
						7	UA	642	CLE	1115	1555

PARS					
	Airline	Flight #	City Pair	Depart Time	Arrive Time
1	TW	136	LAXSTL	0730	1254
2	TW	482	CLE	1343	1608
3	AA	166	LAXORD	700	1238
4	AA	108	CLE	1317	1524
5	UA	70	LAXCLE	1150	1900
6	CO	202	BURDEN	0700	1015
7	UA	642	CLE	1115	1555

Source: CAB. Report to Congress on Airline Computer Reservation Systems. 1982, page 122.

Figure 6. Comparison of flight rankings in a CRS System.

Source: (Global Aviation Associates Ltd., 2000)

Travel agents soon joined the airlines' complaints. They were frustrated by the comparatively laborious and time-consuming process of booking a reservation on an airline other than the system owner and they were angry to contract the clauses that CRS companies demanded (Global Aviation Associates Ltd., 2000).

The years of large revenues made by CRS' owners with display bias, definitely ended in 1984, when the US Department of Transportation implemented regulations governing airline CRSs in an effort to eliminate display bias and preferential treatment for the airline owner. With this decision each CRS was requested to make public its algorithm for showing the order of the flight options (e.g. shortest elapsed times, flight times closest to the departure requested). This rules pledged the airline distribution until 2005. The European commission also enacted similar rules.

Since then, there were no major issues concerning the display availability but the debate remained on how airlines who made consistently investments could recover amounts as large of as 1 billion dollars as in the case of American Airlines (Shaw, 2007). The answer was simple: CRSs started to charge consistently other airlines for each booking made through their systems (2,8/3\$ for each segment). According to (Shaw, 2007), this had dramatic effects in the airline industry. At a time when over 40% of US travel agents used SABRE, CRS division became much more profitable than the airline itself. This clearly influenced American Airlines' managers to make new investments in the CRS business thanks also to an increased level of resources coming from the booking fees. At that time there were rumours of American to "achieve such dominance on a global basis. Had they done so, their ability to levy higher and higher booking fees would have been immense" (Shaw, 2007). To counteract this, different European airlines decided to combine their efforts and form consortia. This led to the formation of GALILEO and AMADEUS in 1987 that started their operations in early years of 1990's.

In these years and in the following, CRSs really became a widespread global phenomenon and thus not only limited to the USA. Starting from mid 80s a new actor emerged in the travel distribution scenario: the Global Distribution System (GDS). There were several reasons for this overseas expansion. First, to serve the new business travel marketplace more efficiently. Second, the airlines largest clients gradually shifted their focus towards international expansion as global airline alliances emerged. The distribution companies had to expand as well in order to continue playing a supporting role. Financial reasons also played a role. The risk associated with an economic downturn in one region of the world is mitigated. And, the CRS and GDS companies exhibited sizeable economies of scale and scope so expansion results in significantly increased profits. Initially, Sabre was predominantly based in the United States. During the late 1980s, Sabre and Amadeus entered into merger negotiations, which eventually failed. However, Sabre established a

European Division and began to look for other possible international opportunities. The first agreement was with Qantas, which began marketing the Sabre system in Australia as Fantasia. After its success in Australia, the company searched for opportunities in Latin America. At that time, American did not have a significant presence in Latin America or a strong partner to assist in the marketing of its CRS. Consequently, Sabre was not able to secure a foothold in this market, but in 1990, when American Airlines purchased Latin American routes from Eastern Airlines, this changed. Sabre began operations in Asia in 1998 after developing a long-term agreement with Abacus, Asia's primary regional CRS. Also the other CRSs gradually internationalised their presence and became GDS: Galileo was marketed in the Pacific region and by 1991 in Latin America as United acquired Pan Am routes'. Amadeus also successfully expanded into other regions of the world, thanks in large part to its national marketing company business structure. As of 2000 Amadeus became the most international system, with a presence in over 130 countries and 81% of its bookings coming from outside the United States (Figure 7).

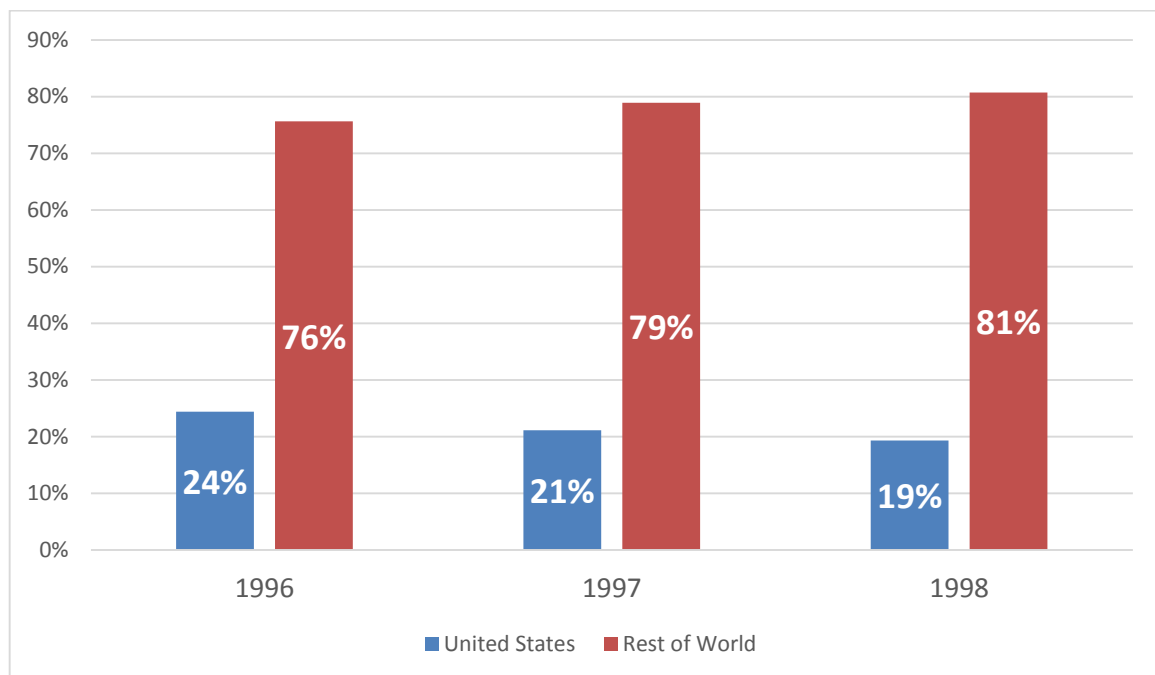


Figure 7. Amadeus geographical business mix. Source: Fitzgerald, C.

Similarly Worldspan, thanks to TWA network structure tried to establish a presence in Asia, thanks to an agreement with Abacus, the Asian GDS which lasted until 1998. As a result, in 2000 it had only a presence in 60 countries.

Another major development since the introduction of the CRS rules in 1984 has been the change in ownership of the major CRS and GDS companies. While many of the systems were

developed by airlines in conjunction with computer companies, the majority are now public companies with either no or a vastly reduced airline ownership role. In general, there have been two shifts in thinking surrounding this divestiture trend. First, with numerous U.S. domestic and international airlines selling their shares in GDSs, it is possible that government regulations evolved to the point where the strategic advantage in GDS ownership has been lost. The airlines that continue to hold on to their shares are generally seen as doing so for investment purposes rather than for strategic or competitive reasons. The second shift in thinking revolves around the ties between airlines and the GDSs. As the GDSs have transformed into more than just airline reservation systems, the close, nearly parental relationship between the two is no longer necessary.

As we have seen, distribution was largely influenced by developments in the airline business model. As global alliances between airlines emerged, GDS gradually adapted their products with the aim of offering a seamless integration between the carriers' flights in the booking phase.

1.5 Internet and low cost carriers: a revolution in travel distribution

In 1993, as exemplified by the graph in Figure 1, distribution costs reached their historical peak. At that time, airline distribution was dominated by large and concentrated technological players, owned by a restricted pool of airlines, that ultimately favoured the expansion of the indirect channels through incentive based commission systems (indirect sales accounted for three quarters of the whole airline tickets sold). As a result, distribution costs totalled 13% of US airlines passengers' revenues and something like 7.6 billion dollars was paid by US airlines for distributing their products, quite an astonishing figure for an industry of 60 billion dollars (Belobaba, Swelbar, & Barnhart, 2009).

This situation began to change by the early years of the 90's, when the global airline industry experienced a hard downturn as a result of the Gulf War crisis in 1991. It was in those years that airlines began to systematically find various ways to reduce costs and they soon directed their attention to the distribution costs that since these times were basically untouched by airlines' cost reduction initiatives.

In the attempt to generalise the dramatic wave of change in distribution practices that characterised the industry from the nineties to 2000's, 4 factors can be individuated as the ones who shaped the distribution:

- **Introduction of commission caps**

- **Development of interned direct and indirect channels**
- **Rise of the Low cost airlines phenomenon**
- **Changes in GDS ownership**

In the following subparagraphs, each driver will be analysed in detail.

1.5.1 Introduction of commission caps stop the distribution cost upward spiral

An historical decision was made in 1994, when Delta Airlines decided to stop the upward spiral towards unsustainable commission costs with the introduction of a commission cap system. This was “quickly matched by virtually all of its legacy airline competitors, which were eager to reduce the component of their distribution costs” (Belobaba, Swelbar, & Barnhart, 2009). Reductions in commission rates became the norm in the following years and this led by 2000 to a 44% decrease in commission costs despite a 37% increase in total revenues. Commissions in US domestic flights have largely been eliminated and the US industry achieved nearly \$3 billion in annual savings as commissions fell from 13% to about 5% as a percentage of revenue.

Similar initiatives regarded also Europe and other areas of the world but at a lesser scale. According to (ICAO, 2007), ticketing, sales and promotion costs accounted for only the 9% of world airlines’ total operating costs in 2005: a remarkable saving if this figure is compared with the 16.45% in 1992 and the 10.7% in 2002. This savings have been achieved thanks largely to the reduction in commission payments and GDS fees. However, the results achieved by US airlines in terms on distribution costs reduction have been only partially replicated by European carriers for two main reasons. First, they were not able to reduce commissions rates at the same rate of US airlines, since for European large carriers it was more difficult to implement such reductions in foreign markets, while it was relatively simple to exert their bargaining power in their respective domestic markets. The second important reason was related to the level of internet penetration, which in Europe and other parts of the world was consistently beyond US levels. This consistently reduced (and still reduces today) the effects of the innovations in the internet distribution with the result that the bookings made trough were consistently lower than the in USA (Belobaba, Swelbar, & Barnhart, 2009).

1.5.2 Development of interned direct and indirect channels

The 1990s have seen significant technological advancements that threatened the grasp GDSs had on airlines, travel agents and, ultimately, consumers. In combination with laws

prohibiting CRS/GDS limitations on third party suppliers of hardware, personal computers offered a chance for even the smallest of agencies to break away from the legacy technology of the CRS/GDS companies.

This combination of personal computing and the development of the Internet has opened up an entire new line of business to the global distribution companies. Sabre was the first GDS to realize the potential of the Internet. Its Travelocity product became operational in the beginning of 1996. Travelocity was the first comprehensive travel reservation system on the Internet, fully functional even before the airlines own websites introduction.

As a travel agency, Travelocity received commissions from airlines; typical commissions for online agencies (approximately 5% with a cap of \$10) were slightly lower than for traditional agencies. In addition to commissions, Travelocity's revenue stream included advertising fees from airlines, car rental companies, and other non-airline suppliers. Amadeus also launched its Internet product, www.amadeus.net, in 1997, making it a relatively late entrant. Galileo's online site was launched in 2000 after it purchased Trip.com. Worldspan has strategically elected to not launch a branded online travel agency of its own, however, it has developed a significant Internet presence by operating as booking engine for several sites including Expedia, the second largest online agency, and Priceline.com.

In general, there were four different types of services offered on the Internet by the actors of the travel distribution:

- **The web-enabled travel agency.** Each GDS offered travel agents Internet access and the software necessary to build and maintain its own website, as well as the ability to use the GDS on that website. 78% of agencies reported that they had Internet access in 1999, up from 56% in 1997. Initially, this regarded only the largest agencies (American Express, Carson Wagonlit, etc.), but soon the Internet has allowed smaller, regional agencies to compete on a more equal footing due to this capability (Global Aviation Associates Ltd., 2000).
- **The direct sale of inventory by suppliers.** One of the key drivers for this was securing cost efficiencies. Airline websites typically only offered booking capabilities on their own flights and, as such, they tend to have lower market shares than Travelocity and other online travel agencies. According to (Global Aviation Associates Ltd., 2000), a competitive site had a cost of nearly \$20 million to develop and an

additional \$4 million annually to maintain. However, it was estimated that the Internet was able to reduce distribution costs up to nearly 75%.

- The **online travel agency**, exemplified by Travelocity and Expedia which aggregated air, hotel, car, and cruise options into a “travel supermarket.” This type of agency is differentiated from the traditional agency as it is not a “brick and mortar” storefront. All of these agencies used a GDS for their booking capabilities and a “fulfilment” agency for ticketing, customer service and accounting related functions. These online agencies represented the “second generation” of Internet travel sites, those that facilitated consumer choice but were limited by their legacy architecture. After, there were other travel sites introduced online that used new business models, such as auctions, to allocate airline inventory, but many of these were struggling or joining the dot.com graveyard due to lack of capital. Sites of this type were generally considered to be the “third generation” of Internet development as they were much more consumer driven¹.
- The **portal**. In this particular travel website, the revenue stream is predominantly from advertising. Most portals signed exclusive agreements with online agencies or GDS companies.

1.5.2 Rise of the Low cost airlines phenomenon

The emergence of low cost carriers has been one of the most ground-breaking events in the whole history of the aviation industry. Carriers like Southwest Airlines and JetBlue in US or Ryanair and easyJet in Europe radically reinvented the airline industry and the distribution practices. In fact one of the central element of their business plan was to keep the distribution costs at a minimum by using only direct channels, their call center and then their website, taking advantage of the fact that they had no long-term ties with travel agents and GDS.

The LCCs (Low Cost Carriers) “phenomenon” had also a very important effect in the distribution practices of legacy airlines. Forced to sustain the aggressive price competition in their short haul routes, legacy airlines attempted to replicate the LCC’s distribution model by expanding call centres capabilities and developing brand new websites. However, they

¹ Priceline.com was an early trailblazer of the auction business model.

needed to heavily encourage their customers to book online, a quite daunting task as they needed to change the consolidated habits of quite conservative customers. Among the tools used by network carriers to push for direct channels there were bonus miles and the imposition of additional fees for tickets purchased through call centres and ticket offices.

1.5.4 Changes in GDS ownership

As mentioned in the previous paragraph, since the 1980s, airlines owning GDS started questioning their ownership in them. As some of these airlines during the 90's needed considerable amounts of cash, they began to sold their shares in the GDS either through an IPO (initial Public Offering), as American Airlines did with Sabre, either through a trade sale (Galileo).

According to (Shaw, 2007), this created much more unity among airlines in questioning the GDS power over distribution costs and policies. Nowadays all airlines are concerned with the reduction of GDS booking fees and engage themselves in hard negotiations with GDS, even if they are still owners of a GDS².

1.6 Distribution in the new millennium

As the travel industry entered in the new millennium, airline distribution followed the general trends that characterised the 90s. In broad terms, during the last years of 1990s there were a renewed interest by airlines in customer loyalty and customer satisfaction – a sharp move from the strong focus in cost reductions and alliance building that characterised the early years of 1990s. This was exemplified by a survey conducted by IBM among 119 airlines' senior executives that elected customer service and customer loyalty as the two topmost priorities to enhance financial performance (IBM, 1999).

However, business priorities changed soon as the economic downturn of the 2000 and of 2001 hit the airline industry, inducing a quick refocus on cost reduction initiatives. It was in this context that airline distribution regained positions among airline managers' agendas. Once again distribution was seen mostly as a way to reduce costs rather than a powerful strategic tool to improve revenue and customer experience. Even if there were many exceptions especially among the new LCC carriers, opportunities given by the internet and other technological advancements were often implemented in an inorganic way, by

² For example Lufthansa questioned in 2008 the Amadeus booking fees even if it has a significant stake in it.

alimenting the growth of isolated IT silos rather than building an integrated IT system, capable to sustain the airlines in the new web environment. Although this “implementation model” has been quite successful to permit airlines to profit of the internet boom, in the other hand the coexistence of different technological platforms across airline internal departments is one of the main causes of the weaknesses that characterise the airline distribution today and make it “less advanced” in e-commerce practices compared to other industries.

Even with such “incoherent” approach to IT planning, many airlines in the world managed to increase consistently the bookings made online and to shorten the time for electronic ticket adoption. However, the former did not happen at the expected pace as desired by airline executives: in 1999 the 43% of the world’s leading airlines executives projected that by 2003 they would had sold over half of their tickets online (Ebbinghaus, 1999) but in 2004 they hardly the half of the expected (29.5% in US, 15.2% in Europe and 7.2% in Asia of the total tickets were sold through airlines’ own websites). Within this general trend some airlines performed better, notably the low-cost airlines (e.g. easyJet recorded an astonishing 96%, up from the 10% of 1997) (Doganis, 2006). Among conventional airlines, British Airways and Aer Lingus performed better than their peers: the British carrier reached over 50% in 2004 in its European flights bookings, while the Irish flag carrier increased to 48% worldwide, up from the 2 % in only 2.5 years after the market collapse of the September 2001. While these airlines managed to push extensively the reach of their own website, other airlines still achieved decent online sales shares, by deciding to use primarily other travel websites. Thus, while 20% of airlines covered in the 2004 IT survey did not sell at all through their own website, these same airlines on average sold 14% of their seats through third-party online sites (Airline Business and SITA, 2004).

According to (Doganis, 2006), the development of e-commerce practices in airline distribution during the first decade of the new millennium was influenced by 4 drivers, in part similar to the forces that shaped the distribution in 1990s:

- **Pressure to reduce distribution costs.** Started in the 1990s, the need for distribution costs’ reductions has characterised the whole decade and still characterise the current times. Given the decline in yields, airlines looked consistently to reduce distribution costs that in 2002 represented the 14% of IATA airlines total

operating costs³ (Doganis, 2006). In particular, airlines pushed for the development of their direct channels as they realised it was a powerful way to reduce commission costs paid to travel agents and to GDS, that according to (IATA, 1996) in 1996 they respectively represented the 42.8% and the 7.1% of the total distribution costs. If these savings are coupled with those coming from electronic reservation and ticketing processing, call centres, sales personnel and advertising it can be easily appreciated the strength of the arguments that led many airlines to seek further opportunities in e-commerce in these years. America West, a medium-sized US carrier claimed in 1999 that by going direct it could reduce the distribution costs from \$23 to \$6 per ticket sold (Airline Business, 1999).

- **Disintermediation**, the trend that characterises the travel distribution since late 1990s, “aims to bypass travel agents or other intermediaries, so as to link the airlines directly to customers” (Doganis, 2006). The historical reasons for such move, which will be discussed in more detail in the next chapter, not only were related to the pressure for commission reduction but also to the weakening of the relationship between travel agents and customers. As internet usage increased exponentially among developed countries, leisure and business customers became more and more autonomous and aware about travel planning. This meant that the traditional role of the travel agent was eroded and airlines didn’t see the reason why they had to “subsidize” travel agents through commissions’ and onerous traditional sales activities.
- **The desire for increased marketing power by airlines.** To some extent related to disintermediation, it was also the airlines’ desire for more control of the customer relationship to speed up the e-commerce development in the airline industry. E-commerce offered an unique opportunity for airlines to engage directly with customers at a relatively low-costs. Fare promotion, data collection on consumer behaviour, brand promotion, travel information, business travellers’ expense monitoring services, loyalty schemes promotion are only some of the activities that online websites permitted to manage without intermediaries at a lower cost. Consequently, e-commerce not only produced big changes in the distribution chain of the aviation and travel industry but also in the airlines’ strategy that became much more customer-centred than ever.

³ For some airlines distribution costs represented the 17/18% or even more (Doganis, 2006).

- **Developments in airline pricing.** It has been remarked in paragraph 1.3, how much pricing and distribution developed together. The deregulation act of 1978 it is a clear example of that, as it shows how the “regulatory” possibility of “dynamic” pricing together with the technological capabilities of airlines’ CRSs permitted to adapt pricing and network decision to the developments in the demand. This was also true in the early years of 2000s, when revenue management systems improved consistently. This innovation was at the same time possible because of the existence of mature online distribution channels but it also represented a further reason for airlines to improve their direct distribution channels, in order to better promote their fares to customers.

1.6.1 Recent trends in airline distribution costs and their impact on carriers

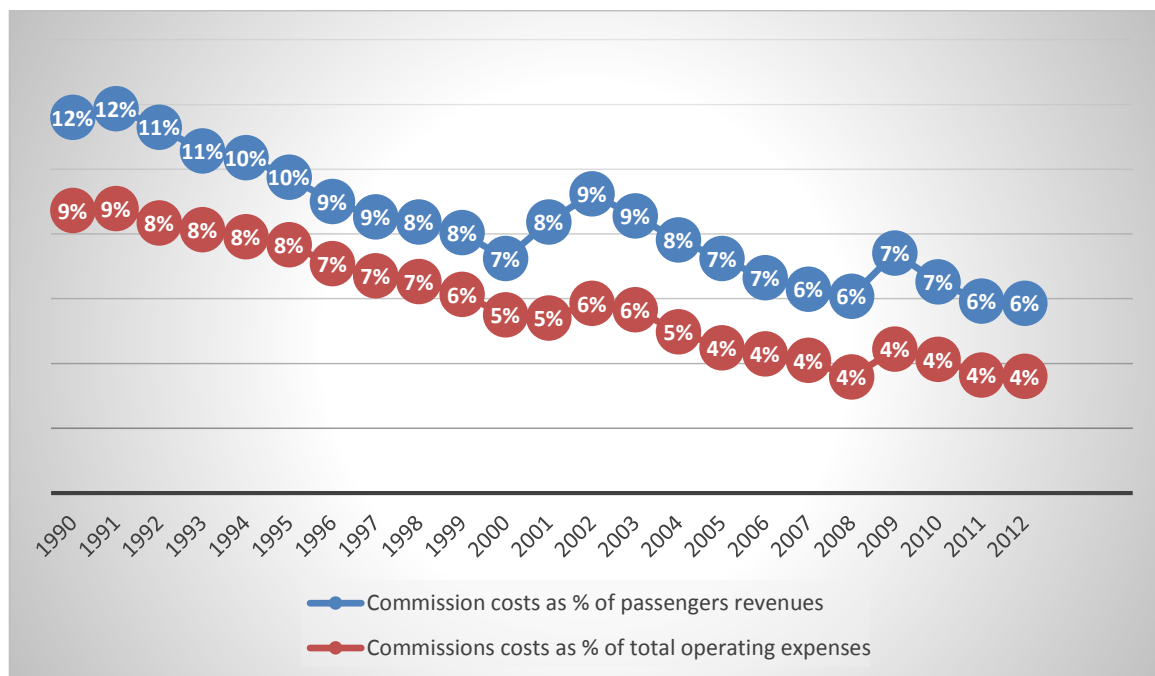


Figure 8. Evolution of commissions costs for largest U.S. airlines.

Source: Analysis on US DOT form 41 data

The latest evolution of passengers’ commission costs presented in the figure above confirms the pattern individuated in Figure 14: commission costs halved in 20 years as an effect of the rise of direct channels and today represent a low 6 % of total passenger revenues and 3.6 % of airlines’ total costs.

⁴ Percentages are different with those of the figure 1 as a result of the different sample analysed.

By closely analysing the CAGR for the first 10 years and the latest 10 years it can be observed that commissions costs reduced at a halved rate, meaning that the “big” distribution costs reduction from indirect channels happened around the nineties. This reinforce the idea shared by some industry players that the benefits of further negotiating agreements with third party distributors will be lower in the future and the solutions have to be found elsewhere.

It seems that there is not considerable relationship between the commissions’ costs and the level of expenditure of advertising, meaning that the greater reliance over the direct channels didn’t necessarily translated in an augmented marketing effort. Instead advertising and marketing budget seemed to remain on the same levels without any large variation.

Chapter 2. The distribution dilemma: analysis of the current scenario

Nowadays, the distribution of the airline tickets is based on direct channels and indirect channels. As exemplified in Figure 9, direct channels comprise airline websites and call centres while indirect channels comprise 3rd party online and offline travel agents and travel management companies. Each actor of the airline and travel distribution will be analysed in detail in the next paragraphs, together with the pros and cons from both the airline and the customer viewpoint. The ultimate aim of this chapter is to give a comprehensive overview on the current status of airline distribution, in order to derive interesting insight useful to forecast the emergent distribution model of the future, which will be discussed in the third chapter.

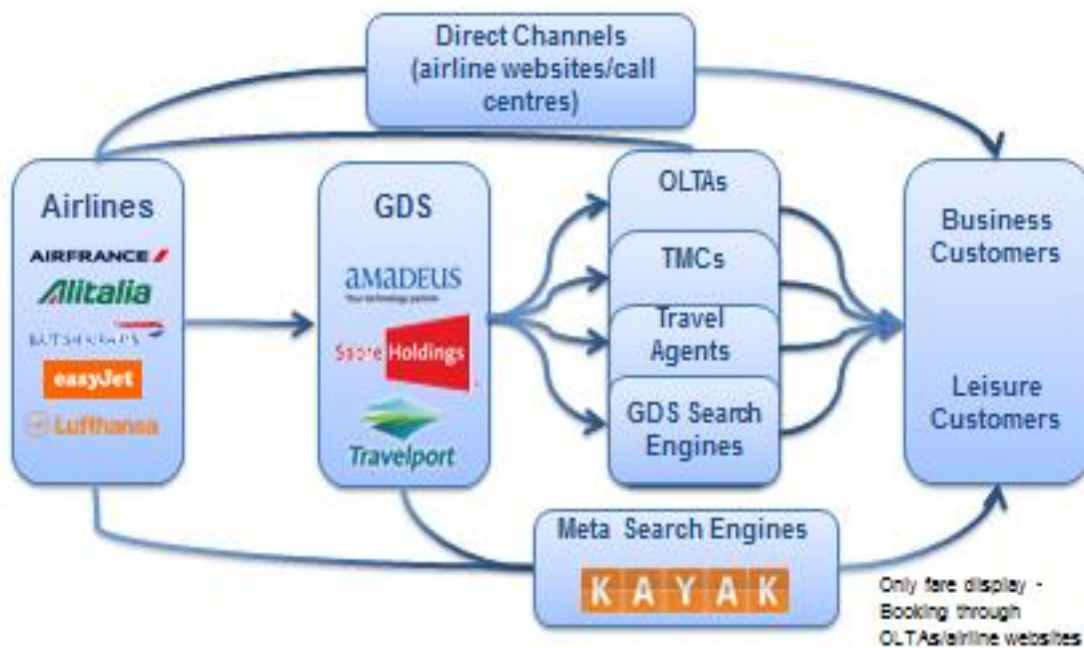


Figure 9. The airline distribution AS-IS

2.0.1 The share of direct and indirect channels against total airline distribution

While direct channels are growing at a fast pace, indirect ones are still a pillar of the airline distribution and will probably hold this role also in the future. According to (Miller, 2011) nearly 60% of distribution is carried through indirect channels leaving a remarkable 40% to be sold through direct channels.

Another estimation carried out by (Atmosphere Research, 2012), highlights that 55% of the of the tickets sold by a sample of 24 network/flag airlines and LCCs with revenues exceeding \$1 billion are distributed via direct channels, the majority of this through online direct channels. A similar percentage is accorded to the GDS channel that still represents a cornerstone of the airlines' distribution worldwide.

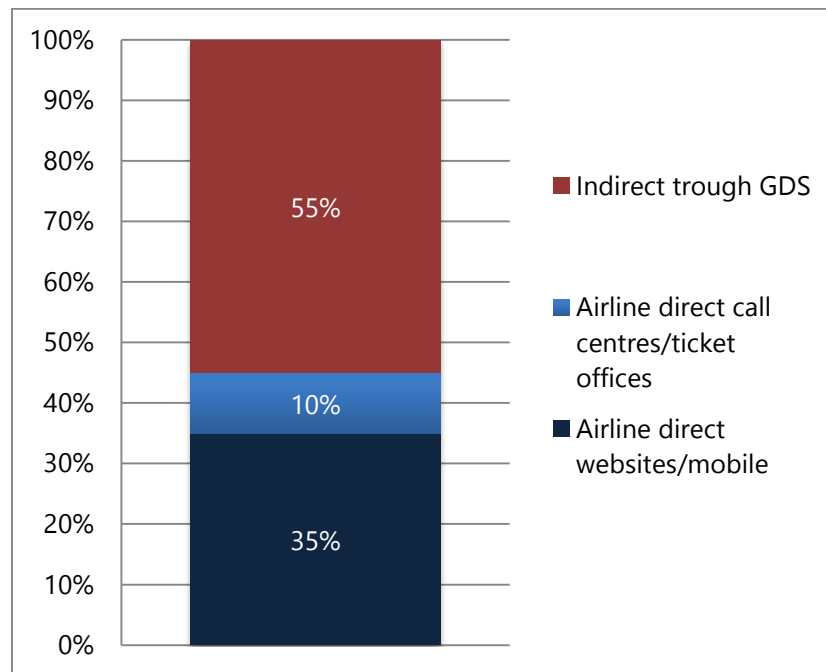


Figure 10. Airline distribution per channel (Volume).

Source: Atmosphere's Global Travel Industry survey of 24 network/flag carriers and LCCs

This global result, as can be expected, varies greatly if LCCs and network carriers are examined separately. Therefore it can be appreciated the greater role of GDSs in the legacy carriers business model and the marginal but still necessary role in the LCC model. This leads to conclude that although all the attempts of the full service carriers to adopt the LCC distribution model, still a lot has to be done and it seems to be not very credible to imagine a near future without GDS⁵.

⁵ For more insights on this topic please refer to chapter 3

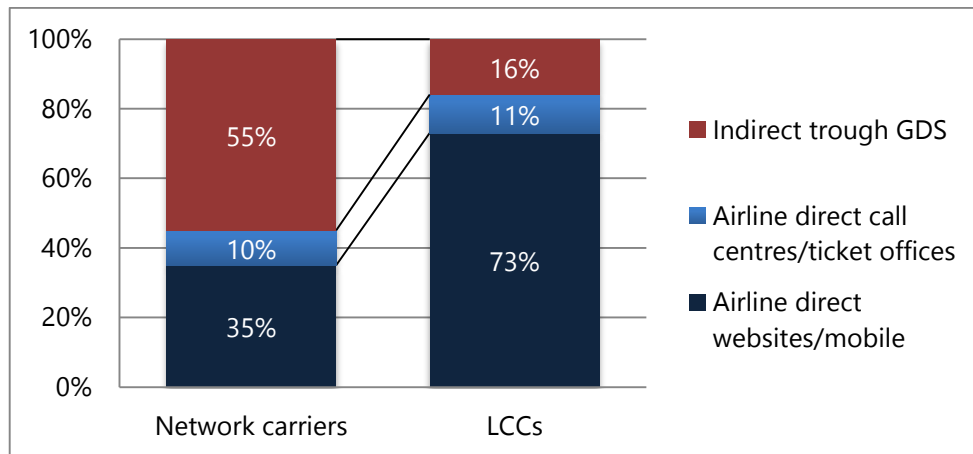


Figure 11. Differences in distribution channels among Network carriers and LCCs.

Source: Atmosphere's Global Travel Industry survey of 24 network/flag carriers and LCCs

However having a precise estimate of the share of the direct and indirect channels is very difficult to obtain since different measures are available and data, especially on direct distribution, is not uniformly available around the world. By the way, a good indicator of the strength of those two channels in the current distribution framework can be derived by analysing the GDS market share, as they manage nearly the majority of the air tickets bookings sold through indirect channels.

Despite the rise in consumer bookings via airline websites over the past decade, the GDSs continue to handle the majority of air travel revenues. According to (PhoCusWright Inc., 2009), they processed more than 376 million air transactions in the U.S. in 2008, representing nearly two thirds, or 64%, of all airline passenger revenue (see Figure 12).

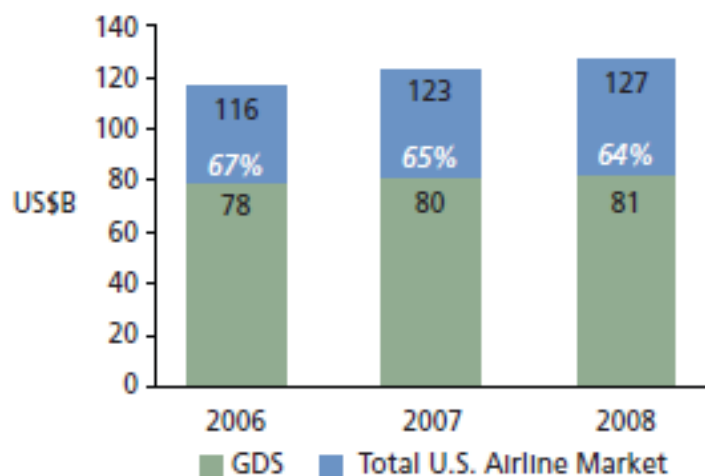


Figure 12. U.S. Airline Gross Sales & GDS Share (2006-2008).

Source: PhoCusWright (2009)

The GDSs retain a smaller but still substantial share of total airline sales in Europe. They processed more than 276 million air transactions in 2008, representing €49 billion and 47% of total air sales (see Figure 13). GDS share of sales declined more quickly in Europe following the surge in growth among low-cost carriers (and some tour operator charter airlines), which have largely pursued a consumer direct distribution model.

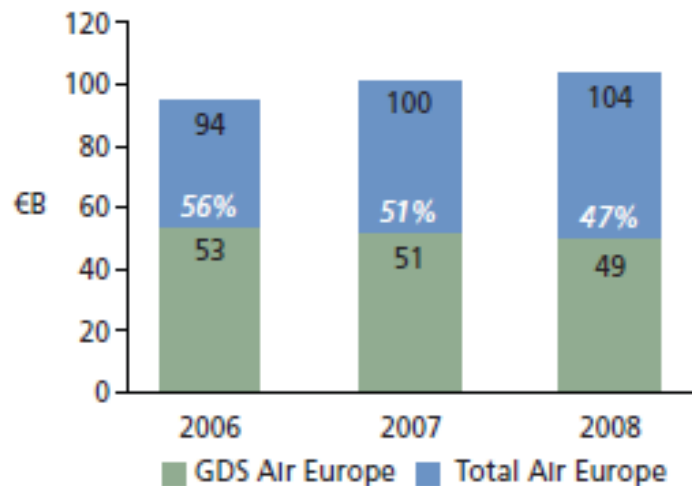


Figure 13. Europe Airline Gross Sales & GDS Share (2006-2008).

Source: PhoCusWright (2009)

Among the different travel suppliers, the airlines are those where, for obvious historical reasons, the GDS share is the highest. In fact hotel bookings, traditionally handled by phone or by person, are not a primary supplier for GDSs: in US GDSs share of hotel revenues is 12% and in Europe it is a mere 4% (PhoCusWright Inc., 2009).

Another insight that arises from analysing the graphs is that GDS share in both Europe is declining as effect of the disintermediation.

In the other region of the world the penetration of direct and indirect online bookings is consistently lower but many analysts are confident about the potential of the online channels to boom in the coming years. In these areas of the globe, indirect and direct “offline” channels still constitute the backbone of the distribution system, thus making GDSs the only viable solution for distributing tickets of European and US airlines.

2.0.2 The cost of distribution per channel

Concerning the costs of distribution, it seems obvious that direct channels offer better yields for the airlines: airline websites, call centres and ticket offices guarantee some of the highest yields on the market. In the other hand, indirect channels results are very different. While travel management companies rank as the highest yield channel (given their peculiarity of

tapping into the profitable corporate market), online travel agencies are far from the yields granted by the direct online channel.

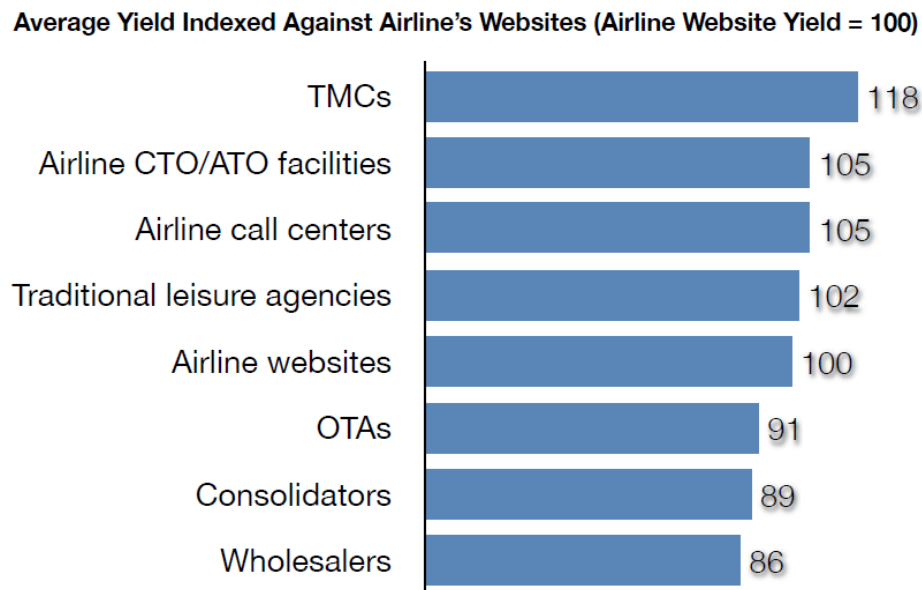
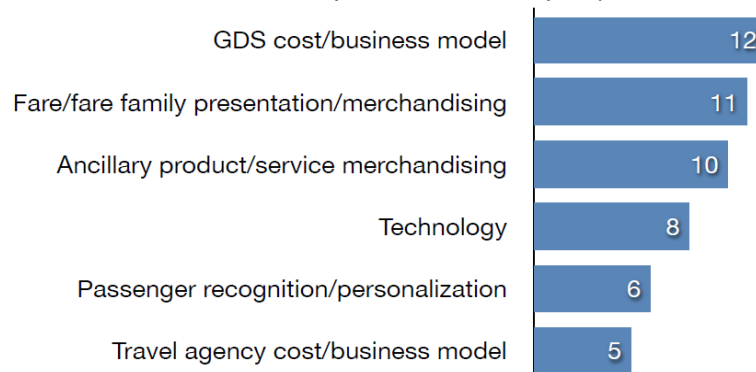


Figure 14. Yields for distribution channels.

Source: Atmosphere Research 2012

As it has been seen in chapter 1, since long time the cost of distribution is the main issue that most frustrated the airlines. This is particularly true in the current times, where most of airlines are forced to quickly implement radical changes to their cost structure, to face the difficult economic situation and the increasing competition caused by the development of LCCs. According to an IATA commissioned research (Atmosphere Research, 2012), the most pressing issue for airline executives is represented by the GDS fees while technology and personalisation trends in customers' behaviour seem to matter less (Figure 14). This confirms the belief that airlines tend to look after distribution channels mostly on the base of the costs while less emphasis is devoted to the benefits that some indirect channels usually provide.

“Thinking about third-party distribution, how much of a concern are the following” (Number who answered in the top two boxes for each response)



Source: Atmosphere telephone interviews with 15 airline marketing/sales/distribution executives

Figure 15. The top-ranked issues in airline distribution according to airlines executives.

Source: Atmosphere Research 2012

This “frustration” can be more understandable if the profit margins of the actor of the travel distribution chain are analysed. One argument often used by airlines and reported in the (The Economist, 2012), focuses on the fact that airlines are the ones who enjoys the worst profit margins of the whole value chain, somewhat pressed by the far better margins of aircraft manufacturers in the upper-stream chain and of GDS in the downstream chain.

GDSs costs vary according to the geographical region of the airline and according to which markets the airline intends to be distributed. More details about this issue will be provided in chapter 3.

However, concerning GDS costs, a comment needs to be made. Booking fees do not constitute the only GDS cost that an airline has to sustain. The costs associated to the distribution of airline content through GDS are in fact formed by the:

- **Booking fee**, which represent the majority of the total cost.
- **Special requests fee**, due by airlines for each special request forwarded by passengers (e.g. special assistance, special meal onboard, etc.)
- **Availability request fees**, charged to the airlines for each request of availability forwarded by a travel agent, even if in the end no booking is made.

As a result, it becomes clear that one of the KPI that airlines distribution managers pay particular attention is the look-to-book ratio. According to (IBM Institute for Business Value, 2011), this KPI is absolutely critical also for the direct distribution: “As providers seek to promote their differentiated offerings, they must also contend with escalating costs, even

in those channels they own. As they have become more successful in getting customers to book travel directly on their websites, they have seen a dramatic increase in the ratio of website “hits” to completed bookings. The ten-fold increase many providers have observed in the all-important “look-to-book ratio” is costly, however. Providers must scale websites to meet this dramatically higher level of traffic, even when the revenue generated through this channel is growing at a much slower rate. Ironically, one of the primary drivers of the rapid increase in look-to-book ratios is the proliferation of travel distribution intermediaries, whose sites are designed to look at inventory through provider websites, while bypassing GDSs. Travel providers who cannot control and limit such searches will continue to be exposed to the higher costs required to support increasing look-to-book ratios.”

Another pressing issue as highlighted by the (Atmosphere Research, 2012) survey, is related to the presentation of the fares and the ancillary services in GDSs and third party websites (e.g. OTA). This highlight one of the main concern of airlines towards indirect channels: not only these channels are costly – but often necessary – but they are also too much “neutral”, in the sense that any marketing effort of the airlines is thwarted as the GDS screen only shows availabilities and price, leaving no room for differentiation among airlines products⁶.

2.1 Direct Channels

Direct channels are all the distribution channels directly owned by the airline or that are managed without the help of an intermediary.

Historically, it has been noted that direct channels always vested an important role even if their reach has always been limited if compared to the global one of the indirect channels. However, the combination of low costs of sale and the possibility of direct control over the merchandise of the products has made this channel the preferred ones by airlines.

Among this category are generally comprised the following:

- Airline **website**

⁶ See paragraph 2.2.1

- Airline **mobile channels**
- Airline **social media**
- Airline **call centres**
- Airline **airport tickets' offices** and **airline city centre tickets' offices**

As airlines are continuing to expand their ticket distribution through direct channels, emerging sales channels such as mobile and social media will have a significant impact on future growth in direct sales. In the past, selling on an airline's website has been crucial to driving the transition to direct distribution. Although sales through airline websites will continue to see growth, selling via smart phones is set to become an almost equally important sales channel in the future, at least according to what airlines IT executives think now (see Figure 16).

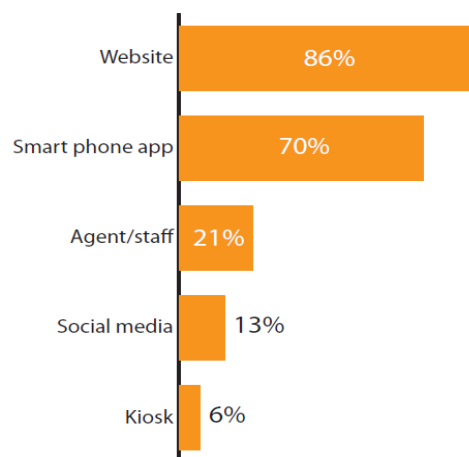


Figure 16. Dominant channels for direct sales beyond 2015 according to 200 airlines IT executives.
Source: SITA, Airline IT Trends Survey 2012

According to (SITA, 2012), nine out of ten airlines are planning to sell tickets via mobile phones by 2015, establishing mobile as a mainstream distribution channel for airline tickets. Growing from zero just a few years ago, mobile phones as a distribution channel are expected to generate significant growth in years to come. Today around 51% of the airlines interviewed in the survey already offer the possibility to book flights online and in accordance with an (Amadeus, 2011) report, 16% of the travellers surveyed currently book trips via their mobile phone.

Mobile channels offer for airlines the opportunity to profit from impulse buying and to sell ancillaries services in all phases of the customer's travel experience.

Globally speaking, airlines ancillary services are now a consolidated phenomenon across airlines and until recent times the sales of this kind of services was primarily conducted via airlines' websites, call centres or at the airport. The survey also shows a significant increase in the number of ancillary services airlines across the world plan to sell via mobile phones in the future. 83% of airlines have the ambition to sell ancillary service on smart phones by 2015. The list of services sold on mobile phones will replicate the airlines' website sales functionality (Figure 17).

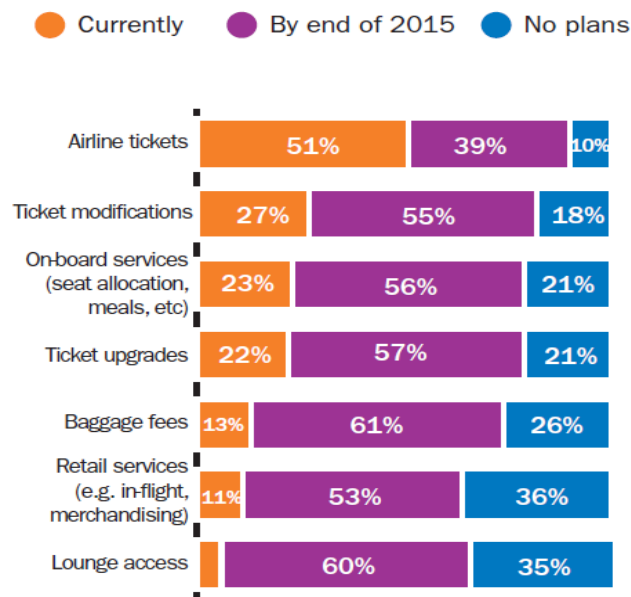


Figure 17. Sales via mobile phone.

Source: SITA, 2012 Airline IT Trends Survey

Another interesting area of development is the social media one. Airlines are already questioning itself on how to evolve their social media strategy and increasing the sales' conversion per visit. Apart from using social media as a tool to direct traffic to the airline website, many different carriers have started experimenting applications that allow, for example, to buy directly from the Facebook page (e.g. Malaysian Airlines).

2.1.1 Pro and cons from the airline viewpoint

Table 1. Pro and cons from the direct channels from the airlines point of view

	Pros	Cons
Airline viewpoint	<ul style="list-style-type: none">• Lower distribution costs• Fostered development of revenue management systems• Permit to engage in a loyalty relationship with customers• Permit to personalise the customers' booking experience• Permit to sell ancillaries	<ul style="list-style-type: none">• Shift of market power to customers:<ul style="list-style-type: none">◦ Commoditisation• Worsening relationships with airlines and travel agents• Inability to target business customers

Clear are the benefits that an airline can enjoy when it adopt direct channels for their sales. Basically, these channels permit countless opportunities for differentiation, personalisation, upselling, cross-selling and loyalty development at the lowest cost of the whole distribution value chain.

For (Doganis, 2006), e-commerce development, while it made air travel easy, affordable and to a certain extent more profitable for the airlines, it had also two downside effects for airlines:

- **It gave more power to the customer.** In particular, e-commerce give the possibility to access rapidly all available fares in many markets making customers more incline to switch supplier and it enables airlines to respond both globally and instantaneously to fare changes. This last had heavy effects on the pricing: in many markets, especially the ones characterised by overcapacity, prices change very often and lead the airlines, in many cases, to lose the control of fares and leave pricing to market forces, with the result of increasingly lower yields.

This phenomenon is progressively causing the commoditisation of the air transport. The more the availability of low priced fares available instantly, the less customers value other amenities and air travel to destinations of less 4-5 hours flight-time becomes a commodity, a simple seat between A and B at time X.

- **It worsened the delicate relationships between airlines and travel agents.**

E-commerce development made possible for airlines to bypass their intermediaries in both business and leisure markets. The closure of business deals with companies, the increasing push that airlines put in their leisure online direct channels together with the reduction of commissions had negative effects on the business of the smaller travel agents, thus worsening airline-travel agent relationships. Travel agents are now trying to reposition themselves as highly valued travel consultants (Amadeus, Oxford Economics) and they could still be of great importance in the future. Nevertheless, travel agents are still of fundamental importance to ensure distribution in determined areas in the world (e.g. Asia) or to intercept ethnic travel (e.g. Chinese travel agents in Italy that serve the Chinese community in Italy).

In addition to this two issues, it must be pointed out that despite attempts, direct channels have mainly remained a leisure phenomenon. Two main reasons explain why airlines have failed to consistently attach business customers with their online booking capabilities:

- Travel managers/agents/secretaries wants comparability and, unless the company is interested in few routes operated by the same airline and it is committed to the airlines trough travel plan, they cannot afford to plan a business trip through airlines websites.
- Increasingly, a larger percentage of companies is going to adopt travel policies (Airplus, 2012) and GDS is vital for this. In fact, “they perform valuable functions across the reservation life cycle of most corporate travel transactions and assist with the complex ecosystem of technology services among corporate agencies and corporate travel departments. They integrate with TMC mid- and back-office processes, including quality control of reservation files, automated services to check policy compliance and availability of better fares or seats, and accounting and reporting” (PhoCusWright Inc., 2009). As “bookings that fall outside the GDS have a higher likelihood of going un-captured or requiring manual intervention to push through mid- and back-office processes”, GDS is the most usual booking channel for airline tickets for the 97% of the US corporate travel agents (PhoCusWright, 2009).

2.1.2 Pro and cons from the customer viewpoint

As (Belobaba, Swelbar, & Barnhart, 2009) have defined, the development of direct online channels has made “simultaneously simple and more complicated” making travel arrangements. If from one side customers can now access to the majority of the global airline

inventory 24 hours a day by simply connecting themselves to airline websites either via a PC or via mobile phone, the simultaneous presence of multiple suppliers websites, with some of them (typically LCCs) that do not distribute their content via other 3rd party aggregators, has made the travel search for the lowest fare lengthy and difficult. (IBM Institute for Business Value, 2011) cites that 5 hours is the time needed by 20% of the travellers to arrange their travel plan and on average 22 websites are consulted before booking (Google, s.d.). While a portion of this excessive amount of the time that some travellers dedicate to travel search can be attributed to a simple inability to find what they are looking for, external assessments of travel websites suggest that few are designed for maximum efficiency. In its annual “Digital IQ” ranking, think-tank L2 determined that only 8 percent of travel websites qualified for the “genius” classification, and fully 60 percent of travel websites were in the “average,” “challenged” or “feeble” categories. This has detrimental effect on customer satisfaction: after spending relatively large amounts of time shopping for and booking travel on websites that are not as good as they could be, many travellers become convinced they overpay for the services they purchase. In fact, across all segments of the IBM survey, only 10 percent of respondents felt they received a good deal in shopping and booking their last trip.

Surveys confirm travellers are dissatisfied. The travel industry consistently ranks near the bottom of all industries in the American Customer Satisfaction Index’s annual cross-industry customer satisfaction comparison. In 2011, hotels were ranked 1st out of 47 industries, and airlines tied for last place for the second consecutive year.

“In the eyes of many customers, travel has become a burden, not the relaxing, stimulating, rewarding experience to which many travel providers aspire” (IBM Institute for Business Value, 2011). According to a 2010 survey of over 1,000 global travellers, four of the top eight words most associated with travel were negative – such as “frustrating,” “unreliable,” “infuriating” and “broken”.

Even if the travel planning for customers is becoming not so easy, it is evident that direct channels development have contributed to strengthen the role of the customers in the relationship with their travel suppliers. The rapid accessibility of information, caused by the greater phenomenon of the e-commerce development in the whole global travel industry, had the effect of spreading a large amount of information to customers, giving them the possibility to quickly switch between suppliers much more easily than before.

Table 2. Pro and cons of the direct channels from the customer point of view

	Pros	Cons
Customer viewpoint	<ul style="list-style-type: none"> • Accessible way to book travel worldwide and 24h • Provided more market power to customers and transparency • Possibility to customise the travel experience 	<ul style="list-style-type: none"> • Difficult to compare products • Websites not always ergonomic

2.2 Indirect channels

As indirect channels are intended all the distribution channels that involve the presence of an intermediary.

Among this category are generally comprised the following:

- **OLTAs** (or OTAs that stands for Online Travel Agencies), that offers airline products often in conjunction with hotel and other components of the travel. They are predominantly leisure-oriented and their business model is based on the commissions earned by the customers at the moment of the booking and revenue coming from advertising. They are often the first website that customers consult when they search for the best travel option (see Figure 19) and the bigger ones retain strong brands that are often more known than the one of the vast majority of the airlines. Content is provided by GDS and often directly by airlines. There are several hundred online travel agencies in the U.S. and Europe However, the four largest OTAs – Expedia, Orbitz Worldwide, Priceline, Travelocity and their affiliated sites – represented some 96% of all online travel agency sales in 2008 (PhoCusWright, 2008).
- **Travel Management Company** (TMC), like American Express or Carlson Wagon-Lits, is a type of travel agency that provides management and consulting services for corporate travel programs, which may include contract management and procurement, expense reporting, and program development and oversight, as

well as more conventional travel agency services, such as booking and fulfilment of travel.

- **Corporate Travel Agents**, smaller companies devoted to manage travel arrangements for firms.
- **Leisure Travel Agencies**, a retail storefront or office-based travel agency business.
- **Wholesalers**
- **Meta-searches and GDS Search engines**, are search tools that sends user requests to GDS, OLTAs' engines and sometimes airlines' feeds. They aggregate the results into a single list or displays them according to their source. Meta searches generate revenues through advertising and charging OTAs for referring clients. Customers then can purchase the travel product via OTAs or by accessing the supplier website. Potentially they are sometimes seen as the replacement of the GDS but their technology in handling and displaying the content is not mature yet. However, GDS companies closely monitor the development of these websites.

GDS can be considered as the “motor” that power the vast majority of the indirect distribution. The GDS role in the indirect travel distribution has been sufficiently treated in chapter 1, but what has to be still pointed out is the high level of consolidation of this industry. If one looks at

Figure 18, it can be appreciated how the industry progressively consolidated in the last decade. Today, Amadeus and Sabre dominate the scene while Travelport is gradually declining (Hotelmarketing.com, 2013) and Abacus is still retaining a strong foothold in Asia.

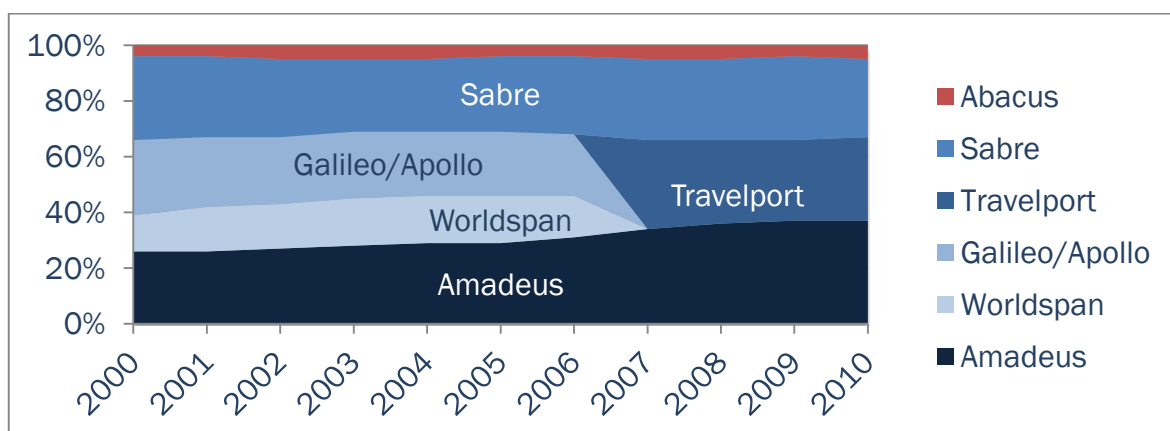


Figure 18. Four GDSs now control the whole market.

Source: Amadeus

2.2.1 Pro and cons from the airline viewpoint

Table 3. Pro and cons of the indirect channels from the airlines point of view

	Pros	Cons
Airline viewpoint	<ul style="list-style-type: none">• Geographic reach• Must-have channel to reach high-yield business customers (TMCs etc.)• Can intercept a large customer base	<ul style="list-style-type: none">• Costs (GDS and agencies commissions)• Fare presentation/merchandising• Ancillary product merchandising• Technology• Passenger recognition and personalisation

As already reported in 2.0.2, airlines tend to focus predominately on some cons of the indirect channels, without carefully analyse the remarkable value they can extract in exchange for the payment of the fees. In many part of the history of the airline distribution the focus has been on cost with limited thinking of the impressive amount of revenues gained thanks to infrastructure like GDSs. As reported on (The Economist, 2012), Svend Leirvaag, an executive at Amadeus, argued that “it’s a pity the airlines fixate so much on GDS fees, which at around 2% of their revenues are much less than the money the industry could save by fighting such things as ever-increasing travel taxes and the unfair subsidies that prop up some state-owned carriers”.

However, airlines’ frustration towards indirect channels costs is explained by the fact that the value they get it is often not satisfactory if compared to the level of the fees paid. Figure 14 perfectly highlighted the problem: only TMCs that can tap into business market could be seen as valid partners worth of investing millions in GDS commissions, while leisure travel

agencies are seen mostly as declining partners and OTAs do not provide high yield because of the GDS and OTA compensations⁷.

The problem is not only related to the current level of commissions but it has to do also with how the fares and product merchandising is displayed through this channels. As (Atmosphere Research, 2012) reports: “airline executives are also unhappy with what they perceive as inadequate transparency of fare families and ancillary product merchandising in GDS-based distribution channels - particularly OTAs. Unlike airline websites, which present all fares and offers, third-party intermediaries generally provide only limited airline content - generally just the lowest fare available, and links to checked baggage fee information”. This frustration is tangible in airline executives word, collected below from the (Atmosphere Research, 2012) report for IATA:

“Our website presents multiple fare families. We’ve improved the [user interface] to help with up-selling and how we present ancillary products. Take-up rates for some of our ancillary offers exceeds 20%. We get none of that - zero - on the OTAs.” *Director, eCommerce, US-based network airline*

“Distribution is about transparency. In retail, the stores must present merchandise the way the brands want. Airlines have no control over presentation or merchandising in GDSs and OTAs.” *Vice President, Distribution, European network/flag airline*

“GDSs and travel agencies that can’t or won’t sell our ancillary products the way we want will find that they’ve becomes invisible to us.” *Managing Director, eCommerce, European network/flag airline*

In the last years many different airlines reduced or totally excluded indirect channels from their distribution. This is particularly the case of the LCCs, like easyJet or Ryanair, that had decided since their foundation to not distribute through GDS. This radical position has been smoothed through recent years. As LCC model is gradually converging to the full-service one, some low cost airlines tended to reconsider their distribution policies with an unprecedented favour towards indirect channels. The most exemplar case is the easyJet one: in the attempt of tapping into the business segment, the UK airline finally decided to offer

⁷ Frontier Airlines states it costs the airline US\$1.60 to process a four-segment itinerary through its website, while selling the same journey through an online travel agency can cost between US\$20 and US\$26. (“Cheapest Airfare May Be On Airlines’ Own Website,” , 2012)

their schedules on GDS as they realised that couldn't strongly achieve position in this profitable market segment without the only support of direct channels⁸.

Of lesser importance for airlines executives is the personalisation and passenger recognition issue. In an age where it's sometimes difficult by the airline even to contact the customers for communications strictly related to the flights because of some reluctance of travel agencies to provide the email address of their customers (this can be considered another downside effect of disintermediation), it appears clear that passenger recognition and personalisation in indirect channels issues are far to be resolved in the near term. Moreover, faced with the urgency of lowering distribution costs, it seems that airlines' commercial managers have little time to devote for solving this problem.

2.2.2 Pro and cons from the customer viewpoint

Table 4. Pro and cons of the indirect channels from the customer point of view

	Pros	Cons
Customer viewpoint	<ul style="list-style-type: none"> • Comparability • Possibility to arrange the entire the travel plan (dynamic packaging) • Directly embedded with business travel policies and processes 	<ul style="list-style-type: none"> • Costlier than direct channels • Difficult to compare different airlines offering because of the issues in fare presentation/ ancillary presentation • Difficult to buy ancillary product

Indirect channels provide the greatest benefit to the customers by comparing thousands of travel solutions in an easy and accessible way, which is the reason why often customers prefer to book through these channels (see Figure 19). They can provide with the ability to build a customised package (dynamic packaging) or to be integrated with companies' travel policies and processes in the case of business travel that makes. This, by the way, comes at a cost. As obvious, usually travel intermediaries require a fee thus making the travel choices by these channels costlier.

⁸ See (easyJet, 2007)

However with the disintermediation “process” already ahead, it’s not always possible to compare exactly all the travel options available in one shot. Even meta-search engines like Kajak are not completely useful for this task if the content coming from airlines non distributed through GDS is not directly fed by the airline itself into their system.

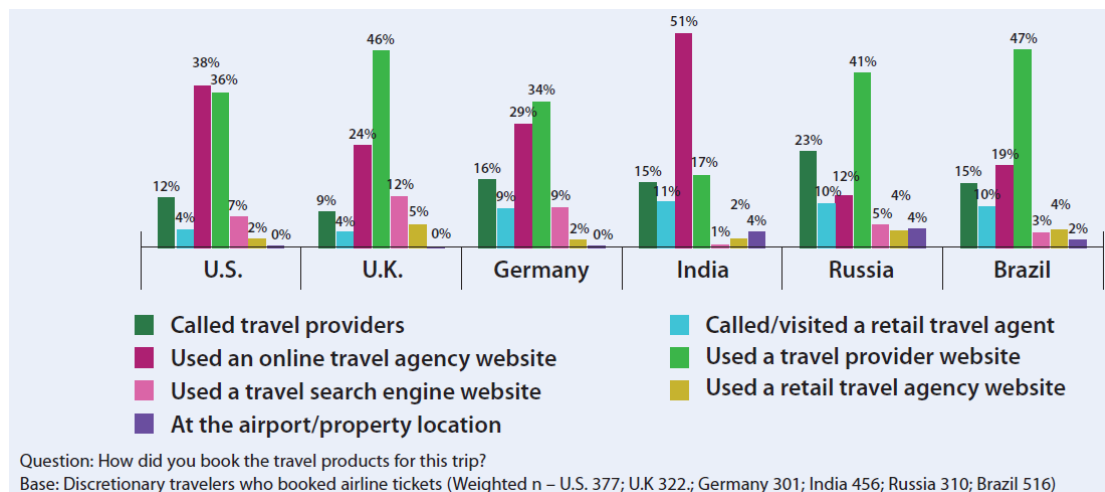


Figure 19. Travel products booking methods.

Source: PhoCusWright (2012)

In addition, the same problem of the display of ancillary services that regards airlines impacts customers as well, as this limit the effectiveness of the comparability feature of the indirect channels. Moreover, being this channels mostly price-focused, there is little possibility for the customers to take informed decision based solely on the information provided by these channels.

2.3 The status of the airline distribution: change is needed

Globally considered the airline (and the travel) distribution seems to not satisfy anyone of the actors involved. Leisure customers complain the difficulty in making travel arrangements that are aligned to their preferences and budgets and business customers pretend to have better transparency on the total cost of airline bookings and to seamlessly book ancillaries and other travel products through dedicated tools. Airlines are frustrated by the cost of distribution and by the fact to not being able to differentiate themselves in the indirect channels, while in the other side travel agents don’t like the attempt of the airlines to go direct and to reduce the provision of commissions. In this rapidly evolving world, GDSs are threatened by the rise of direct channels and by the possibility that direct connect methods replace themselves.

It is then without surprise that the entire travel distribution chain is then characterised by the coexistence of “unhealthy” relationships among their actors that makes really hard to innovate harmoniously to ultimately meet the evolving customers’ needs globally. The travel industry is probably one of the few industries where the relation suppliers-intermediaries-customers is “broken” and where it’s very difficult to work together towards the common objective of increasing bookings volume and value by ultimately satisfying the customer.

It goes without saying that the airline distribution needs a change. Executives of both airlines, GDSs and travel agencies all envision a change. The question is whatever this change will be achievable and how much time will be needed. Nevertheless the simultaneous presence of aligned needs makes the change more achievable. In particular, it can be observed that the need for personalisation of the travel experience coupled with comparability capability matches the needs of the airline carriers to offer their ancillaries and to provide more information about their services in the indirect channels. This coexistence of these needs could be of fundamental importance to speed up the development of a “revised” distribution model that could “morph into commerce” (Atmosphere Research, 2012).

It remain to be seen how this change, announced and invoked by airline and travel executives around the world, will take form and how will be implemented. All these matters will be treated extensively in the next chapter.

Chapter 3. The future of airline distribution: finding a balance between yields and distribution costs

The first aim of this chapter is to review the plausible distribution scenarios in the airline industry in the short and long term. This in particular involves asking the following question: what will be the mix between direct and indirect sales in the future? From the answer to this question it can be then predicted what will be the key actors, which role they will undertake and which kind of relationships will be the standard in the industry.

After having delineated some possible trends that will shape airline distribution, the focus will be then directed to what airlines can do now and in the future in order to build a sustainable distribution model aligned with their strategic objectives, competences and market environment that represents an optimum trade-off between yields and distribution costs. In particular, it will be proposed a model to allow airlines to understand, recognise and implement the perfect mix of distribution channels, based on the business model of the airline.

To build this new model, in paragraph 3.1, there will be a synthesis of the forces that will shape the airline and travel world. These forces will be then analysed and will be assumed for granted in the development of the model.

After having delineated some macro-trends that will for sure have an impact in the future distribution, all the main alternative models currently theorised in the industry will be challenged in the paragraph 3.2, proving their robustness in terms of economic and “political” feasibility. In particular, in this paragraph it will be assessed the IATA-driven and the alliance-driven distribution model as well as new alternative commissions’ model as suggested by (Atmosphere Research, 2012), the direct connect and the role of Google in the travel distribution.

Then it will be considered in detail a particular scenario that sees the airline evolving to be the one-stop shop for travel. In paragraph 3.3, this model will be described and there will be provided evidences to prove if this new strategic positioning is feasible.

As all these parts presented above will come to the conclusion that a one size-fits all distribution mix doesn’t exists and that it has been observed a general “irrational” divergence between the overall strategy and the distribution mix adopted, a new model for

distribution based on the particular business model of the airline (e.g. LCC, network global, regional etc.) will be suggested in paragraph 3.4.

With the ambition to provide airlines with a valid decision-making tool to decide which distribution model apply best to themselves and to understand which processes they should put in place in order to ensure an alignment of the distribution activities with the rest of the components of the airline strategic process, in paragraph 3.5 there will be presented some recommendations based on practical evidences.

3.1 Building the basis for a distribution forecast model: the forces that will shape the airline and travel world

Chapter 2 provided extensive details on some of the macro-trends that are currently shaping the industry. In particular, the travel market seems to be dominated by many diverse forces that originate from the customers side, intermediaries and distributors side, airlines side and from the external environment. These forces are different in strength, objectives, timing and likelihood to achieve its intents, meaning that the travel ecosystem is passing through a strong “turbulence”, in which the outcome strongly depend on which forces will prevail over the others. The combination of these opposing or compatible forces will then determine the new ecosystem and which distribution model is more likely to attach.

In order to gain a clear vision of the framework, the forces have been categorised according to the source from which they originate:

- Customers’/market forces
- Airlines’ forces
- Intermediaries’ and Distributors’ forces
- Environment’s forces

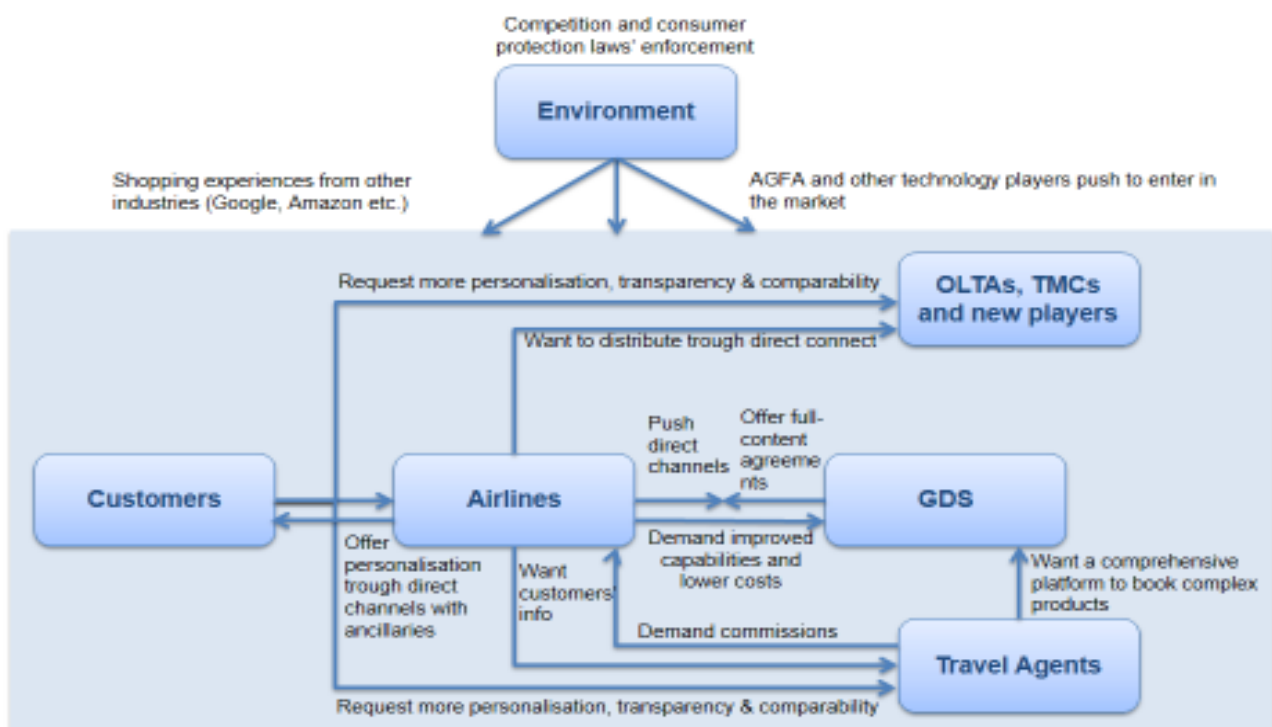


Figure 20. The forces that will shape the future airline distribution model.

Customers' and market forces

Today airlines' passengers retain an unprecedented buying power. This is likely to increase in the coming decades as passengers will have more opportunities to switch between travel suppliers and intermediaries in their quest for a personalised and an affordable travel. In the digital era, customers are mandating change in the airline distribution world, as it can be observed in the current times. As the whole travel chain is becoming more and more customer-centred, future passengers will play a major role in the future innovation of the travel distribution, as airlines and other travel actors will increasingly listen to customers' needs and take actions accordingly. According to (Amadeus, Oxford Economics) "passengers want more than what is offered via the indirect channel. They are increasingly coming to airline websites as they believe these offer them the best value for their particular needs." This clearly highlights not only the attention of global customers towards the "distribution issue" but also how strong they are in the current liberalised competitive arena. One example of this is how quickly the Air Canada fares model widespread in the industry as more and more customers demanded it.

For this reason it can be argued that digitalised customers will drive change in distribution as they will demand a shopping experience similar to what they could find in other industries. In particular, future passengers will demand more personalisation (the ability to shape the product according to their particular needs) and comparability (the ability to easily compare all travel solutions in order to find the product that best suits their own needs). This will impact especially the indirect channels, which are the ones that present both critical issues and they will be the preferred distribution channel by future customers thanks to their unique ability to compare the different airlines products.

Another point to consider when investigating the future path of the airlines' demand, it's the geographical composition of the future travel. As the Asia-Pacific market will rank among the topmost regions in terms of passengers, the whole travel distribution chain has to adapt accordingly. Airlines and travel intermediaries will need to work hard to better serve this growing demand in the region. In particular, the distribution players will have to closely monitor the situation in order to tap into this profitable, but still closed market by effectively partnering with local players and local governments. As reported by (Amadeus, s.d.), western travel players are establishing a foothold in this area, especially in China, as relaxed regulation laws are gradually opening the borders to travel distribution actors.

Airlines' forces

Is it hard to predict accurately how airlines will play in the distribution arena. However it's reasonable to expect that the airlines will continue to push for the maximum exploitation of the direct channels as long as GDS and other travel distribution actors will permit it. Currently the full-content agreements are limiting this but it doesn't mean that airlines will stop to push their direct channels. To the purposes of the preparation of the ground of this future model of airline distribution, it can be argued that airlines will continue to promote their direct channels over the indirect as long as this results in a profit.

In the other side, airlines are likely to pursue the changes already in act within the indirect channels, as they recognise that comparability and maximum geographical reach is fundamental to achieve increasingly high sales volume and yields. So it can be assumed that airlines will "lobby" distributors to shape a more valuable indirect distribution channel as a result of the customers' quest for comparability and personalisation (see Figure 20). As ancillary revenues continue to grow in importance for airlines, with full service carriers as dependent on these as the low-cost carriers⁹, airlines will collectively push for increasing sales of ancillary's services and other unbundled and bundled fare products. To achieve this they are currently requesting GDS to handle the increasing volumes of the merchandise of ancillaries and they are also encouraging travel agents to sell more of these products through indirect channels. As more and more airlines are joining the "ancillaries' wagon", it is expectable that airlines will demand the indirect channels to achieve at least the same sales level of the direct channels.

Intermediaries' forces

To analyse the forces in the downstream part of the chain, a distinction has to be made within the intermediaries. Given the impressive development of the internet business it is projected that while online travel agents will show substantial growth, bricks and mortar travel agents (apart from the business ones) will experience an important drop in sales unless they could reposition themselves in some niches (ethnic travel, adventure travels, etc.) or propose themselves as valuable travel consultants¹⁰.

⁹ IdeaWorks' Review of Ancillary Revenue Results 2012 reveals that airlines earned \$27bn from non-seat sales last year, nearly 20% higher than 2011 and more than double the amount reported in its 2009 report (Ideaworks, 2012).

¹⁰ See (Amadeus, Oxford Economics)

Online travel agents and TMCs will be fundamental players in the future but the forces coming from the environment, airlines and from customers will pretend to effectively compare all content with a high degree of choice, personalisation and transparency to be distributed by the less costly way available to airlines.

Facing growing competition from major travel web sites and travel supplier consumer-direct marketing, traditional agencies are under intense pressure to expand profit margins and lower operating costs. Travellers are more demanding than ever, and travel suppliers are distributing their products through an increasing number of booking channels. As a result, travel agents are tapping into multiple web sites and other sources, and working across multiple platforms to find more options for travellers. Travelport research has shown that travel agents query an average of 17 different web sites or information sources prior to each booking. Consequently travel agents have a strong need to ease the shopping experience, by having the possibility to compare, book and manage basic products, ancillaries and complex bundled products via a unique platform.

As (von Koslowski, 2013) has noted, since the 90s travel agents have been precluded by any opportunity to “share the pie”, making it more difficult to survive with no incentives and pressure to sell airline inventory at the same time. For this, travel agents auspicate to continue to receive in the future incentives and their collective action could counterbalance the airline force to disintermediate, to keep at a minimum the commissions and to even push for a future where travel agents will need to pay to access content.

Another potential area of conflict it's the one regarding customers' info. The IATA New Distribution Capability could enlighten the old conflict about the ownership of customers' information¹¹.

Distributors' forces

One of the most important forces in the market by which depends most of the future of the airline distribution is the one that belongs to GDS. In an environment where airlines are demanding more functionalities and at the same time they are tenaciously looking for alternative ways to bypass them, much depends by the GDS reactions and more in particular by their ability to lock-in airlines with full-content agreements and with advanced technology solutions that provide exclusive access to critical markets. The survival of the

¹¹ This topic will be discussed in paragraph 3.2.1

GDS in the next future depends by these lasts and ultimately by their ability to understand the change in the market and adapt to it by diversifying their business to other related areas of IT management of the airline distribution or by proposing value-added functionalities that airlines and final customers' demand. On this last point it seems that most GDS are listening to these needs and are working towards the enhancement of their distribution platforms as part of their strategy to defend their role in the indirect travel distribution. This is the case of the IATA-driven new initiative for distribution (NDC), where some GDS are proactively taking part in the design of the new distribution technological standards¹².

Environment forces

Under the name of environment forces it has been grouped all the forces that stem from the large environment of the travel distribution market. It comprises forces originating by both adjacent and non-adjacent markets. In particular three main forces will shape the future distribution model:

- The shopping experiences offered by other retailers in other industries like Amazon, are currently influencing customers and the actors of the distribution. These retailers are often referred as benchmarks and part of the industry discussion is devoted to offer in the future a shopping experience similar to this best-of-class retailers.
- High technology partners like Amazon, Facebook or Google can also enter the travel distribution market as explained in paragraph 3.2.5.
- The future developments of airline distribution are influenced by the competition and consumer protection regulations in force in the different countries.

¹² More on this topic in paragraph 3.2.1

3.2 Alternative models for distribution: a review of the future scenarios

To demonstrate that distribution is on top of airline managers' agenda, it can be simply observed how much time of the industry discussions is devoted to this topic. In fact, the debate for the future distribution is alive and industry organisations like IATA are currently moving the whole industry to take some changes in an environment that under some aspects, hasn't changed so much in the last four decades.

One concept that promise to be a breakthrough innovation is the IATA New Distribution Capability (NDC), a new standard collaborative industry initiative to build an open Internet-based data exchange standard for use in indirect distribution channels. The aim of this initiative is to innovate the way data is exchanged across distribution channels, making it possible to allow customers to enjoy "shopping experiences" in indirect channels similar to what they can experience in the direct website channels. As it appears now, this new standard will be compatible with the existing distribution model, trying to eliminate some frictions between airlines, distributors and intermediaries. However some implementation risks exist and will be discussed extensively in the next paragraph.

If the IATA standard will permit to innovate current distribution practices without imposing a big change in terms of actors, other models have been advanced or are advancing that could have a much more "revolutionising" effect in the distribution. One of the most audacious theories is the "Value Creation Hubs", theorised by (Atmosphere Research, 2012) in its "Future Airline Distribution Report", it accords a primary role to alliances in the future of distribution. While it can be considered an intriguing theory based on some realistic assumptions on the airlines willingness to control the distribution, it appears to be very difficult to implement. Description and analysis of this option will be discussed in paragraph 3.2.2, together with the presentation of some generic findings about the future feasibility of a direct-based distribution model.

Another possible area of innovations passes through the revision of the commissions model. In paragraph 3.2.3 adoption of different commission schemes coming from other industries will be analysed and challenged.

Another potential phenomenon worth of consideration, is about the entrance of the big internet firms of our times in the travel industry distribution. Not only will be discussed in paragraph 3.2.4 the effects of the acquisition of the renowned search engine ITA Software

by Google, but it will be forecasted the feasibility and potential effects of the entrance of giant like Amazon.

Finally, in 3.2.5 it will be derived the conclusions coming from the analysis of these different scenarios.

3.2.1 IATA NDC: setting new standards for a more personalised and transparent distribution?

During the first half of 2012, IATA New Distribution Capability initiative was perceived by some analysts as an attempt of airlines to bypass GDS by providing the standards for a kind of “direct connect” technology solution to distribute content without the intervention of GDS”. The rumours for a big revolution that will boost the disintermediation process spread out around the whole travel industry¹³ and industry players strongly debated until October 2012, when the new IATA concept for innovation was unveiled.

Resolution 787, the foundation Resolution supporting a New Distribution Capability (NDC) was formally approved by the IATA Passenger Services Conference (PSC) in October, 2012. (IATA, 2012) formally rebated that the new standards will not:

- Constitute an attempt to bypass GDS
- Induce airlines to further “go direct”
- Constitute an attempt to establish industry-wide the “direct-connect” concept as it exists in US
- Be implemented unilaterally. Airlines are not the only distribution actors involved in the discussions: GDS and other travel actors participate as well in the working groups.

Since October 2012, IATA NDC project has progressed and in March 2013, IATA filed an application for approval of Resolution 787 to the United States Department of Transportation (DOT), as under the “Provisions for Conduct of IATA Traffic Conferences”, IATA is required to file any and all resolutions and agreements coming out of its various conferences with DOT. The DOT could provide an answer by the end of 2013.

¹³ For example see (The Economist, 2012)

In May 2013, Airline Tariff Publishing Company (ATPCO) assigned its Open AXIS license to IATA, making IATA the custodian of Open AXIS XML schemas. This means that IATA will govern the schema evolution, including further development, maintenance and standardization efforts. XML schemas are one of the building blocks of NDC, setting the parameters for transmitting data.

Nowadays the NDC project has entered a pilot phase in order to validate and enhance the NDC business requirements and schemas, and recently published information permit to shed more light on the true scope of the IATA project.

Basically NDC is an IATA-led collaborative industry initiative to build an open Internet-based data exchange standard (based on XML) for use in indirect distribution channels. This represents a big modernisation in the technological capabilities of the indirect distribution challenge that currently is based on TELETYPE and EDIFACT, 40 years old languages developed before Internet was invented that provide very limited information through the infrastructure (basically only fares and schedules).

The need for a new language emerged, as IATA realised the inabilities of current indirect channels to provide customers with search and shopping experiences similar to those attainable in airlines channels and with some OTAs (especially in US as a result of direct-connect initiatives) in terms of personalisation and fare and service transparency. As airlines' products evolved from when GDS were born, with the rise of unbundled fares and ancillary as a response of the price-driven competition of low-cost carriers, airlines clearly evidenced the urgent need for a technological update of their indirect channels (see paragraph 2.0.2). They couldn't tolerate anymore such a deep discrepancy between the airline's website experience, with rich content, bundle offers clearly stating what is included in each and ability of consumers to create their own offers. Results from (SITA, 2012) show that today the vast majority of ancillary revenues are earned through direct sales channels, such as the airline website, with the remainder through indirect channels. On average airlines earn nine times more ancillary revenue through direct channels than indirect, even though the indirect channel accounts for nearly half of ticket sales. A large part of the discrepancy is due to the lack of standards and control over what is presented to the end customer, which make ancillaries through indirect channels very challenging. Recent new approaches, such as the NDC initiative, may change this trend and enable more transparency across all channels. However, for now airlines see direct channels as by far the

most significant contributor to ancillary revenues, with 89% of non-ticketing sales expected through this channel by 2016, an increase from 87% today.

As it has been seen in paragraph 3.1 as well in chapter 2, there is a convergence of the needs of the customers', airlines, GDSs and travel agents to evolve the airline distribution to the state of art of retail e-commerce. Given this convergences of generic objectives it seems that all parties will benefit from the creation of new standards and it should be expected that all actors are equally determined to reach this demanding target. Even if in principle all main actors seem to accept and sponsor the project, differences exist.

Airlines, and in particular network/legacy carriers, are those that should benefit most by the implementation of the NDC. Aleks Popovich, IATA's senior vice-president of industry and financial services, said: "NDC is about growing the revenues for airlines, not about reducing the costs of distribution. At its own website, the airline is in control of its own content. The challenge the industry faces is to extend this control across agency and other third-party channels. The basic goal of NDC is to open up merchandising to apply across all distribution channels" (Cowen , 2013). By augmenting the content of information exchanged in the distribution networks, IATA expect that airlines around the world would have better opportunities by:

- Having the capability to sell all products through all channels
- Leveraging the investments made for their direct channel and develop retail capabilities for all channels
- Having greater ability to recognize and reward customers, provide personalized offers

Undoubtedly the NDC would allow airlines to finally offer a shopping experience similar to what it's offered on the direct channels. It's then without surprise that the majority of network airlines favour the development of these new standards as they see a way to position their product in truthful way, thus moving away from tight price competition with LCC and other legacy carriers to a renovated competition based on the product attributes. Some critics in the industry instead remark the sustainability of the costs of the initiative for smaller carriers non-affiliated to any alliance.

If seen from the passenger perspective, according to (IATA, 2012) the NDC seems to be promising in terms of:

- Increased transparency of what they are buying regardless of where they do their travel shopping
- Greater access to airlines' product and services when using a travel agent
- Ability to compare airline offerings across many dimensions – not just price
- Recognition by airlines and personalized products offers

Despite the announced benefits promoted by IATA, concerns arisen about privacy issues and the fact that personalisation could be transformed as a penalization of the customers with hidden fees and by hiding the fares that are deemed by the system as inappropriate for that particular customer's profile. Critics emphasize that the NDC will mean an end to price comparison and enable the airlines to engage in price discrimination thereby offering different prices to different consumers. IATA responded to this critics by affirming that NDC will be compliant to the privacy laws and that anonymous shopping will be available as well (Rice, IATA reaffirms commitment to NDC, but adds clarifications, 2013).

The response from the global distribution systems (GDSs) is worth noting, as Travelport, Sabre and Amadeus are arguably the most exposed to the changes that NDC is trying to bring about. IATA reassured GDS about its intent with the initiative and stressed the fact that NDC can:

- Improve the capability for displaying wider range of products and services
- Stimulate innovation and offer more choice to consumers as well as opening new business opportunities

Amadeus said in a short blog post that the update addressed "virtually all of the concerns raised by Amadeus in dialogue with IATA during the last year, specifically the key issues of backward compatibility, data ownership, the binding nature of the original proposal, and privacy issues". Travelport has also responded to the update saying: "Travelport is pleased that IATA seems to be taking into account industry feedback and the serious concerns that its original approach was anti-competitive, anti-consumer and did not enable transparency or comparison shopping." Sabre is equally neutral. "We would also like to see Resolution 787 amended to reflect comments made at the recent AGM," it said.

Travel agents reaction has been less accommodating, as demonstrated by the recent "insurgence" of some US Travel agents and their associations¹⁴, who vigorously expressed

¹⁴ (Rice, Filings with DOT on IATA's NDC reveal deep airlines/agents split, 2013)

their concerns mainly around change management, customers' data ownership, challenging of the current business model and other technical and contractual details.

From its side, (IATA, 2012) stresses the fact that NDC will provide to travel agents:

- Better service for clients – greater consistency in products and services offered across the different channels
- Greater access to airline products (some of which currently are only available on direct channels) potentially leading to new service opportunities

While these benefits have not been put under discussion, it seems that NDC is much perceived as an attempt of disintermediation made by a group of airlines. IATA replied publicly that the initiative regards only the creation of not-binding standards and not the creation of a new business model. While the IATA reply seems to directly address the concerns expressed by the travel agents community, it can be argued that with this move the IATA can claim that has reshaped the airline distribution without touching the status quo, while at the same time “leaving the door open” for big changes of the distribution model, like direct connect or others non GDS-based ones.

Travel agents support, as (O' Neill, 2013) points out, is fundamental to get the NDC project done. The final user of the NDC are the travel agents and not contemplating them in the design of the initiative could turn the whole project in a big fail. What it is still not clear is who will sustain the costs and the burden of introducing the new standards among more than 60,000 travel agents worldwide, taking in mind that often travel agents are resistant to the change. It is difficult to imagine the IATA, which has not a very good reputation among travel agents, to train and promote the new capabilities alone. Instead GDS are in a better position to carry out this tasks, provided they can secure some incentives from airlines in the sale of ancillaries, something that is not taken for granted as some airlines are not willing to give them any sort of “commissions” for the ancillary part.

Another “grey area” is the customers' data. Historically there has been a dispute about the ownership of the customers' information between airlines, GDSs and travel agents. This “battle” could continue with NDC as one reason for friction between travel agents and airlines is about sharing the customers' profile information in order to get an offer personalised to the customer's needs. This dispute can be seen as one of the consequences of the disintermediation, a hot issue that can harm the success of the project. To avoid this, it should be defined in detail the limits of the use of the customers' data by the airlines.

In general middlemen (GDS and travel agents) fear that the new standard would lower the entry barriers thus permitting new entrants to easily enter the travel distribution market. In fact one of the biggest fear for GDSs and travel agents is that the advent of the NDC would allow companies like Google to directly connect with all NDC-enabled airlines to show flight availabilities to their large customer base. In this case airlines will be more than willing to distribute their content in this way as Google can offer redirection to the airline websites. While it's evident that the new standard can lower the cost of distributing flights for new potential players, it's not certain, as (Richer, 2013) points out, if such a distribution system could work technologically and financially speaking. In conclusion, while the NDC could consistently lower some of the technological barriers of the market, it cannot lower others one, meaning that GDS and travel agents could still play a major role in the next future until an affordable and advanced technology can be implemented to connect airlines with new providers at lower costs than the actual ones.

According to Alexander von Koslowski, vice president of online sales/ecommerce at Dertour "the existing infrastructure of the GDSs is still necessary to compare prices and itineraries with those carriers, who do not take part in NDC. Further, complicated routings and interline itineraries will still have to be done by the GDSs, particularly for international trips that are more common outside of North America" (von Koslowski, 2013).

In less than one year from its conception, the NDC project has remarkably progressed towards important targets winning the consensus of all major airlines and those of some important actors of the distribution market. However it has been seen how many issues have still to be addressed. While Amadeus gave its green light to the project through the words of Svend Leirvaag, vice president of industry affairs for Amadeus IT Group¹⁵, Open Allies for Airfare Transparency, a group whose members include GDSs and travel agencies, said IATA should rewrite and resubmit Resolution 787 to the Department of Transportation "so that it is consistent with promises recently adopted at IATA's Annual General Meeting." Many claimed that a larger involvement from the industry was needed in the decision-making process but IATA rebated that actually representatives of GDS, travel agents, consumers, airlines and travel technology companies participate in the NDC development. With the recent amendments of the 787 Resolution it seemed that the IATA initiative is in the right track, balancing diverging stakeholder's needs and limiting the scope of the project to the

¹⁵ (Leirvaag, 2013)

creation of common-agreed standards, thus leaving to the market the change management. However implementation is still a question mark that it's not sufficiently debated (O'Neil-Dunne, 2013). The legacy carriers as represented by IATA have relied on the GDSs to do their bidding particularly in the creation of standards. This time around, airlines are attempting to go it alone without the full participation of the GDSs. At this point in time some concerns remain whether IATA and the airlines will be able to absorb such changes, economically and logistically speaking, and within a reasonable timeframe.

Finally, after considering the different views on the topic, it can be affirmed that the IATA NDC is a valuable game-changing initiative that has the potential to evolve the quality and the value of the current airline distribution to the standards requested today by increasingly demanding customers. While smaller independent airlines could have some difficulties in joining the new standards due to the costs involved in it, it is clear how much big full-service carriers and their respective alliances will benefit, as they could have the chance to distribute their content in a fully-transparent and personalised way, thus enabling a product-driven competition opposed to a price-driven one. Some LCCs could benefit as well, especially those that are increasingly investing in ancillary services and in business markets, given the NDC capability to better sell ancillaries product.

The effects on the downstream part of the travel chain can be two-fold: either an enhancement of the indirect channels that can really value GDS and travel agents contribution in the current environment either a gradual reduction of GDS and traditional travel agents role as far as airlines successfully bypass the traditional GDS-agents distribution model and their incentive-based system. What is likely to be seen is probably a two phase evolution:

1. A first phase where **indirect channels regain position** as they can finally combine a transparent, personalised customer experience with the possibility to compare the different travel solutions. This could lead to higher benefits for all travel distribution actors.
2. A second phase where **airlines successfully push for the introduction of alternative models of distribution** that bypass distribution using the XML standards of the NDC. This could only happen in a farer future where full-content agreements are not anymore in place and airlines successfully lobby together to distribute through systems like Farelogix or any direct connect service provided by new entrants (e.g. Google). If this model realise, there could be the possibility that

travel agents will earn limited or any commission at all, with a resulting consolidation of the industry and with many smaller brick & mortar agencies swept away. GDS instead will need to reconfigure their business model by entering in the business of the IT management of this new direct-connect model.

3.2.2 Can alliances or single airlines manage alone the complexities of airline distribution?

One tendency observable among airline executives is the strong confidence that they have over direct channels. While it is plausible that direct channels will experience an expansion in the future, as today the potential of these channels is not fully exploited, it's in reality difficult to imagine for network carriers that direct channels can completely substitute indirect ones, as long as the “disintermediation force” explained in 3.1 is counterbalanced by the customers’ need for comparability, which is as much strong as the former one. However, some airlines’ managers seems to be aware that indirect channels will still be fundamental in the future and instead of focusing solely on the ways to increase direct distribution they are collectively looking for ways to bypass GDS to reach intermediaries without the support of the GDS infrastructure.

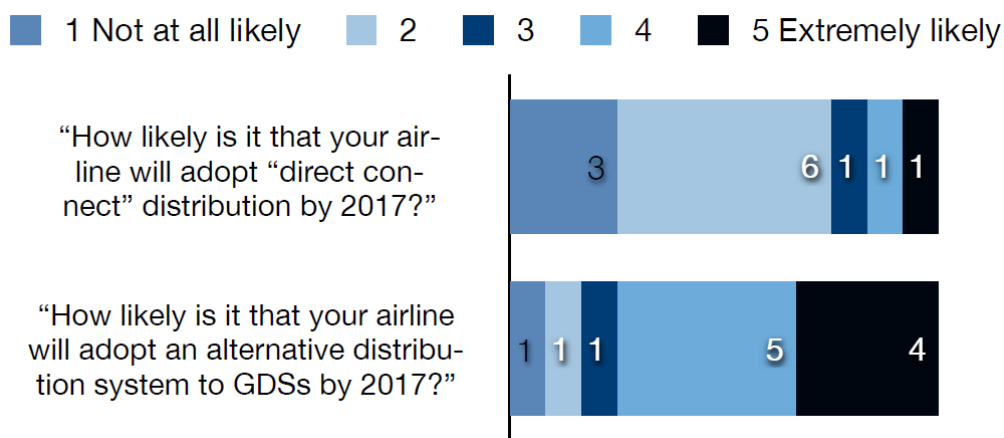


Figure 21. Airlines are seriously looking for alternatives to GDS but direct-connect systems seems not to be the future.

Source: Atmosphere telephone interviews with 12 airline marketing/sales/distribution executives

As the majority of airline commercial executives declared, airlines are looking seriously to find alternative ways for their distribution chain but they seem not to be very convinced of the feasibility of the direct-connect method, at least according to the (Atmosphere Research, 2012) survey.

This last statement is not confirmed by the SITA Airlines IT Trends Survey 2012 (SITA, 2012) that reports how 64% of the respondents plan to have direct connections with selected third party travel agents by 2015. The difference is imputable to the sample size which in the case of the SITA is of 200 airline executive respondents as opposed to the 12 reached by the Atmosphere Research. As a result the SITA survey appears to be more reliable and therefore it can be concluded that airlines across the world are strongly intentioned to explore alternative ways to distribute their products through indirect channels and direct connect it's considered a solution that it's worth exploring.

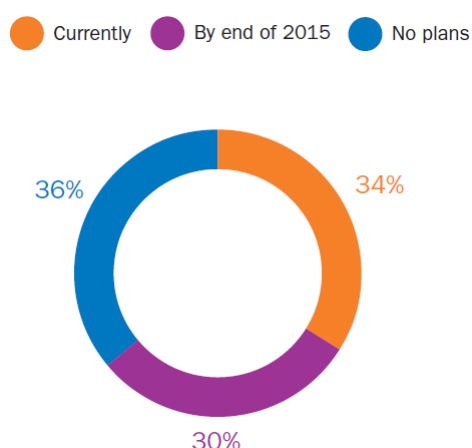


Figure 22. Direct connections with selected travel agents.

Source: Airline IT Trend Survey 2012 (SITA)

(Atmosphere Research, 2012) has theorised the rise of a new commerce channel that will become known as “value creation hubs” (VCH) (see Figure 23). VCHs will represent an evolutionary “pivot” from the current GDS approach, that will make use of the new-generation airline commerce technology infrastructure used to power airline CRS/PSS host systems, eCommerce solutions, and more. Like GDSs, VCHs will be designed to support high frequency, high-volume shopping. The aim of VCH is to provide extensive fare and product transparency, support dynamic pricing, and enable rich merchandising and retailing. It will not necessarily require airlines to change their CRS or PSS host systems.

The key feature of this system is that it will be developed for each major alliance, oneworld, SkyTeam, and Star Alliance, while LCCs will choose to collectively develop a VCH to serve their unique needs and help strengthen their competitive positions.

Because the VCHs will operate at a “group” rather than single airline level, the VCHs will house a “community link”, similar to Amadeus Net, which will function as the “hub of the hub”. This hub will connect to various airline CRS and PSS hosts, virtual hosts, and other

systems, and serve as the gateway from and between the airlines that participate in a given VCH. To create itineraries, the community link will extract and integrate airlines' schedules, inventory, product content, prices, customer data, and more, using industry XML standards compatible with IATA NDC standards.

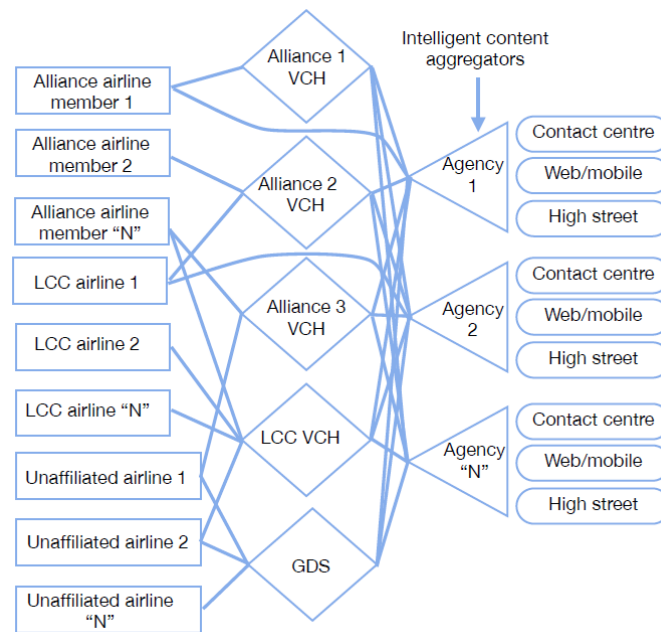


Figure 23. The Value-Creation Hubs model proposed by Atmosphere Research

Within this model third party intermediaries will need to subscribe to each VCH rather than using GDS. While the benefit for airlines concerning the control over distribution is clear, less emphasis has been put in analysing the costs involved in developing partnership with intermediaries across the world.

Even if VCHs will succeed as intermediaries' primary airline gateways, the projected growth of bookings through airline direct channels means VCHs will account for just 30% of airline reservations in 2017, the majority of which will be made by TMCs (see Figure 12-1, Figure 12-2, and Figure 12-3). It's likely that a minority of the world's network or flag airlines will not belong to an alliance by 2017, and not all of these independent airlines will have code-share relationships with alliance members. This will result in a small volume of reservations continuing to be processed through a GDS. By 2017, Atmosphere estimates that "traditional" GDS bookings will account for just 7% of worldwide airline reservation volume.

In the VCHs, GDS firms will still occupy a role but in the IT solution business segment and not in their core distribution part. The model doesn't take in account actual GDS role and their reluctance to realise such big bypass. According to Atmosphere Research, GDS

companies will accept easily to dismiss their big distribution arm only on the basis of the higher profit margins achievable through the VCH IT solutions design but the report doesn't take in account that such systems mostly represent "one-off" deals and do not provide the same annual revenue streams that distribution business is capable of.

Although the model would certainly provide some benefits to airlines, in terms of control over distribution and its costs, it underestimates some important "forces" within the distribution environment and minimise the resources needed to realise such model by 2017. In particular, it can be argued that the VCH model doesn't seem to be the better choice for the distribution environment because:

- **Realising VCH would mean to reinvent the wheel.** Essentially this model implies re-founding new little GDSs and thus going back to 40 years ago and restart the entire airline distribution from scratch.
- **Alliances have not proved to be as efficient as they should be.** Harmonisation of marketing processes and services in today modern alliances can be still considered as a "work in progress" and outsourcing the distribution of any single airline to large alliances would take a considerable amount of time and money.
- **The investments needed for realising the system can offset the gains.** Instead, GDS have the capacity to handle the future volumes of distribution and they can provide it at no additional costs.
- **Distribution is a complex matter and airlines have not the capabilities to handle it.** Managing effectively the airline distribution require both commercial acumen and IT technology skills that can be hard to obtain even for large and medium-sized airlines. Lack of these skills or not having clear processes in place can have important negative consequences on the sales revenue¹⁶.
- **Costs of scraping the systems to achieve comparability can be higher than actual ones.**

These concerns are generally extendible to any other attempt to establish a bypass of GDS.

¹⁶ See the recent case of Alitalia, where an error allowed passengers all over the world to profit from Japan only discounts (Telegraph, 2012)

For what has been underlined above it's much more probable that GDS will remain a strong actor of airline distribution at least for the next 5 years. In the current distribution scenario and in the immediate future GDS are needed by airline since they:

- **Permit to reach travel agents across the world.** To give an example Amadeus GDS permits to reach 219 markets with access to over 400,000 agency points of sale (Amadeus, 2013), a figure that is hardly difficult to replicate in the next five years by using alternative distribution systems.
- **Have a technological infrastructure that is hard to replicate without incurring in huge costs.** Often undervalued in the previous report it's how replicating a large transmission infrastructure would cost for the whole airline industry and if this at the end of the day will be really more convenient than remaining with the status quo. To give an idea of the technological dimension of this issue it can be observed that Travelport data centre is among the largest non-military data facilities in the world.
- **Manage content reliably.** Although GDS infrastructure may need an upgrade to adapt to the new NDC standards and make it functional in the new internet-based distribution environment, GDSs are the one that can ensure at no extra cost the quality, integrity, real-time multichannel availability of the content.
- **Had signed full-content agreements with major airlines, meaning that going direct is not necessarily convenient.** With the aim of preventing airlines to distribute only in direct channels or to distribute their cheaper fares exclusively through direct channels, GDSs made an intelligent move: they accepted to reduce the booking fee and to introduce a pricing based on the value of the segment (charging less for domestic markets or for markets where the airline retain strong brand awareness and charging higher fees for other markets). So far around 80% of Amadeus bookings worldwide are with airlines where a content agreement is in place, including large European aviation groups like IAG (parent of British Airways and Iberia) and Lufthansa (Flightglobal, 2013). However it has to be remarked that these agreements came after months of difficult negotiations, a symptom of the difficult relations that GDS have with the airlines. According to a GDS executive interviewed for this research, there will be no dramatic changes in the next five years as most of the full-content agreements signed with the major airlines will last until 2017/2018. After this date, depending on how the distribution technology

and more general the market has evolved, the airline distribution could evolve or not to a different model alternative to GDS.

3.2.3 Revolutionising commissions: will it work?

An area that has been interested by little innovations is probably the ones that regards commissions. Airlines generally require third parties to sell a published fare for the same price that the airline charges. This business approach dates back literally to the start of commercial aviation, when the airline brand landscape was highly fragmented, travel agents choose the airline by which the customer will fly with and the fare structures were simpler and flatter. When airlines spun off GDS companies, what had been a source of profit immediately became an expense item. Airline loyalty programs, the Internet and growth in passengers choosing their own flights, and increasingly complex fare structures, with massive gaps between the least and most expensive fares, all contributed to the current environment defined by “unhealthy relations”.

Despite limited initiatives such as the one between British Airways and LIME Management in the UK, where agents pay LIME to issue BA tickets, the general practice in the travel industry is for suppliers like airlines to bear distribution costs. In most other industries, a retailer acquires goods at a wholesale price, and marks up the item to sell to its customers. That margin covers its expenses, including distribution.

(Atmosphere Research, 2012) forecasts that by 2017, airline commerce will embrace this: “Airlines will control their financial metrics, such as yield, to preserve revenue and profit. This approach offers airlines an additional benefit: The intermediary becomes the “merchant of record”. Along with fulfilment and customer support, the agency bears the cost of “merchant fees” charged by the credit card, bank or other payment provider the passenger uses”.

To do this, the report suggests three wholesale models based on factors such as the competitive environment, product being sold, and point of sale:

- **A traditional “wholesale” model that lets agencies determine the sales price.** The “wholesale-like” price would be set to meet the carrier’s yield and profit targets, but allow the intermediary to determine the “street price” the passenger would pay. Considering an A to B itinerary, an airline might “retail” to travellers for US\$300. The airline would charge the agency a “wholesale” price -- for example,

\$285. Though the agency can't charge more than \$300, it could, if it wanted, sell the ticket for less than \$285.

- **Manufacturers' Suggested Retail Price (MSRP) to preserve price integrity.** The MSRP model is the business model Apple Computer uses with its authorized retailers. Although Apple sells its products to the retailer at wholesale rates, Apple controls the retail price. Similarly, an airline that uses the MSRP model will also "sell" an itinerary to an agency at a wholesale-like price, that meets the carrier's financial targets, but require the agency sell the itinerary at the same price the airline charges in its direct channels. In the MSRP model, an airline would "sell" a \$300 fare to an agency for \$285 but mandate the agency charge the passenger \$300, preserving pricing integrity across channels. According to Atmosphere this model is best suited for premium products, such as first or business class tickets, or on routes where one airline operates all or almost all the flights.

- **"Pass through" maintains the current business practice.** One of the main objections is that these "innovations" are not applicable in all countries due to different legislation. In countries where regulations or business practices preclude an airline from using either the traditional wholesale or MSRP models, or for negotiated corporate fares, an airline would maintain the current business practice of "passing through" a fare to an agency at the same price the airline charges in its own channels. Without a mark-up, an agency can credibly argue that it has no margin to pay for distribution. Rather than continue to pay for distribution directly, the IATA-commissioned report suggests that the airline to eventually provide the agency with modest financial compensation to cover distribution, including merchant fees.

Mechanisms already exist for airlines to control their own pricing by using of a "trust token" passed at the moment of ticketing. Any airline that chooses to use this will have pricing integrity, which would alleviate the need for debit memos, and allow the airline to confidently offer consistent pricing across channels. So far, no airline has chosen to do this.

Although interesting and innovative the proposals above present some risks. Undoubtedly the merit of them resides in the fact that permits to approach the distribution costs' problem from a new angle, leaving the burden of distribution itself to the actors in the downstream part of the value chain thus inducing them to perform cost-efficiency initiatives in the area

of distribution that they control. If this model will work, airlines will finally achieve huge savings in distribution costs with minimal commercial costs.

On the other hand, the main concern that the IATA report on airline distribution don't mention it's related to the effective interests that travel agents would have to sell inventory for the airlines. Without commissions every traditional sales promotion policies will have little grip with travel agents. In a commoditising market like most of sectors of the airline market are, eliminating traditional commissions would have strong impacts on both yields and load factors of airlines, so it is of primary importance to provide alternative ways on how to motivate the sales agents to make bookings for a specific airline.

Another way for writing-off the costs of distribution from airline balance-sheets is to pass the cost of distribution onto the customer as a surcharge. This would have probably the merit of conciliating airlines and travel agents but the option doesn't rank best for feasibility. In fact it has to be demonstrated the legal feasibility of such initiative, especially in US where the legislation is particular stringent on these topics. While nowadays airlines charge customers for the most disparate costs items (e.g. security and insurance surcharge), it will be difficult but not impossible for airlines to get this new fee accepted among consumers' associations and legislations across the world.

3.2.4 Google and the new technological players in travel distribution

The traditional primary focus of airlines' distribution attentions have been their own channels and those of key third-parties, such as GDS, metasearch, and offline and online travel agencies. These channels continue to merit airlines' attention, but they cannot be carriers' sole focus. If one wants to adopt the Porter's five forces to travel distribution, under the force threat of substitution products it will be certainly mentioned the potential threat of what (Atmosphere Research, 2012) in its "The Future of Airline Distribution" calls CAFGA. CAFGA refers to 5 big innovative companies that could enter the travel distribution arena: Concur, parent of the TripIt itinerary management tool, Apple, Facebook, Google, and Amazon. Each of them is not all destined to become the future distributor or the future alternative to GDS but they are today in good position to play an important role in the travel distribution.

According to (Atmosphere Research, 2012):

- **Concur may become a key analytics provider for airlines.** Thanks to buying TripIt in 2011, Concur is positioned to become a gateway between airlines and their

passengers. TripIt lets travellers upload their flight, hotel, and other travel reservations to a consolidated itinerary. As a result, TripIt can create a “super PNR” of its users’ trips, and Concur can integrate user data into a comprehensive data warehouse, made even more powerful if the traveller also uses Concur’s expense reporting software. Concur sits on massive volumes of customer data and insights. As (Atmosphere Research, 2012) theorises, Concur can leverage this by selling data to airlines (data that may include insights such as market share, fare paid, purchase channels used, and more) and through TripIt-based marketing solutions.

- **Apple’s Passbook can become a service airlines need to pay for.** Thanks to Passbook, Apple’s new mobile wallet, can store a traveller’s loyalty program account information, boarding passes, coupons, and more. (Atmosphere Research, 2012) believes Passbook has the potential to threaten the airline passenger relationship, due to how Apple designs applications that are easy, enjoyable, and nearly effortless to use, and which provide the user with enormous utility. According to the research firm, Apple won’t be a travel retailer, since travel doesn’t offer the same margins as entertainment, and selling travel brings with it customer service burdens. Instead, they think that Apple will use Passbook “as the media and financial “toll booth” that airlines will have to pay to reach their passengers” (Atmosphere Research, 2012).
- **Facebook can sell better its capability to reach travellers** knows how your passengers live their lives. Facebook’s semantic data, search data, and advertising insights, coupled with its ability to process reservations and its growing capabilities in mobile, make the site powerful due to the data it is aggregating. With this respect, (Atmosphere Research, 2012) forecasts that “Facebook will attempt to aggressively monetize its users by using real-time bidding (RTB) algorithms that will pit airlines against intermediaries to reach travellers”.
- **Google can become a giant of travel distribution.** Google participates in almost every aspect of airline distribution, e-commerce, and marketing. As (McKinsey, 2012) has pointed out, Google has the financial resources and the core competences to become one of the greatest metasearch worldwide, thus reshaping the actual relationship between airlines and final customers. According to (Atmosphere Research, 2012) “Google can use its power and reach to facilitate or interfere with the relationship an airline and passenger have with one another. Even if it chooses to facilitate the relationship, Google can make that access extremely expensive, or force

an airline to use a certain product if the airline wants to reach to passengers through a specific channel”.

• **Amazon is not “yet” part of the travel distribution but it can leverage its competences to provide personalised customer-centred travel offers.**

Amazon is a powerful, mighty retailing hub, and it has a core competence in mining data to craft personalised offers to customers. Amazon’s excellence in analysing big data and large existing customer base can be of greater use in a future distribution scenario, powered by the IATA NDC standards. Amazon can fill the today gap in the dynamic packaging and can become a superior “Online Travel Agency” if it manages to find a valid technological partner expert in the travel distribution.

Even if some of the “big” companies named above are still far to enter the travel distribution arena, it is worth pointing out as all actors of airline distribution must be aware of the pressure that these companies can exercise in one direction or in the other. The impact on control over distribution and its costs that these companies can have, differs from company to company. While Google with the ITA acquisition has become a strong player in airline distribution and any of its actions is monitored carefully by GDS, airlines and travel agents, Concur and Apple influence on travel distribution could be less since they can occupy niches of these markets.

All in all, the entrance of this big newcomers like Google, can have positive impacts from an airline viewpoint. They can provide the necessary spark of innovation that is needed to accelerate change in an industry that needs leapfrogs since a long time but I hasn’t been capable of implementing it in short times. However actually Google development has been slow in Europe and even in North America and Google flight is still a bit far to become that powerful distributors actor that promise to be.

Companies like Facebook or Concur can also provide added-value services airlines to better reach the final customers and to hopefully evolve their commercial practices to the common standards of the other much more innovative industries. Google, for example, has indirectly mandated changes to GDS, reducing their market power and accelerating the speed of innovation.

A part from the bigger ones there is a plenty of startup in the travel business or in adjacent markets that can provide interesting services to airline. In fact there are some companies

that provide ways to sell distressed inventory with relevant impacts in the airline revenues¹⁷. However, according to the same author, what it's missing in the airline industry it's the capability to understand valuable entrepreneurial opportunities and to make them work by offering the guarantee to invest money in R&D. Such inability to quickly catch opportunities as arising from the market, it's an issue of primary importance if the airline wants to enter the e-commerce world seriously.

3.2.5 The future airline distribution

Delineating the future of the airline distribution in the midst of “re-evolution” it's not an easy task. During the last UATP Airline Distribution Conference in Miami speakers and delegates seemed to agree on two points: “the changes will not take place overnight and second, they will not be predictable” (Rice, Fear of unknown grows rampant as IATA pushes its NDC initiative, 2013). The first part of this tense, really gives a hint on the future of the distribution. Although airlines' industry is known to be a fast-pacing industry, distribution will not change abruptly in the short-term. The large IT infrastructure needed and the huge time necessary to mandate change at industry-level over actors and processes that have been in place for decades, means that altering the current distribution model in one sense or in the other needs a considerable amount of time. For this it can be forecasted two main phases:

1. A **stable phase** that corresponds to the time that the major current full-content agreements are in place (next 4/5 years) where no big changes are forecasted. By the end of this tie the NDC project should have been completed
2. A possible **breakthrough phase**. At the end of the big full-content agreements it will be possible to know if any potential new technology that can substitute GDS could be seriously enforced by the majority of the airlines.

In both phases the state-of-the-art of the distribution depends by the success of the current initiative, by which force will prevail and if any external player will seriously enter the market. Although it's not possible to forecast exactly all the variables that could shape the future airline distribution, it's still possible to delineate some possible scenarios based on the outcomes of some initiatives taken by the actors of the travel distribution. Below in Figure 24 it has been represented some scenarios that are the result of the different events that could shape the travel distribution in the future.

¹⁷ Thanks to X, Air one has...

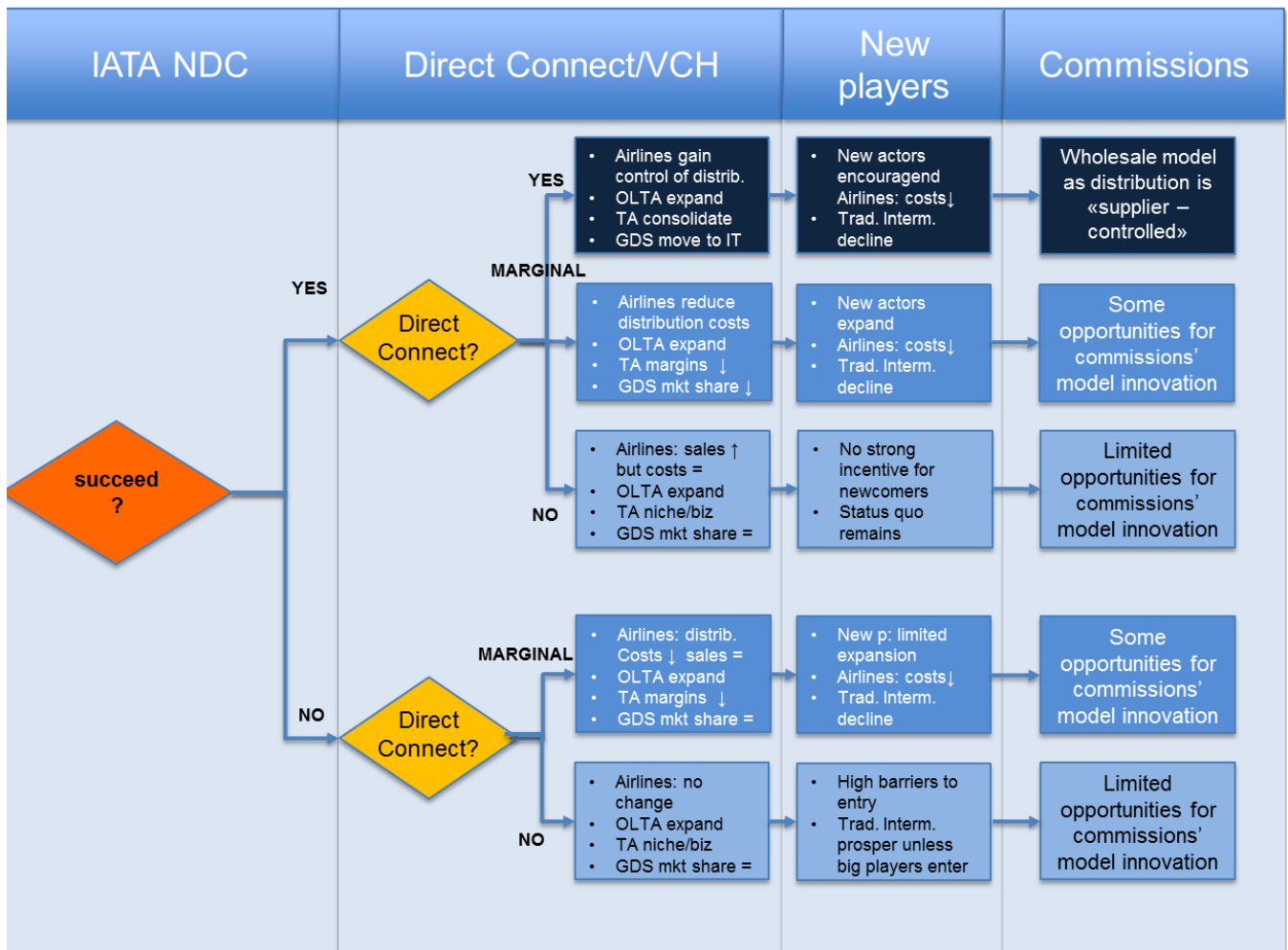


Figure 24. The possible distribution models according to different scenarios

The main event that will decide the future course of the airline and travel distribution is the NDC initiative. If it succeeds it can presumably give a strong contribute to emergence of alternative distribution models such as the direct connect or the value creation hubs. The outcome of these efforts largely depends on how much airlines and their technological partners will be able to affirm a new bypass of GDS that it's based on the new IATA standards.

If the direct connect or the VCH model is fully realised the resulting distribution scenario will be totally different from today one. In this case airlines will be fully in control of the distribution and can achieve higher yields, as they can easily offer over all channels customised offers based on customer insight and can reduce drastically their distribution costs through the use of a technology infrastructure alternative to GDS and thanks to a new commission system that can help airlines to transfer the distribution costs from their

balances to the intermediaries balances. This “liberalised” scenario, where GDS are really marginal actors, is highly attractive for new players, both technology and commercial ones. They are strongly incentivised to cover the area left by GDS (that presumably will divest their distribution business to focus on the technological part of the travel business. In this scenario, airlines could profit from them, as they can sell their contents to some specific markets at low costs while other travel intermediaries that do not have a strong presence online will be forced to further consolidate to avoid bankruptcy.

While airlines could be strongly incentivized to make it happen, this scenario seems to be unlikely to materialise, at least in the short term. IATA NDC initiative seems to be still far to the conclusion and the difficulties explained in the paragraph 3.2.2 could discourage the industry to take the ndc further and develop an alternative method to GDS.

Much more likely is the scenario where NDC is realised and direct connect is in place but it don't comprehend all airlines. In this case, airlines reduce distribution costs, achieve better yields and revenues and GDS still exist and still represent an important cornerstone of the airline distribution even if they market share decreases. In the travel chain OLTAs, TMCs and traditional travel agents need to adapt their infrastructure to be able to sell the products of different airlines using different platforms. Because of this and because of the increased competition of new online-based players, many travel agents will probably go out of business as they could not sustain the increased costs of switching distribution system. If this ‘mixed’ infrastructure is not completely compatible and harmonised, airlines who will wish to distribute through direct connect means, will find it difficult and not always convenient. However the pace of the technology will allow in a farer future to overcome this and to connect to many different type of intermediaries seamlessly. This scenario is still of interest for new players, that could represent a serious treat for the incumbents. Also the different balance of powers could allow for the emergence of a different commissions’ model.

If the IATA NDC materialises and the direct connect model fail to emerge, airlines can still benefit from a better quality level of their sales channels but it is likely that there will not be no dramatic changes in their distribution costs. Instead it could be reasonably expected that airlines will use the NDC argument to negotiate further discounts to the GDS but the value of this will not probably be more pronounced than the discounts applied today when a new participating carriers’ agreement is negotiated. GDS will still be needed, as they will be the only viable mean to connect airlines with far markets and high yield business customers. The situation of the remaining distribution players will not change that much from what is

observed today: online travel agencies will expand, travel management companies will continue to use mainly the GDS infrastructure and the traditional travel agents will need to focus on some niche markets to survive.

There is also a not remote possibility that IATA NDC project stalls and the distribution infrastructure remains unvaried. In this case the innovation towards the new standards will be carried independently by the different GDS and by the new technological players like Farelogix that will create alternative ways of distributing.

What effectively will change in this case will again depend by the level of implementation of any direct connect initiative. In any case the maximum attainable level of GDS bypass will be for sure lower because of the lack of industry-wide standards and the economic impact of any of this initiative will be lower, since there will not be great opportunities to enhance the revenue side of the airlines profitability equation. In any case it will be less probable that new players will enter the market as the barriers to entry will remain high. Only giant like Google could still afford to increase their foothold in this market.

In more general terms, the key point will be who will ensure airlines reach business and high yield customers. If GDS can ensure to be the only way to reach business customers they will be still part of the game whether happens to the distribution environment. If someone else finds an alternative and viable way to reach business customers the distribution picture will change dramatically.

3.3 Can Airlines become the one-stop shop for travel?

The modern technologies makes relatively possible for airlines to evolve from mere flight suppliers to managers for the customers' entire travel experience.

According to (Amadeus, Oxford Economics), "the key to unlocking growth and profitability in the travel sector is delivering a "total travel experience which has so far proved elusive". In addition to that, many industry experts and surveys indicate that the future travel experience has to respond to the increasing demand for personalisation of services. Airlines are in a great position to offer tailored and extensive travel services for their passengers and can exploit these opportunities by using their own distribution channels and their own data to bring customer experience to a next level and reinforcing their brand image.

In other words, airlines could think of their businesses holistically, as they relate to the whole of the travel value chain, and focus on providing a total travel experience. (Amadeus, Oxford Economics) recommends to airlines to “see themselves as offering a holiday or (business) experience to their customers and seek to maximise their returns on that business rather than seeing boarding and disembarkation from planes as the cut-off point. That is, they could think of their business holistically.”

Many industries have benefited from a generic product approach in the past, although the ideas involved did not seem intuitive at first. For example, the film industry originally made profits from the exhibition of films in cinemas. Competing mediums such as television, VCRs, DVDs and the internet were seen as threats at various times. However, ultimately the film industry was able to benefit from each of these mediums – foes in effect became friends.

However, it is likely that expansion across the value chain does not necessarily imply direct ownership. (Amadeus, Oxford Economics) sees as a key issue “whether airlines should put more energy in attempting to understand the whole trip experience and work in partnership with hotels, ground transport providers and others in providing tailored solutions to travellers.”

The diversification in the adjacent segments of the airline business can regard:

- **dynamic packaging.** From a technological point of view, in a near future it would be possible to see airlines offering dynamic packaging in their flight booking process. Airlines could easily use their websites as a one-stop shop where potential customers can organise every aspect of their trip, (flight, hotel, transfer to the airport) and market the whole package, assembled at the moment of purchase, for a global price calculated on the moment. Dynamic packaging, recognised unanimously as the pillar of the future of online travel distribution, can represent an interesting opportunity for airlines, especially considering the typical feature of opaque pricing. By bundling travel components together, customers would not be able to compare travel components alone (especially airfares), moving away by the fierce pricing-based competition. Such bundled offers results in less comparable travel products that could divert customers to more added-value products and to become loyal to the airline brand.
- **provision of a wide range of ancillary services** to assist customers for the whole travel experience (such as concierge services for the whole travel, visits &

excursions, ground transportation tickets etc.). Some airlines are already in the forefront in the provision of innovative ancillary services that don't regard exclusively the flight but this is far to be an industry standard. Many other airlines can opt to tap into this partly unexplored area, achieving differentiation, increased revenues and better customer satisfaction. This is particularly true for emerging markets where air transport demand is increasingly characterised by young individuals that are less "experienced" with the travel experience in other continents of the world. As Renato Ramos, TAM Airlines, declared in the (Amadeus, Oxford Economics) report, "in emerging markets, with many new flyers, airlines can gain an important advantage by offering broader travel solutions and providing integrated approaches to travel."

Today many carriers offer the possibility to book hotels, car rentals and other third-party services through their websites. However the results from the selling of these services are not satisfactory for two main reasons. Considering demand side, online customers tend today to search for travel in a sequential way, looking and booking separately each travel component. In addition, consumers tend to consult multiple websites several times, meaning that would be difficult to convince large clusters of customers to book everything in one place without comparison unless they are truly loyal to the airline brand. This is how travel e-commerce is currently structured and this has reflected in the search habits of online travellers but it is likely that in the future consumers' habits will change towards a "buy everything at once" approach.

Considering supply side instead, it seems that very few airlines have implemented a convincing ancillary services commercial strategy and have evolved their corporate culture towards a truly commercial one. Realising the dynamic packaging concept as well as the travel experience ancillary services involves an advanced degree of "retail-mentality", financial and human resources and core competences in the travel business area. Few airlines have this kind of pre-requisites to make this bold move: Emirates, for example is part of a group that comprehends a travel provider (Emirates Holidays), it has a better financial position if compared with other comparable airlines and it has developed a strong customer-oriented culture based on exclusivity. Lufthansa too has some of the requisites but – as the majority of the airlines – its commercial strategy has been very focused on the flight part of the travel only. This last point is somewhat confirmed by IdeaWorks' Jay Sorensen, that believes that airlines are more comfortable sticking to their perceived core business of

running an airline. He notes that while small carriers such as Air Baltic own taxis and hotels in Riga, larger ones such as United and SAS who have dabbled in car rental and hotel ownership have gone back to their roots and focused on running their core business. Sorensen makes the point that customers and investors also appear to prefer seeing airlines stick to the business of flying. Likewise, (Amadeus, Oxford Economics) cites that a major European carrier “indicated considerable scepticism about attempts to expand into areas such as hotel management, given the unfavourable past history of such efforts”.

Airlines in emerging markets may be more favourable towards seamless travel solutions for their own reasons. One such provider interviewed by (Amadeus, Oxford Economics) was attempting to encourage market growth amongst people who had never flown before but were now becoming able to do so. This involved setting up a partnership with the local bus company to act as a feeder bringing people in from the countryside. While there was no intention to directly run bus operations, the view of the airline was that they should be a travel solutions company and provide a total travel experience tailored to customers’ travel needs.

According to (Amadeus, Oxford Economics) “there would appear to be a distinction between the caution of Western carriers in extending across (traditional) different aspects of the traveller experience and the bolder attitude taken by carriers in emerging markets. What is likely across the world, however, is that airlines will seek a way to integrate their activities more closely with the rest of the travel value chain”.

Overall speaking, it seems to be more realistic that airlines will first expand the ancillary services they provide with new ones much more based on the travel experience. In fact, while in theory dynamic packaging could be a strong opportunity, it is unlikely that many carriers, apart from few forefunders, will embrace the risks of such an ambitious initiative. The tiny margins achievable associated with consistent IT investments and procurement costs as well as the risk of further undermining the complicated relation with travel agents, make this concept difficult to achieve in a few time. It is more likely that the role of one-stop-shop for the travel will be occupied by the OTAs, that have the partnerships, resources and competences to make dynamic packaging a real powerful tool for travellers across the globe.

Between the two opposite extremes there is room for a hybrid model, based on provision of the technological solution and the hotel inventory by OTA or other specialised companies. This is the case of Expedia Affiliate Network (in short EAN) that currently provide hotel inventory to be embedded in airlines’ websites, giving airlines the chance to become tour

operators without a financial commitment to hotels. Chris Wallis, EAN's director of partnerships for EMEA, in (Cowen , 2013) promotes EAN added-value because "the quality of the inventory and the rates EAN offer is better than the GDSs because we have Expedia behind us" and because it has a "detailed knowledge of retailing science", as opposed to airlines that still have problems on how to make sense of their big data. The development of this service is only at the beginning and further dynamic packaging options could be explored. To give an idea of the potential benefits that such systems can provide it's worth citing Barry Landes, airline partnership director for EAN North America, that notes that airlines could capture loyalty from the hotels via offers and incentives: "We saw one client get an 80% hike in conversion rate when we offered bonus miles for travellers who booked a hotel at the same time as buying their seat" (Cowen , 2013).

3.4 Aligning distribution with the airline business-model: a strategy-based model

The airline industry has, with few exceptions, always blamed the costs of GDS-based model in the last years, pushing the direct channels as much as they could with the illusion that in some point in future they could get rid of the middlemen. However the previous paragraphs have demonstrated that not only alternative models of distribution are not very likely to happen in the near future but also distribution costs are only one variable of the distribution model and not the only driver by which base the decisions. For these reasons many airlines do not properly conceive distribution in an holistic way but see it as a mere expense to be put under tight control without investigating in-depth the value created by the different kind of distribution models attainable. This has "misled" carriers towards narrow-minded decisions inspired more by sub-departmental objectives than by far-reaching strategic company objectives. This has resulted in a distribution mix that is often not optimised and aligned with the strategic business model of the airline.

Derek Sharp, managing director for global distribution sales and services at Travelport, said: "The strength of many online brands is regionalized at best, country-specific at worst and these brands, excuse the pun, do not travel particularly well across long distances – how well recognized are Kulula or SpiceJet in London, Washington or Tokyo?" (Sharp, 2013). This provides a clue on which critical dimension analyse when there is a need to design an airline distribution model: the network.

More specifically, according to (Hoong Mau, 2012), head of airline distribution at Abacus International, the three key drivers for an airlines are in the order yield, passenger volume and costs. The central point remarked by Hoong Mau is that all airlines need to maximise yields and minimise costs but “they would need to first understand the traveller or market they are targeting, to be better able to determine what distribution strategy and corresponding channels would work most effectively for them”.

With the aim of individuating a proper distribution model coherent with the airline business model in this section it will be suggested a distribution mix for each class of airline:

- **Network global carriers**
- **Network carriers**
- **Regional carriers**
- **Low cost airlines**

This classification is based on the network and the business model adopted by the airlines. Although further classification are possible, the airlines have been grouped in these four categories as they can share the same distribution mix.

Network global carriers

This particular category is represented by those few airlines that can offer a truly global network and have a strong global brand recognised in most areas of the world. Very few airlines have such characteristics: above all stands Emirates, that managed to make its Dubai hub a gateway between west and east, attracting passengers from all over the world with its premium service conducted through an extensive network that often make use of the fifth freedom of the air to run service between multiple countries (such as the Dubai-Milan-New York services). Among the big network airlines that could be comprised in this group it can be mentioned Lufthansa, which has a global network from its Frankfurt hub that it's used by many Europeans and non-Europeans passengers for their journeys towards international and intercontinental destinations. As Emirates, Lufthansa has a world-class brand that it's known for its efficiency and premium services.

Those airlines are probably among the few that can afford to gain a greater share of their bookings through the direct channels as they can leverage their strong brand and can enjoy the fact that they are often the only to offer convenient schedules in a two-pair destination O&D.

Potentially they could have better opportunities in the future to develop travel-related services creating synergies with their existing travel agency and tour operators' business segments.

Network carriers

In this category are comprised all those carriers that have a predominant hub and spoke network but that is often limited to a continent or a geographical region. Therefore they could not enjoy from a global network and brand that could permit them to sell direct a considerable proportion of their inventory outside their usually strong home market. In addition, network carriers are likely to be part of an alliance such as skyteam, oneworld or star alliance or at least they enjoy from a particular form of code share agreement. This means that those airlines can more easily distribute their seats in other markets by leveraging the strength of their partners' brand in that particular country or region. Although some small new tech companies are now starting offering alternative interlining methods to airlines, especially to small and niche carriers, nowadays interline agreements are mainly implemented through GDS. Moreover the greater part of yields and revenues of these carriers comes from business travellers and therefore indirect channels are strongly needed from this kind of airlines.

For all these considerations it comes without saying that network carriers are largely dependent from indirect channels and therefore from GDS distribution. What it is often observed is that they tend to push at maximum the direct channels in their home markets for both leisure (via website) and business segments (via corporate agreements) but they have to rely on indirect intermediaries for distributing in the away markets. Despite the global rise of Internet and the establishment of sales and marketing offices abroad, it is difficult to achieve a relevant stream of revenues from direct channels without investing efforts and money into marketing and sales activities.

Some carriers tend to overestimate the power of their direct channels abroad and the time needed to establish a strong presence in that particular country and this behaviour brings them sometimes to open new routes without a preliminary analysis of the real attainable demand from the route and market. Instead it is essential to consider the distribution as an important part of the strategic network decision that could guide towards certain markets and not others. Despite the good intents many airlines see the network management exercise

as simply putting dots on a chart without a careful analysis of the underlying demand. Instead the savvy airline encourages the distribution and sales team to actively participate in the process and continuously adjusts its network and distribution policy accordingly.

This means that ideally network carriers should:

- **Attract the greatest number of home market passenger to their direct channels, in order to reduce their distribution costs.** Home markets are the ones that should be served more by direct channels rather than indirect. However it is often observed that network carriers distribute mainly through indirect channels: Alitalia for example distribute two thirds of its seats via indirect channels in its home market. This is often due to the fact that network carriers target business customers or work with large consolidators and travel agencies. The challenge will be in the future to intercept the potential customers before they book through their travel agents and maintain at the same time a positive relationship with those agencies that are strategic for ensuring high yields. There are at least 2 ways to achieve this: getting in contact directly with the customers while they are flying with the airline and make direct channels more attractive than indirect ones. Attempting to “steal” travel agents customers is often a risk, but airlines need to know who is flying with them in order to customize their customer experience. Therefore either airlines collaborate with travel agents to achieve higher yields and ancillary services that can cover the cost of selling indirect either they try to get in contact with the customer at the different journey touch points and convince to book direct next time. The second way has the objective of attracting customers in the direct channels by making this channels more valuable for the customers. This can be achieved by distributing the lower fares online (not possible for those airlines who have subscribed full-content agreements with GDS) or by offering an added-value experience that the customers recognise and appreciate. This happens when the entire sales strategy is customer-centred and it’s designed to meet the needs and wants of the customers segments that the airline is willing to target. For example SWISS has recently adopted a local marketing strategy that aims to customise the direct channels by adapting the SWISS product to the peculiar needs of the different Swiss regions. This is enabled by the fact that the organisational structure has been redesigned in order to allow a high degree of autonomy to the decentralised network, distribution and communication teams.

- **Open international and intercontinental routes only if they have in place or they can easily build in a short time a distribution strategy that ensures satisfactory yields for both inbound and outbound traffic.** To avoid waste of money and resources derived from opening and then closing bases and/or routes, it is important that a carefully considered distribution strategy is in place by the moment the route is operative. The history is full of routes opened and then suddenly closed because of poor performance. It is evident that if the load factors and the yields are not satisfactory, something went wrong in the sales process. Better analysis, a more extensive and a more intelligent use of indirect channels as well as a dynamic exchange of information between sales, distribution, network and revenue management teams should be in most cases sufficient to improve performance on underperforming routes or at least avoid to make network mistakes.
- **Collaborate with GDS and other travel intermediaries to achieve a better control of the content, higher yields and ancillary revenues streams.** Rather than seeing the GDS and the travel agents as enemies to fight or as behemoths destined to disappear, many experts suggest that positive and collaborative relations can lead to better revenues results that could be costly to achieve in other manners (Malaysia Airlines, 2011). Partnering with a GDS, a general sales agents and any kind of travel agents to achieve better transparency in their channels is of fundamental importance to move away from price competition.

Regional airlines

Regional airlines are those airlines that operate mainly at regional level with usually smaller aircrafts. They can generally operate point-to-point flights to less served destinations or they can feeding mainly one or more hubs, often in codeshare with other network carriers.

While these airlines could have a strong brand in their local markets and make sense to go direct, they generally need to distribute through indirect channels when they have excess capacity and they need to fill their hub feeder services.

Low cost carriers

Traditionally one of the cornerstones of the low-cost airlines' model is to distribute only through direct channels with the aim to keep costs low.

Nowadays the low cost business model has evolved and different categories exist within the broad LCC definition. Apart from the ultra-low cost model of Ryanair and Spirit airlines, it

is often seen a convergence towards the full-service model with the emergence of “hybrid carriers”.

In the end, it’s no surprise that LCCs are becoming more willing to sell through GDSs, not just because of today’s lower fees and a new ability to negotiate favourable deals but also because chasing big-money corporate revenue is now a necessity in the era of expensive fuel.

As David Smith, senior manager at SITA, points out “the process of revenue generation is simple in the LCC model, while the systems required in the hybrid model incur such high costs that the additional revenues result in a net increase for the carrier, rather than just a direct increase in revenue” (Aircraft Commerce, 2011). In fact moving from a pure LCC model to a GDS-based distribution model involves many different investments and new operating costs such as GDS costs, travel agents’ commissions, bank settlement plans costs, reservation systems modules, etc. Despite low-cost alternative technology solutions are being developed today to meet the distribution demands of small and low cost carriers, the whole article contained in (Aircraft Commerce, 2011), affirms that choosing to distribute indirect has to be considered carefully. What has to be assessed is if distributing through GDS could have a positive present value, by permitting to achieve better yields and contribute to rise load factors. Again this operation succeed if the whole strategy is reconsidered. This was the case of Air Baltic that started distributing through GDS in 2008 when the economic downturn caused a reduction of 40% of passengers in only 8 weeks. This led the carrier to design a turnaround strategy based on a new hub and spoke network with 80 destinations. To fully realise the strategy the carriers needed a new distribution strategy strongly reliant on indirect channels, because of the low penetration of credit card in CIS and strong market share of travel agents in Scandinavia. As Tero Taskila, chief commercial officer at Air Baltic, affirms, the distribution strategy enabled the airline to sell more and to become the European airline with the highest penetration in CIS market.

However it has to be noted that changing the distribution mix and starting addressing business or far-away geographical markets has to be accompanied by a change in the culture and the airline organisation. This was not the case of easyJet when first introduced a product tailored specifically to business segments without changing its leisure travellers focused mentality.

3.5 Finding the winning distribution mix: the proposal of a new distribution decision-making tool

Most of the industry debate is devoted to find external ways to reduce the costs of distribution. If one looks at the proceedings of the airline distribution conferences, there is often little space devoted to discuss the internal ways to add value through distribution, an activity that implies researching analytically the optimum way to plan and execute a commercial planning process that is holistically aligned with the strategic objectives of the company and it's oriented to extract the maximum value through the distribution mix. This represents a change in the "vision" of the sales & distribution functions for a considerable number of airlines that usually look at distribution in an isolated perspective without considering the wider impacts in the airline overall performance.

Given the fact that nowadays the cost of indirect distribution are consistently lower than in the past and there is a tendency that this will further diminish in the future, there are less actionable ways to reduce costs of distribution externally. Also direct distribution today has minimal costs and it's likely that in the future there will be less scalable improvements in this area as technology advances and changes in the whole distribution model are realised. By contrast there is still much to do in order to achieve a greater share of the value that the distribution channel can now offer.

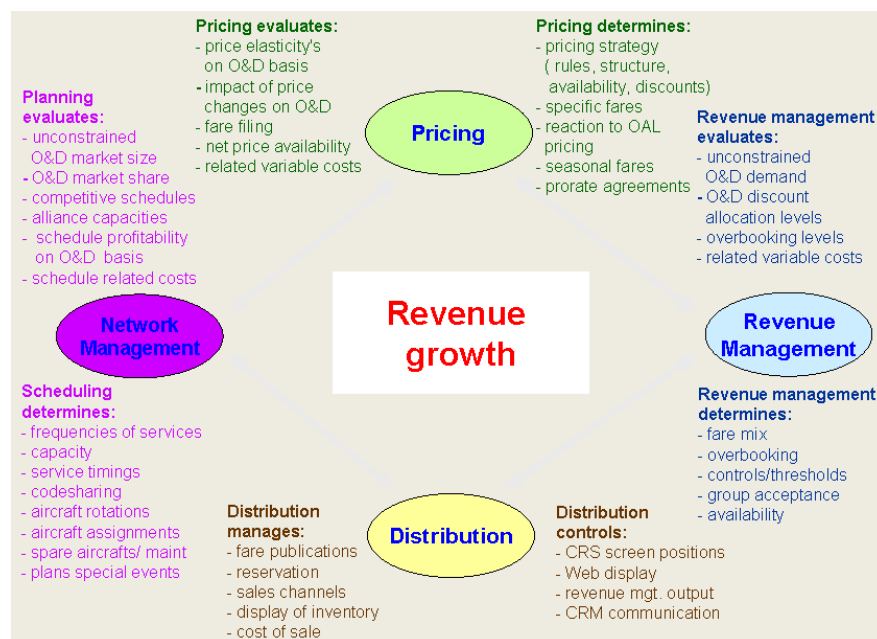


Figure 25. The four determinants of revenue growth in an airline

If one looks at how the commercial planning process is organised in today modern airlines (see Figure 25) it can be surprising to understand how the decision-making process is

fragmented. Usually the network planning department decides where and which aircraft to fly with, the pricing department take every decision related to pricing, scheduling makes short-term adjustments to capacity and schedules and the sales & distribution has the task to sell and distribute the products through direct and indirect channels. As imaginable the resulting process is characterised by the fragmentation: every department optimizes the airline offering from their subunit orientation without engaging in cross-departmental collaboration that is motivated by a common objective. This often leads to poor results, as in the example of an European carrier not equipped with a strong international brand and network, that has recently opened destinations like Abu Dhabi without any interline agreement from this destination. The fact just mentioned is just an example of how the network planning decision are often taken without adapting or considering in-depth the distribution implications.

(Semar, 2011), a consultant from Lufthansa Systems claims that “all parts of the airline’s commercial offering highly correlate with each other, but often there are no sufficient interfaces between processes, systems, and data”. The different departments of the airlines act separately with the information that come from their information silos without sharing compelling analyses and insights. Therefore, “long-lasting, iterative decision processes leads to wrong optimization results and therefore non-optimal profitability of the airline.”

Therefore the central question is how to ensure a “multi-channel strategy with an intense focus on driving higher yield and better volumes”¹⁸.

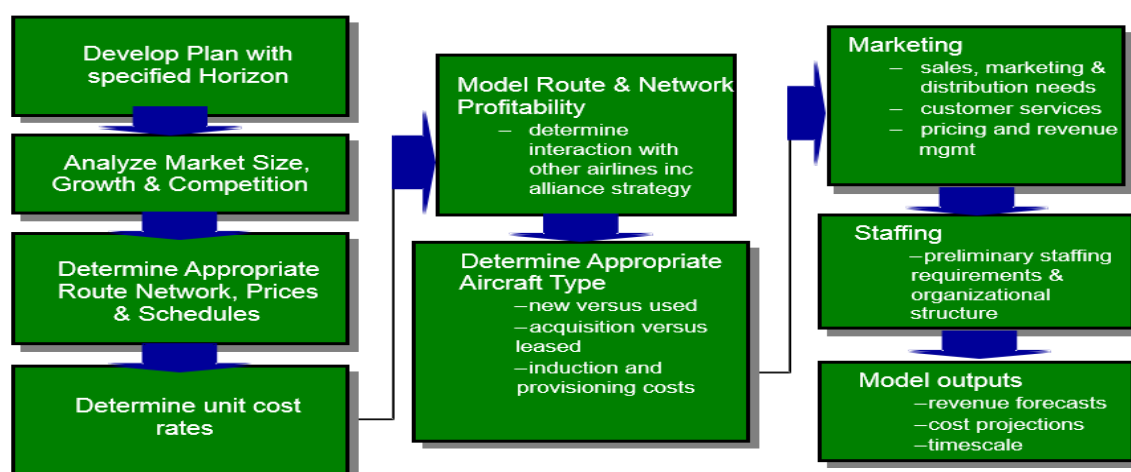


Figure 26. The traditional steps of the airline commercial process.

¹⁸ (Hoong Mau, 2012)

3.5.1 The first step: market research

According to (Hoong Mau, 2012), “it’s not that a channel is right or wrong, but a mix of channels that airlines must be able to influence to succeed. The better airlines know their customers, the better they are able to make informed product and marketing decisions”. Thus the first step is naturally conducting market research to understand:

- The demographics and the segments to which airlines’ customers belong to.
- The brand awareness of the airline according to the different market segments.
- Where the customers buy. In other words the objective is to macro-analyse the distribution channels to understand where different segments and micro-segments buy from and why.
- If the airline has a product that the different customers understand. Furthermore it to design the distribution strategy it is essential to know how the product it’s perceived in the different channels and what actions can be implemented to avoid any mismatch
- Where the competition is and where the market will be going in both short and long term.

As all the distribution planning process has to be intended as a circular, iterative process, also the marketing research has to be intended in this sense. Moreover data must be unique, coherent and shared in real-time among the different departments of an airline. As (Semar, 2011) points out, airline departments need to have “access to a central consolidated data source containing information regarding availability, scheduling and pricing” that leads to the creation of a shared and “accurate picture on markets and opportunities” where “all employees gets information depending on their requirements about changes (e.g. competitor actions like frequency increase or changes of fare structure)”. This, in the author words should lead “to seamless cross-departmental solution findings and processes, faster and more flexible reactions regarding changes in the market environment and effective and efficient decision making.

3.5.2 The customers-driven network planning

The central planning activity of any airline is the network planning one. Network decisions determine the airline performance for the next season or for the next years and making the right choices has a strong impact on the company results. For this it’s essential to understand where the customers want to fly. Currently many airlines don’t involve the sales and marketing teams, who ultimately know better than anyone the market, so early in the

process. Instead the best airlines receive inputs even before an initial draft of the schedules is done.

To efficiently set-up a customer-centred airline that is able to recognise opportunities better and faster than their competitors it is fundamental to implement a change in the organisation, from functional or vertical orientation to process orientation. As revenue maximisation requires dynamic interaction and management of all contributing functions, it can be suggested that airlines should invest in the promotion of knowledge exchange in the organisation as a result of replacing vertical authority with horizontal authority. They should also reintegrate the actions of “thinking & acting” which usually facilitate collective learning processes through a motivational effect.

The objective of this phase, as well as the other ones, is to have the right product at the right price at the right time distributed in the right place, where the customer is aware of the availability of this product and can buy it easily.

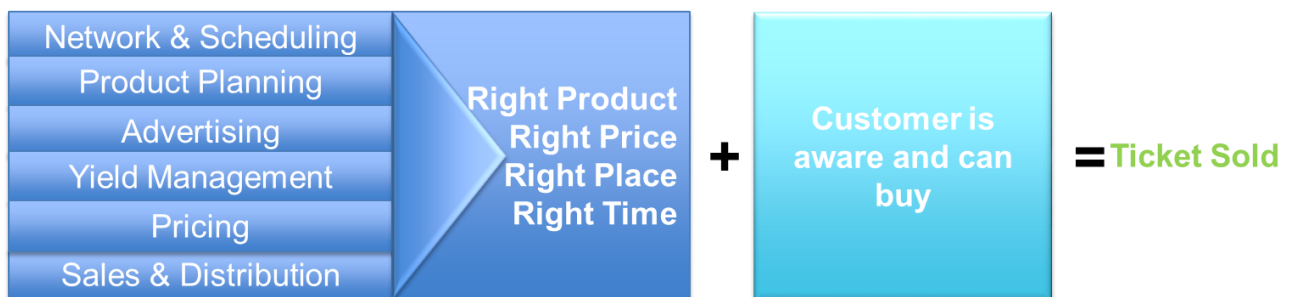


Figure 27. The determinants of sales success in an airline.

3.5.3 Aligning pricing and revenue management decisions with distribution

One of the areas that often airlines don't manage properly it's the pricing and revenue management-related one. This is the part of the commercial process that probably requires the highest degree of coordination. As (Semar, 2011) noted, this is not always the case and this leads not only to pricing inconsistencies among channels but also this lack of coordination normally translates in distributing the wrong product in the wrong channel or to not have a proper sales strategy for distributing that particular product.

As a results of data, decision fragmentation and excessive subunit orientation yields are not maximised and route/market profitability is not at its optimum. To avoid this network, sales,

pricing and revenue management should dynamically adjust their actions together by having a common database and an organisational structure that foster collaboration.

In addition to that, it is recommended that:

- Revenue management teams take in account structured feedback from sales with enhanced competitive information (published, net, group fares)
- Key events (such as local holidays or other relevant events) with revenue maximisation opportunities in key markets are rapidly taken into account.
- Consultative meetings and workshops with the design of fares are part of the routine.

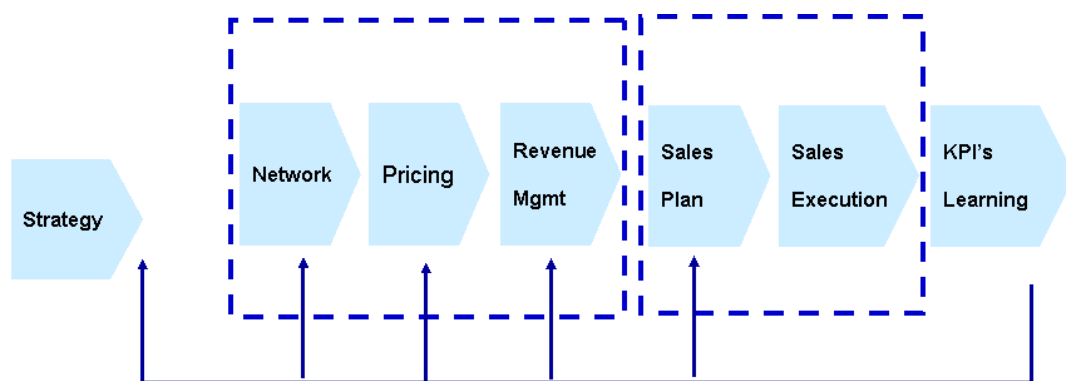


Figure 28. The crucial phase is the passage from revenue management to the sales plan.

3.5.4 Preparing and delivering the sales plan

In this phase the primary objective of distribution is to sell the airline inventory at the right time at the right cost at the right customer. This necessarily involves ensuring that the seats can be easily booked by the customers and payments are quickly collected.

This for sure comes when a rigorous and analytical planning process is in place, but it has to be reminded that plans are not written in the stone. Rather than keeping to sell airline seats that are clearly badly positioned in the market because of poor alignment of pricing, distribution and network decisions, the sales & distribution department should quickly signal this and mandate a corrective action. Fine tuning the distribution mix that goes together with all other with all key commercial and operating levers, is as well as important as making big strategy changes. For this a flexible approach is much needed in a fast-pacing environment, where fare matrix and inventory allocations can be quickly changed over time.

Where an indirect distribution strategy is adopted alongside of direct online, consequential problems will occur such as with distribution channel conflict. Brand positioning can even be affected, for example, when product features and benefits are improperly communicated

by a distributor. Too much reliance on third party distributors can also threaten market share, since loyalty is usually limited to costly incentives. Such programs then add further complexity and (therefore) cost, because special monitoring and reporting systems now have to be introduced.

Distribution choices and their associated costs should be carefully compared and aligned with the degree of channel influence – indirect and/or direct – and methods chosen for generating demand. In the USA, long-haul international travellers will normally research and choose a destination themselves, and then select an airline based on varying criteria such as the value/price proposition, routes, frequency, alliances, brand loyalty incentives, service record, and perceived safety concerns of smaller less known foreign airlines. Awareness of the airline and what its brand represents is usually a key factor, but much also depends on the nature of the airline proposition, size and degree of ability to influence, and market specific variations in how business is done.

Smaller airlines may be more heavily reliant on partnerships in order to achieve results. Airlines not equipped to fulfil on packages, hotels or other bookings associated with customer's travel needs are becoming increasingly vulnerable to losing business to a competing airline, or to online travel agents that sell multiple choice airline selections that focus mainly on price.

3.5.5 Monitor performance

As stated before, continuous coordination between the different commercial departments of an airline is fundamental to achieve sustainable performance over time. Apart to coordination and cooperative dynamic decision-making it important to align the objectives by using a performance management system that use cascading metrics. This has to comprise both general metrics as well as distribution-specific ones. The aim is to steer the whole commercial organisation towards profitability trying not to focus exclusively on revenues. One metric that is particularly useful for this task is what it is often referred as the “quality net revenue”. This metric implies that the performance of the sales team is measured by all sales less the cost of distribution, incentivising the sales teams to spend time and money pursuing higher yielding business rather than spending lots to promote and sell low yielding volume just to hit the revenue target but not adding any profit.

As for all best performance management systems, metrics need to be actionable, meaning that actions could be taken in order to improve performance. Again to be effective actions

have to be jointly agreed and coordinated: for example a route that presents unsatisfactory yields can be corrected by adjusting capacity, overbooking levels, fare rules and communicate new fare rules and offers directly to selected customers segments directly or through agents.

As the whole process is circular, the next natural action is to feed the forecast and the analysis of paragraph 3.5.1 with the data and the lessons learnt accumulated during the previous phases.

Conclusions

This thesis has first closely examined the historical role of distribution for the airlines and their markets, as well as the present situation's challenges. The research revealed that the airline distribution has come to a crucial point of its life, where change is needed as the current status quo hardly satisfies any customers, traditional and low-cost airlines, GDS, traditional and online travel agents.

More in particular the analysis of historical and the current trends has identified that:

- Legacy airlines, traditionally highly reliant on indirect channels, are keen to reduce the costs involved in distribution by switching to direct channels as much as they can and by negotiating lower fees with GDS.
- Low cost carriers either stick to a pure direct distribution model or, as a great part of them are adopting some peculiarities of the network carriers, they are commencing to distribute through indirect channels to intercept high-yield business customers. They are also starting to join global alliances, which means that at least for the short term they will need to use GDS.
- The rate at which these changes are happening depends also by the region. Western carriers are the leaders of the disintermediation processes while Asian and rest of the world carriers will be expected to remain bounded to indirect distribution for more time as the internet penetration doesn't allow to achieve a predominance of direct distribution in a short period of time.
- GDS have realised that they will not enjoy the monopoly they had in the former years and on one side are trying to retain their role as gateway to business customers and on the other side they are diversifying extensively their business by focusing on the provision of IT systems for airlines and travel actors that also comprehends modules used to manage airlines' direct channels.
- Recent studies, such as PhocusWright's reports, have shown that the switch to direct distribution has stalled. Now the airlines have realized they cannot grow their direct distribution further without increasing the cost of distribution, thus they need to find a new way to distribute their products.
- In the travel intermediaries' environment, there are two different situations: online travel agents are experiencing high growth while bricks and mortar travel agents are going to consolidate or to change their business model to niche or business travel agents.

- Customers are demanding more personalisation, comparability and transparency. As the whole travel industry chain is now more than ever motivated to adopt a customer-centred approach, meaning that customer needs and wants will be one of the main determinant of airline distribution evolution.
- New entrants like Google, Amazon or Facebook have already entered or may consider to enter this market as they have the resources, competences and the fit to occupy a primary role in the travel distribution as this becomes more and more digital all over the world. These big players are not the only ones that are joining the market: many small online-based b2c or b2b firms are entering the market, providing valuable alternatives to the GDS and other traditional distribution actors.
- The legal and the general environment forces have always played an important role in the airline distribution, since the first deregulation in US was enforced. For this competition rules all over the world can play an important role while deciding which shape the new distribution will take in the next years.

As it can be noted, trends are sufficiently clear. There are a number of forces, sometimes converging sometimes diverging, that are likely to shape the airline distribution in the future. This comprehends the disintermediation, fuelled by airlines pressure to reduce costs involved in distribution as well by airlines' need to better control distribution and to better respond to customers' arising need for personalisation. On the other side, the "hybridisation" of some low-cost carriers as well as the strong customers' need to compare different offerings act as a counterbalance. Also GDS full-content agreements seemed to be efficient ways to slow down the inevitable growth of direct channels.

What is less clear it's to determine how the airline distribution will appear in the medium and long-term and when exactly change will happen. Several alternative proposals from authoritative institutions documents have been scrutinised and from interviews with experts and from a careful consideration of the pro, cons and feasibility, the most extreme positions sustained by (Atmosphere Research, 2012) and from some airlines can be easily labelled as unrealistic, at least in the short term. In particular, the value-creation hubs proposal (VCH), which sees the airlines' alliance to take up, in a few years the GDS role almost completely, can be rejected purely on the basis of the high investment costs and coordination efforts that this project requires.

More in general, this research concluded that any model that completely or almost excludes GDS from the distribution environment in the next five years can be rejected. This is also

because most of the world's large airlines have signed full-content agreements that basically oblige them to make available all their content through the GDS.

However, the IATA New Distribution Capability, innovations in the commissions' model, the entrants of new players in the market and even the VCH model can have chances to be realised and to change drastically the distribution environment.

In definitive, the answer about which distribution model will prevail in the future depends by a considerable number of variables which can be grouped in these three main categories:

- **The level of integration of the industry to successfully perform industry-wide changes, such as the IATA New Distribution Capability**
- **The ability of GDS to continue to be the only viable gateway to reach business customers, other high yield markets and overseas markets**
- **The reaction of the other actors to any subsequent industry-wide changes in the airline distribution** such as the implementation of any direct connect distribution service after the IATA NDC is implemented.

The different scenarios that can arise from the different combination of the three factors above have been explained in the paragraph 3.2.5 and summarised in the Figure 24. Basically for the first 5 years, a relative stable phase has been forecasted, where industry players can converge or not converge towards the realisation of the IATA NDC. If this happens, there could be three scenarios based on the level of implementation of any direct-connect initiatives, which the industry executives think IATA NDC can facilitate.

If the direct connect or the VCH model is fully realised, airlines will be fully in control of the distribution, GDS will be really marginal actors, new players are strongly incentives to enter the market and commissions can be revolutionised. While airlines could be strongly incentivized to make it happen, this scenario seems to be unlikely to materialise, at least in the short term.

Much more likely is the scenario where NDC is realised and direct connect is in place but it doesn't comprehend all airlines. In this case, airlines reduce distribution costs, achieve better yields and revenues and GDS still exist and still represent an important cornerstone. This scenario is still of interest for new players and could represent a serious treat for the

incumbents. Also the different balance of powers could allow for the emergence of a different commissions' model.

If the IATA NDC materialises but the direct connect model fails to emerge, airlines can still benefit from a better quality level of their sales channels but it is likely that there will not be dramatic changes in their distribution costs. Instead it could be reasonably expected that airlines will use the NDC argument to negotiate further discounts to the GDS but the value of these will not probably be more pronounced than the discounts applied today when a new participating carriers' agreement is negotiated.

There is also a not remote possibility that IATA NDC project stalls and the distribution infrastructure remains unvaried. In this case the innovation towards the new standards will be carried independently by the different GDS and by the new technological players like Farelogix that will create alternative ways of distributing airline content.

What will effectively change in this case, will again depend by the level of implementation of any direct connect initiative. In any case the maximum attainable level of GDS bypass will be for sure lower.

Looking at the micro-level, most airlines have still chances to generate greater value from the existing distribution channels without committing themselves in dramatic industry-wide changes. Some respected consultants and industry commentators that can benefit from a wider perspective of the aviation industry than a certain number of airlines executives, remarked that many airlines are not generating the whole potential that could be achieved from their assets because of organisational problems.

Interviews with industry experts and some industry reports have enlightened that in some cases:

- Network, revenue management, pricing and sales & distribution decision are taken unilaterally by their respective department leading to sub-optimisation of the results.
- Airlines tend to focus too much on the cost of distribution rather than considering the net sales and the relative yields coming from the different channels.
- Airline distribution decisions are not aligned with the airline strategy and business model.

In order to let airlines to fully benefit from their existing channels and in order to guide them towards the best-practices of distribution management, different distribution mix have been suggested for each type of airline and a revised commercial process has been recommended.

Concerning the alignment of the distribution model with the airline business strategy, based on historical performance it has been concluded that only low cost carriers and network carriers that have global networks and global brands (such as Emirates) can reasonably expect to achieve a greater part of their sales through direct channels. Other network carriers have instead to ponder carefully their distribution mix by carefully analyse the situation before embarking themselves in radical direct-based distribution projects. In particular, literature reviews and interviews with experts have evidenced that network carriers should:

- Attract the greatest number of home market passenger to their direct channels, in order to reduce their distribution costs.
- Open international and intercontinental routes only if they have in place or they can easily build in a short time a distribution strategy that ensures satisfactory yields for both inbound and outbound traffic.
- Collaborate with GDS and other travel intermediaries to achieve a better control of the content, higher yields and ancillary revenues streams.

Even if it varies on a case by case basis, regional airlines will continue (for at least the next few years) to be heavily reliant on indirect channels especially for connecting passengers, while hybrid low costs will need to be rethink some part of their processes and organisation in general to profitably enter in the indirect channels circuits.

As to what concerns the airline commercial process, the keyword is integration. Many aviation consultants and airline executives claim that only by allowing better cross-departmental communication, data integration and continuous adjustments of the plans with all the main departments of the commercial function, better results can be achieved .

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