THIRD PARTY ANCILLARY REVENUES IN THE AIRLINE SECTOR: AN EXPLORATORY STUDY

Mark Shaw[1], Siobhan Tiernan[1], John F O'Connell[2], David Warnock-Smith[3], Marina Efthymiou[4]

[1] Kemmy Business School, Univeristy of Limerick, Ireland

[2] Centre for Aviation Research at the University of Surrey, Guildford, Surrey, GU2 7XH, UK

[3] School of Aviation and Security, Buckinghamshire New University, Alexandra Road, High Wycombe, HP11 2JZ, UK

[4] DCU Business School, Dublin City University, Dublin 9, Ireland

Abstract

Some airlines, especially the Low Cost Carriers (LCCs), have being earning significant profits from revenues derived from, both a-la-carte and frequent flyer programme related ancillary revenues. To date few have being able to derive a significant quantum of revenue from 3rd party ancillaries, however. The key to increasing these revenues is an understanding of passenger willingness to pay and how to increase both customer awareness and customer conversion. This study assesses the 3rd party ancillary services passengers are more willing to purchase and also what offers might increase this willingness to purchase for specific 3rd party services. A passenger survey, nine expert interviews and a case-study on Ryanair formed the study's mixed-method approach with the main findings being that car hire, airport parking, and the sale of hotel rooms had the most significant associations with willingness to pay. It was also found that there was a significant association between specific offers and increased willingness to purchase. The 15% discount off a future flight, and to a lesser extent, hotel price guarantees were the most significant. The expert interviewees confirmed that the future sustainability of this revenue stream for airlines is centred on mobile digital devices, customer conversion, and exploiting potential market opportunities.

Keywords: airline revenues, 3rd party ancillary services, commission based ancillary services

1. Introduction

In 2017, the average return fare, according to the IATA was US$351 or 63% below 1995 levels. Aligned to this the cost of air fright was $1.48 per kilogram or a 68% fall on 1995 levels. Two years earlier in 2015, the airline industry as a whole achieved a milestone. 2015 was the first time ever that the industry generated a return on investment greater than the cost of the capital (IATA 2017). In real terms, airlines made $35.3 billion net profit on revenues of $718 billion or a return of 4.8%. These two developments highlight the growing importance of ancillary revenues for airlines worldwide. With base fares in free fall in real terms, the industry increasingly has had to rely on the sale of supplementary services to compensate. When lower oil prices, flat lining cargo revenues and regional disparities in financial performance are factored in, the ability to generate significant interest and willingness to pay in ancillary products has become all the more critical.

When the top ten airlines are looked at in terms of ancillary revenue (Table 1), these airlines earned $26 billion in 2015 or $6.2 billion per airline. Their ancillary revenues have surged by 121% between 2010 and 2014 (Warnock-Smith et al., 2015). Indeed these revenues have grown 309% from 2008 to 2015 (Idea Works, 2016). When profits earned per passenger are compared to revenue gained from ancillary services alone, it can be observed that airlines worldwide earned circa $8/9 per departing passenger in 2015, compared to $15 per departing passenger earned in ancillary revenues. Thus, without ancillary revenue, airlines worldwide would have had a loss of $6 per departing passenger.

Annual Results – 2015		Ancillary Source	Annual Results – 2008	
$6,199,000,000	United	*Various*	$2,200,000,000	American
$4,718,000,000	American	*Various*	$1,600,000,000	United
$3,775,102,000	Delta	*Various*	$1,500,000,000	Delta
$2,165,996,840	Air France/KLM *	*Various*	$833,591,870	Ryanair
$2,118,600,000	Southwest	*Various*	$611,343,126	Qantas
$1,738,783,339	Ryanair	*Various*	$528,491,844	easyJet
$1,493,634,397	Lufthansa Group *	*Various*	$350,000,000	JetBlue
$1,465,956,723	easyJet *	*Various*	$276,328,421	Emirates
$1,167,168,403	Qantas Airways	*Mostly FFP*	$246,456,904	TAM Airlines
$1,092,000,000	Alaska Air Group	*Various*	$245,700,000	Alaska Airlines
$25,934,241,702			**$8,391,912,165**	

Table 1: Top ten airlines for ancillary revenues 2008 and 2015. Source: IdeaWorks (2016)

As Warnock Smith et al. (2015) state, there is a correlation (albeit modest) between a carrier's focus on ancillary revenues, as a percentage of total revenue, and operating profit, as a percentage of total revenue. Low Cost Carrier's (LCC'S) such as Allegiant (32% and 17%) and Ryanair (26% and 14%) are prime examples, whereas on the other end of the scale carriers

such as PIA (1% and -18%) and SAA (2% and -1%) demonstrate, both a low percentage of ancillaries and a low profit to revenue percentage (IdeaWorks, 2016, IATA, 2013).

The increase in ancillary revenues over the last 10 years has stemmed from carriers attempting to expand their traditional revenue footprint by unbundling the traditional airline fare and charging for services that were once included within the fare (Warnock-Smith et al. 2015). This unbundling was encouraged by the fact that airlines found that passengers are less price sensitive when it comes to ancillary fees, compared to the price sensitivity of the fare itself (Wilson 2014). This realization has led to airlines attempting to gain an increasing percentage of their revenue from ancillary revenues than ever before. The top ten ancillary revenue airlines in 2015 had ancillary percentages ranging from, Alaska at 19.5% to Spirit at over 43%; this is compared to the top ten in 2008 ranging from, Air Asia at 8.9% to Allegiant at 22.7% (Table 2).

Annual Results – 2015		Ancillary Source	Annual Results – 2008	
43.4%	Spirit	Various	22.7%	Allegiant
37.6%	Allegiant	Various	19.3%	Ryanair
36.4%	Wizz Air	Various	15.5%	easyJet
29.4%	Jet2.com	Various	14.8%	Jet2.com
24.0%	Ryanair	Various	14.1%	Vueling
22.3%	Volaris	Various	13.0%	Germanwings
21.3%	Jetstar	Various	11.0%	Aer Lingus
21.2%	Flybe *	Various	10.3%	JetBlue
20.8%	Tigerair	Various	9.3%	American
19.5%	Alaska Air Group	Various	8.9%	AirAsia Group

Table 2: Ancillary revenue as a % of overall revenue 2008 and 2015, Source: IdeaWorks, 2016

By way of example, Ryanair's full year results for the period to 31st March 2017 show a 13% increase in ancillary revenues, bringing it up to 27% of total revenues or to €1.8 billion euros (Ryanair annual report, 2017). This search for additional revenue has led airlines like Ryanair to go beyond the traditional suite of 'a la carte' ancillaries and far into the domain of commission based (3rd party) revenues. This study seeks to explore the future of 3rd party ancillary revenues from two perspectives; firstly from a passenger's willingness to pay point of view and secondly from an industry viewpoint; the key themes that will affect the generation of 3rd party ancillary revenues in the years to come. The specific research questions to be answered are:

- What are the current prevalent themes in the area of 3rd party ancillary revenues in the airline sector?
- Is there is a significant association between ancillary revenue type and willingness to purchase, for both long haul and short haul passengers and between type of offer and willingness to pay for specific 3rd party ancillary revenue products?

The paper will be broken down as follows: Section 2 deals with the historical development of airline ancillary revenues, including literature on 3rd party services specifically, section 3

details the study's mixed methods approach while section 4 presents and discusses the main results and interprets findings. Section 5 draws conclusions and managerial implications.

2. Development of 3rd party ancillary revenues for airlines

2.1 Ancillary Revenues

O'Connell and Warnock-Smith (2013) describe ancillary revenue as income beyond the sale of tickets that is generated by direct sales to passengers, or indirectly as part of the travel experience. Direct sales to passengers beyond the sale of tickets are often known as a-la-carte fees, as the consumer chooses the ancillaries they would like to purchase and those they would prefer to refrain from. The indirect sales can be seen as commission based ancillaries, provided by 3rd parties, such as car rental and travel insurance (Fig 1).

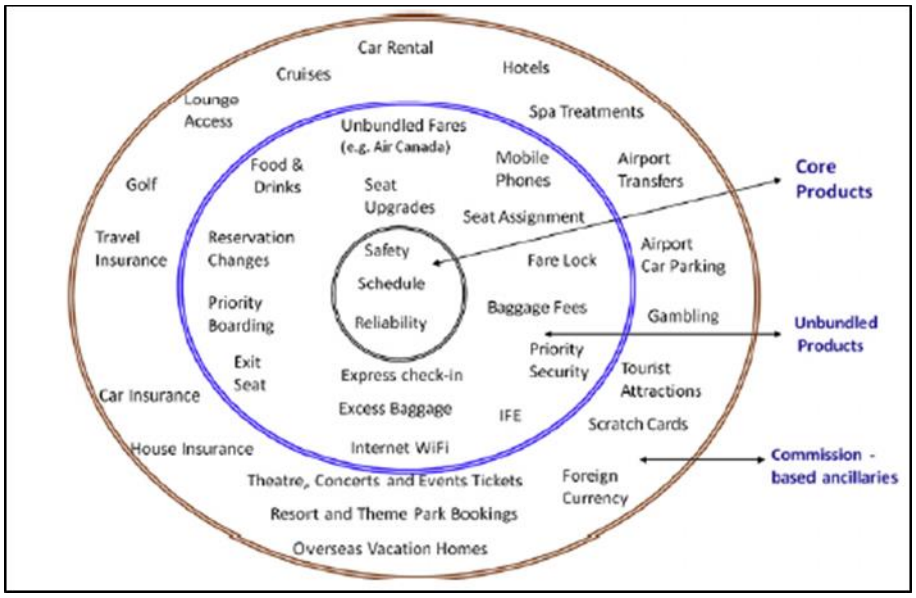

Fig 1: Types of ancillary Source O'Connell and Warnock-smith (2013)

According to Ideaworks (2017) ancillary revenues can be broken down into five key areas: a-la-carte features, commission based products, frequent-flyer activities, miscellaneous sources such as advertising, and the a-la-carte components associated with a fare or product bundle.

1. A la carte features; these are the same as the unbundled products that we see in Fig 1 above.
2. Commission based products; are the same as the commission based products that O'Connell and Warnock-Smith (2013) show us in Fig 1.
3. Frequent-flyer activities; these activities primarily refer to the sale of air miles to the likes of financial institutions to use as incentives to encourage the sales of their products (credit card sign up bonuses etc.). These activities have become major revenue

contributors, especially for US carriers. According to IdeaWorks (2016), both United and Delta attributed revenues of over $2 billion USD each to these activities in 2015 alone. This accounted for over $21 USD revenue per passenger for United and over $13 USD for Delta.

4. Advertising; this revenue primarily refers to product placement and advertising messages sold and displayed via such media as the airlines inflight magazine.
5. Fare Bundles; Fare bundles are fares that are often bundled with specific extras that encourage a customer to go for that bundle rather than a flat fare. These bundles are often better value than buying the various items included in the bundle separately and may include such things as checked baggage, lounge access, and assigned seating. Airlines may assign a certain portion of the fare associated with the specific bundle to the ancillary revenue category. This category is not so much a new category of ancillary revenue but an amalgam of any appealing combination of unbundled and commission based products and services.

2.2 A la Carte Revenue

A la Carte revenues are the amenities the customer can add to their basic air transport experience (IdeaWorks, 2009). The list includes call centre support for reservations, credit card fees, and the entire gambit of fees to improve the quality of the experience including baggage fees, fees for assigned seats or better seats, priority check in, early boarding benefits, and of course fees for purchasing food and drink on board. According to IdeaWorks (2016), 70% of ancillary revenue in non-US Airlines was being generated in excess baggage, on board services, or other a la carte services, with only 15% generated from commission based revenue. This changes dramatically for US airlines. 55% of ancillary revenue in 2014 was from the sale of frequent flyer miles, with the split of a-la-carte services to commission based revenue being 40% to 5% (Fig 2).

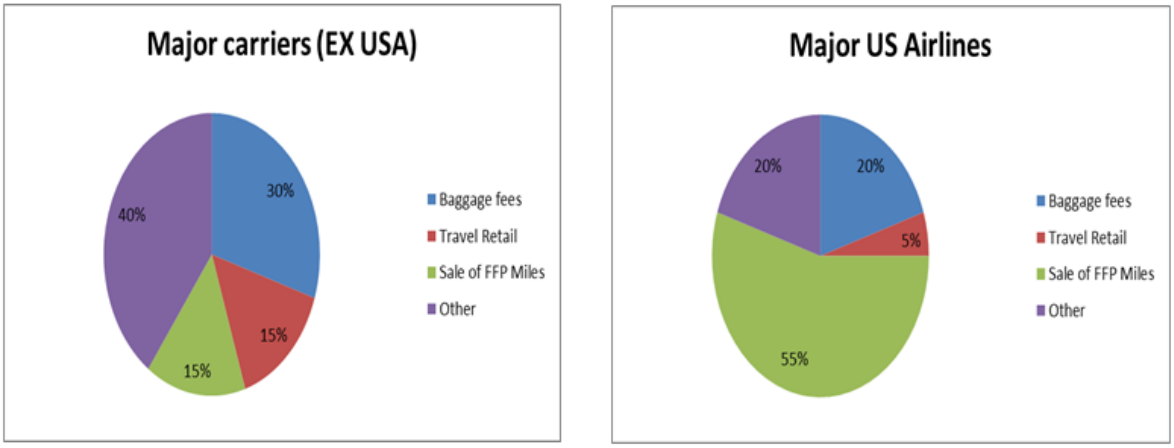

Fig 2: Ancillary revenue breakdown US carriers v Non Us carriers Source: IdeaWorks 2014, non US figures exclude LCC's

2.2.1. Baggage

As seen in Figure 2, baggage fees were the largest single source of ancillary revenue for non-US carriers but this was not always the case. In December 2005, Flybe introduced a modest £2 per bag each way fee and one month later Ryanair started to charge for hold luggage (IdeaWorks 2014); within several years, the ancillary revenue landscape had changed forever. According to the US DOT (2011), US airlines made $342 million in 2005 in baggage fees. This revenue was largely generated from excess and overweight baggage. However by 2011, this figure had reached $3.3 billion. In 2007, Allegiant and Spirit started to charge for checked luggage while American Airlines was the first legacy carrier to introduce charges for checked luggage a few months later. Doran (2008) states that in the 12 months to May 2008, jet fuel went up by 65%, to $135 a barrel; the fuel cost for a single transatlantic trip on a Silverjet B767 went up from £28,600 to £44,000. Between the beginning of April 2008 and the end of May 2008, the US Air Transport Association noted that 6 airlines had been forced to close, with another having to file for chapter 11 bankruptcy protection. The increase in fuel costs and the requirement for additional revenue streams led most US airlines to quickly introduce checked baggage fees on domestic flights (IdeaWorks 2014). This checked luggage fee was not initially very expensive. American Airlines started off charging $15 per checked bag but this fee has now risen to $25 within Canada and the USA (American Airlines, 2017). In 2016, the top four US airlines netted revenues of over $3.1 billion USD in baggage charges alone (Table 3). In 2013, despite baggage charges being introduced on many European LCC's several years earlier, Air France, British Airways, Iberia, KLM and Swiss introduced various schemes to charge baggage fees throughout their European networks or in some cases on selected routes (IdeaWorks 2014).

US $ in thousands		Q1	Q2	Q3	Q4	2016
1	American	262,464	288,836	288,124	278,048	1,117,473
2	Delta	197,690	232,461	228,971	213,297	872,419
3	United	158,949	175,460	185,609	170,386	690,404
4	Spirit	102,618	111,638	113,217	106,796	434,269

Table 3: US airlines baggage fee revenues Source DOT Bureau of Statistics

In 2010, Spirit introduced a carry-on baggage fee (excluding a personal item). Khan (2010) quotes Spirit's CEO Ben Baldanza as saying that Spirit's new fee would take 30 bags out of the overhead compartments and into the hold, which would save 5 to 7 minutes per gate on delays; "That's going to create almost 20 hours of new airplane time (per day) for us to schedule without having to go buy another airplane". Even though this new fare was greeted negatively at the time, American Airlines were to take this one step further in 2017 when they introduced a no-bags fare, where the passenger is now not entitled to any baggage, whether hold luggage or carry on. Many carriers are now starting to use dynamic baggage charges that vary the fee depending on the time of the year as well as the route that the customer is flying.

2.2.2. Seat Allocation

Low cost carriers have long been charging for seats as part of the booking process. The charges have become more sophisticated in the last few years with airlines now charging more, not only for more legroom/emergency exit seats, but also based on where a person wants to sit on the plane. Figure 3 shows how Ryanair varies these charges for a flight from Dublin to Gran Canaria on the 13/6/2017. Ryanair will also vary these charges depending on route and time of year.

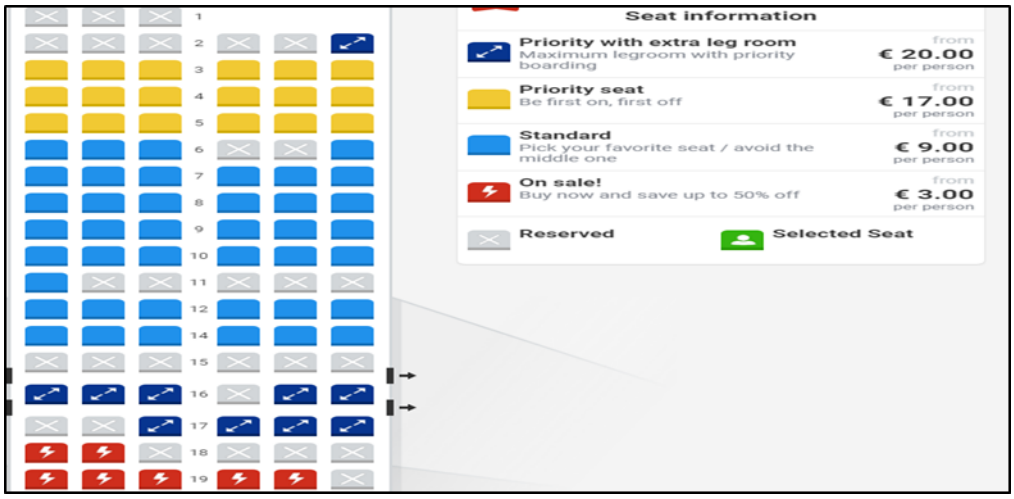

Fig 3 Ryanair Seating charges Source Ryanair.com 25/5/17 Dub-LPA 13/6/17

Jeju Air's "side seat offer" and Option Town's "empty seat option" (adopted by Vietnam Airlines and AirAsia X) lets passengers purchase empty seats next to their own allowing airlines to sell off unsold seats (Kollau, October 2017). Vueling also adopted this revenue stream in 2016 and now allows travellers to block the middle seat in certain rows of the plane for a fee. On Jeju Air, a "sleeping seat package" can be bought; this is where the passenger buys two extra side seats next to their already purchased seat for $100; a pillow and blanket are added and the passenger can stretch out on all three seats (Kollau, October 2017). This idea was brought a step further with the Air New Zealand "Sky Couch", which can be seen in Figure 4. The Sky Couch is the same as 3 normal seats, except there is an additional footrest that can be raised to form a 5ft 1inch couch. It is available on certain long haul routes and a passenger is given the option to book it during a transaction.

Fig 4 Air New Zealand Sky Couch Source Air New Zealand

Legacy carriers have been slower to start charging for assigned seating. British Airways in 2009 was one of the first legacy carriers to announce charges to pre-book seats (The Guardian, 2009). British Airways announced that, from October 2009 passengers would have to pay between £10 and £60 to secure an isle or window seat or to reserve more leg room/exit row seats or to book seats together. Seats reserved during the check-in process 24 hours before departure remain free. Many other European legacy carriers held off implementing these charges. In April 2014, Lufthansa introduced advanced seat charges but it was not until January 2016 that Air France/KLM announced charges for pre-booking certain economy seats on specific routes (Business travel news, 2015). Meanwhile non-European airlines delayed even longer, with Emirates introducing fees in October 2016.

2.2.3. Bidding for Upgrades

Many Airlines from Aer Lingus to Etihad and even to Singapore Airlines (Schlappig 2016) (from July 2016) will now allow customers to bid to upgrade their class of service in small windows (often 7 days) prior to departure covering certain fare types. These upgrades are often restricted and may not include certain perks, such as chauffeur drive with Etihad, but they do allow the customer to benefit from a higher class of service and for the airline to fill up empty premium seating. Some airlines outsource this service to companies such as Plus Grade (http://www.plusgrade.com). Plus Grade handles the upgrade process for 48 airlines and it offers to “increase its partners' revenue and deliver first-class customer satisfaction through targeted upsell opportunities”. Lufthansa introduced a trial of VR glasses at the gate to encourage passengers to upgrade to premium economy; Lufthansa said VR could be very useful; “Because what legroom and premium service really mean in Premium Economy can be best demonstrated in three-dimensional form.” Kollau (March, 2017)

2.2.4. On-Board Catering

McDonald (2011) suggests that the way to a passenger’s heart is through their stomachs. He foresaw that the days of free food on European short haul flights would be short lived and follow the example of charging for on board catering that was commonplace in 2011, on domestic USA flights. They also foresaw the advent of being able to pre-book on-board catering, which both helps reduce potential wastage and also guarantees a specific meal that the customer has pre-chosen. Even legacy flag carriers such as British Airways have now cut free food and drink options for Economy passengers on short-haul routes. British Airways have

now entered into a deal with Marks & Spencer to provide its short haul network with sandwiches and snacks. Generally, the picture now is that on short haul economy flights food is almost always purchased. There are some exceptions and the likes of Delta is now trialling free food options on transcontinental flights. Short haul business usually has food included. On long haul, most carriers offer free food, with the option to upgrade becoming more commonplace. Airlines, such as Aer Lingus, United, and KLM, now offer the opportunity to upgrade your meal up to 24 hours before departure to a "business class meal"; in the case of Aer Lingus, the customer gets a choice of chicken, salmon, or steak, plus a glass of wine for between €22.99 and €25.99 (Fig 5).

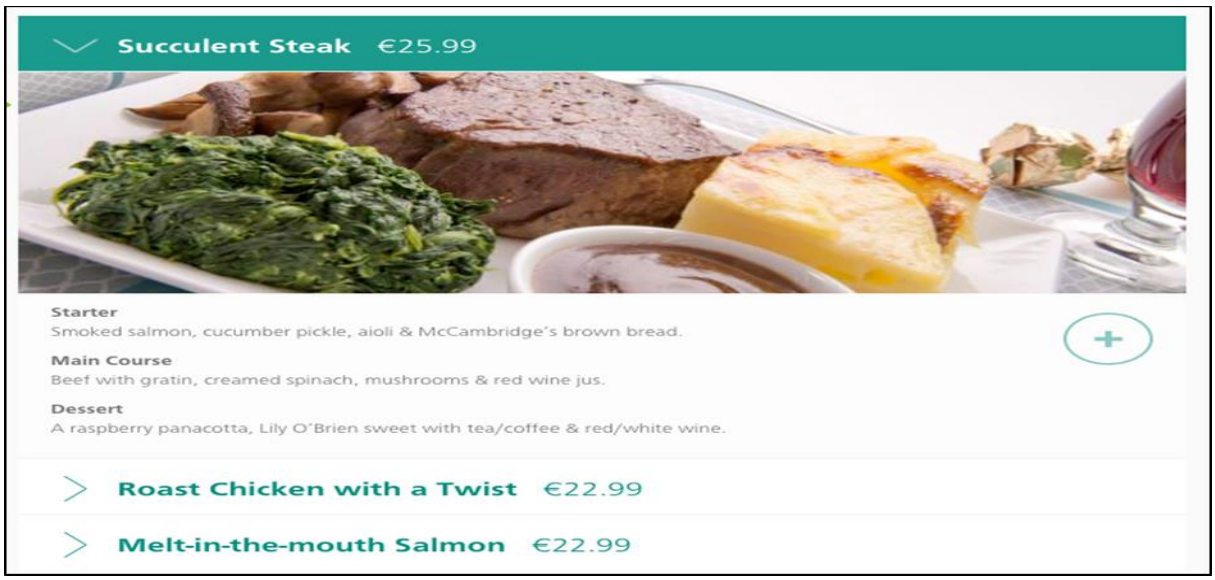

Fig 5 Aer Lingus Pre-order food offering Source Aerlingus.com booking engine 26/5/2017 DUB-SFO

2.2.5. In-Flight Entertainment/Wi-Fi

Dron (2017) found that a large percentage of airline passengers would rather have an internet connection than food on board a flight. In recent years many airlines have started to install Wi-Fi across their fleets (Gilbert, 2016). Initially, this service was quite slow and in some cases more frustrating than useful, with Steve Nolan from Gogo (the firm that supplies the vast majority of on-board Wi-Fi) explaining that speeds and bandwidth can be limited, as the speed and bandwidth available to a regular smart phone was spread amongst an entire plane. Gogo's next generation Wi-Fi is now being rolled out with the express purpose to improve the experience of on-board Wi-Fi users. Airlines such as Air Canada and Air Canada Rouge are rolling out Gogo's 2ku next generation services across both their wide bodied and narrow bodied fleet (Get Connected, 2017). Air Canada will signal the likelihood that a plane will have Wi-Fi available during the booking process. Gogo offers hourly, daily, monthly, and yearly Wi-Fi plans that, in some cases, can be used across airlines. These passes can vary from $7 per hour to $599 per year. British Airways plans to offer 2Ku Wi-Fi on 90% of its fleet by 2019 (Walsh, 2016). Research shows that some airlines such as Norwegian (on selected routes), Qatar, and Turkish Airlines offer free Wi-Fi across all cabins, while Aer Lingus offers free Wi-Fi on only in long haul business class.

In-flight Entertainment has generally been free to use even since its inception. Some airlines are now starting to offer expanded services in economy for a fee, with companies such as Euro Wings offering its entertainment for a fixed charge of €3.90 per passenger on short haul routes, via an app on a smartphone, laptop, or tablet. Hawaiian Air offers a limited complimentary offering with movies on demand or unlimited TV for a fixed charge of $7.99 on its A330 aircraft.

2.2.6. Additional Services

Additional charges can range from a call centre charge fee of £15 with Norwegian to a price lock feature with Aer Lingus for €5 per passenger per flight, or €2.50 per passenger per flight with Ryanair. The difference being that, with Aer Lingus, if you take the flight, the fee is deducted from the fare and with Ryanair the fee is an extra charge and not deducted from the fare. Many low cost carriers will charge to reprint your boarding pass (£15 with Ryanair) or for a name change (unless to correct a spelling mistake). Some charges such as a name change fee with Ryanair can be seen as punitive because of their very high charges; Ryanair charges between £110 and £160 for a name change. Paris (2015) reports that Adam West (nee Armstrong) infamously changed his name by deed poll because it was less expensive than paying the Ryanair name change fee. Schaal (2014) reports that US carriers alone generated $675 million in change fees in the fourth quarter of 2013. To encourage more Ryanair customers to check-in bags and reduce the volume of carry-on bags, Ryanair increased the check-in bag allowance from 15kg to 20kg for all bags while lowering its check-in bag fee from €/£35 to €/£25 costing the carrier €50 million per annum (Ryanair, December 2017).

Airlines may charge up to 3% for credit card bookings; some airlines such as Thomas Cook will put a minimum and maximum amount (£5-£50) that is chargeable in credit card charges. May (2017) reports that British Airways charge a £8 per booking fee on bookings via third parties that use a system that does not use a New Distribution Capability-led connection. This has the potential of making the carrier visually more expensive compared to other airlines when flights are booked on a third party website but BA says it is looking to recoup the cost of these bookings, which it has being subsiding up until now.

2.3 Third Party Ancillary Revenue

Commission based ancillary revenue are “revenue activities (that) include the commissions earned by airlines on the sale of hotel accommodations, car rentals and travel insurance”. The commission-based category primarily involves retailing via an airline’s website, but it can include the sale of duty-free and consumer products on board the aircraft (IdeaWorks 2017). Revenue derived from commission based ancillary revenue is generally for products/services offered for sale by the airline but is actually provided by a third party. The airlines collect revenue from the sale of the service without having the costs of operating the service itself. O’Connell and Warnock-Smith (2013) state that the advent of the internet has helped shift power from the supplier to the consumer. The consumer becomes their own travel agent. They can build these tailor made packages that suit their individual requirements. This process

known as dynamic packaging (dynamic because it relies on real time pricing and availability of inventory, which ultimately effects the choices a consumer makes). As large brands in their own right, many airlines are able to seize their strong internet presence to sell commission related products through their own platforms.

2.3.1. Car Hire

According to Auto Rental international, the global car rental market was worth $51 Billion in 2014, with the European car rental sector being worth approximately €12 billion. Car rental at airports or as part of the travel experience plays a huge part in this, as 60% of all car hire takes place at airports (O'Connell, 2011). Airlines such as Ryanair have been offering car hire since the 1990's. It was a natural step to combine the offer of flights and car hire to Ryanair customers, thus giving the carrier a greater share of consumer trip spend, without having to incur any of the cost of provision. Ryanair had an exclusive agreement with Hertz since 1997 but this agreement was terminated by Hertz in early 2015. This car hire agreement was highly lucrative; Ryanair alone earned approximately €32 million from Hertz in 2009, thanks to a commission of 12%-18% (Sorensen, 2007).

One of the advantages of the agreement for Hertz was that any passenger booking a fare with Ryanair had to book online with the Ryanair website and thus would have had had the opportunity to book a Hertz rental. However, in early 2014, Ryanair once again started using the GDS (Global Distribution System), which meant that travel agents could book flights without going through the Ryanair.com website and thus these passengers were not being automatically offered Hertz car hire. Ryanair now use the specialist ground transportation provider Cartrawler to provide this service. Cartrawler was founded in Dublin in 2004 and provides the offering of over 2,000 travel retailers and to over 95 airlines across, not only the LCC segment, but also to the likes of Emirates, LOT, and Hawaiian Airlines. The airline offers a car rental or other ground transportation service to its consumer and Cartrawler organises the provision of the service for the airlines. The airline takes a percentage of the fee as a commission for what was, in essence, a customer referral.

2.3.2. Hotels

Even though some airlines such as Qantas and Icelandair have their own holiday subsidiaries, for years most airlines have been foregoing huge volumes of travel related revenue, as the consumer has booked these products via alternative suppliers. Low cost carriers such as Ryanair have been offering the likes of car hire and hotel bookings separately via their website for years but they have taken this a step forward in 2016 by launching an ATOL bonded on-line travel agent - "Ryanair Holidays Online". Ryanair offers a choice of 25,000 hotels in Europe that they will bundle with their flights to offer the consumer an entire package. The new 2016 Ryanair venture will operate with Spanish tour operator, Logitravel, and accommodation provider, World2Meet, offering 3 to 5 star hotels throughout Europe. Topham (2016) reports that Ryanair was not the first LCC to offer this service; indeed, its UK rival, EasyJet had launched its own "Easy Jet holidays" in 2011 and had expanded it across Europe in 2014. This type has platform has the potential to earn airlines a higher commission rate by

working exclusively with a lower number of suppliers on their branded holiday and hotel webpages.

2.3.3. On board Retail

Parry-Ernst (2017) Manager Director, Ancillary Revenue, Air New Zealand, states that "Connectivity, pricing and distribution platforms, along with personalisation, will be key to optimising in-flight ancillary sales". She continues by saying that "on-board last minute, personalised ancillary sales meet this growing customer need and in-flight Wi-Fi provides connectivity to the airline's pricing and distribution systems, enabling real-time sales and fulfilment of in-flight ancillary". Parry-Earnst (2017) highlights the importance of Wi-Fi on board and that it gives the airline the ability to offer targeted content and products to passengers such as hotels and experiences at their destination (tickets for a theme park etc.). This type of airline-passenger interaction opens the door to a higher total of ancillary revenues through offering a combination of unbundled (e.g. Wifi access) and commission based revenues all through a common platform.

Airlines such as Delta are going beyond the traditional on-board duty free option and in 2012 teamed up with Amazon.com to allow flyers to surf the Amazon.com portal for free. Delta then earns a percentage of any items purchased (Tuttle, 2012). Other airlines such as Southwest allow customers to pay for in-flight services with their Amazon.com account, allowing customers to quickly and conveniently access services on board the flight (Lew, 2016). Kollau (June, 2017) reports that Finnair has put its new 'Nordic Sky' in-flight portal to work, as a channel to offer new services to flyers, as well as to boost ancillary sales. The portal can be accessed on passengers' own devices and gives all passengers free access to finnair.com, plus Finnair services such as destination information, customer care and pre-order duty free shopping - with items purchased being delivered to the passenger's seat on their return flight. Passengers can also use the in-flight portal to order taxis via Cabforce on in-bound Helsinki flights, or book destination services such as trips, dinner cruises, and concert tickets with Viator Destination Services. The airline is also considering allowing passengers to pre-order their groceries in-flight. Kollau (June, 2017) also reports that an innovation from Lufthansa and Frankfurt Airport means that passengers on inbound long-haul Lufthansa flights can pre-order a selection of duty free items from retailers at the airport via the Lufthansa in-flight portal and have their orders delivered to them by the airport's 'runners' at their arrival gate. Kollau (June, 2017) reports IAG's new long-haul low-cost carrier LEVEL is one of several long-haul LCCs, including Norwegian and Azul, to allow passengers to order food, beverages, and travel accessories via the in-seat IFE system and pay with their credit card via a solution called "Pair & Pay". Innovation in on-board retail continues in China, with Air China partnering with online retailer JD.com to offer passengers a selection of goods that they can purchase via the in-seat IFE system for delivery to their homes.

2.3.4. Other 3rd party services

Many airlines have offered the sale of travel insurance via their transaction channels for the last decade, with some airlines such as Ryanair and British Airways now offering a multi-trip yearlong version. In recent years, some airlines such as Ryanair (June, 2017) have started to

note that the demand for travel insurance, although still lucrative was beginning to soften as the product becomes more commoditised. Despite this commoditisation, travel insurance remains one of the big three 3rd party ancillaries, in terms of the quantum of revenue earned after hotels and car hire.

Led by LCC's, many airlines have started to offer services during the transaction path that would traditionally be offered by other suppliers. The airline does a deal with the supplier of the service to offer the likes of parking, airport fast-track, and access to executive services at the airport, and then takes a commission on the sale of the service. Moores (2017) reports that easyJet is to offer a new premium ancillary product, where passengers can board from the private jet terminal at London Luton Airport for a £475 fee. The VIP service is being offered in partnership with executive jet handling company, Signature Flight Support, and easyJet ex-CEO, Carolyn McCall, is quoted by Moores (2017) as saying that even though there is no exclusivity agreement between easyJet and Signature, they are a preferred partner and there are "definitely opportunities" to extend the service to airports like Venice, Milan, and Geneva. easyJet will market the service via its website and "below the line marketing", receiving a commission from Signature.

O'Conghaile (2016) reports that Ryanair entered into a new car parking deal with the Dublin Airport Authority (DAA) in February 2016, reporting that the deal features a limited number of car parks, and will offer Ryanair customers "the lowest parking rates at Dublin Airport". O'Conghaile (2016) reports that, on the date they published, a booking for Terminal 1 short-term parking from 2pm on Friday, February 19 to 8pm on Sunday, February 21 was priced at €29.85. The same booking cost €30.95 on Dublin Airport's website.

Ryanair also earns commissions on the sale of fast-track security. On the same days in 2017, booking fast track via the Ryanair website costed €5.95; and via the DAA website, it costed €6.49. It should be noted that booking fast-track via the DAA also qualified customers for 10% off at the airport's loop duty free stores. Clearly there is a competitive element to the generation of additional 3rd party, commission based revenues even between parties that otherwise co-operate quite closely.

2.4 Frequent-flyer miles

The sale of frequent flyer points represents a huge income stream for airlines. This is especially true for US airlines, whose sales of Frequent Flyer program miles (often to banks to use as incentives to encourage the take up of a specific credit card) accounted for 55% of all airline ancillary revenues in 2014 (IdeaWorks, 2014). Joseph DeNardi, a senior airline analyst with Stifel Financial Corp, stated in an interview with Bloomberg in 2017, "Airlines are earning upwards of 50% of [income] from selling miles to a credit card company, which we believe is a great business to be in" (Bloomberg, 2017). DeNardi also commented that these deals remain lucrative, despite economic cycles, because of the "addictive nature of the miles". He continues to say that the sale of airline miles provide a downside protection for airlines in the event of economic decline.

When we look at two full service global carriers (Fig 6), we see that, based on disclosures and estimates, both airlines have over 50% of their ancillary revenue from their frequent flyer

program (Sorensen, 2017). Delta made over $5.17 billion from ancillary revenue in 2016 with $2.59 billion coming from their frequent flyer program and co-branded credit cards.

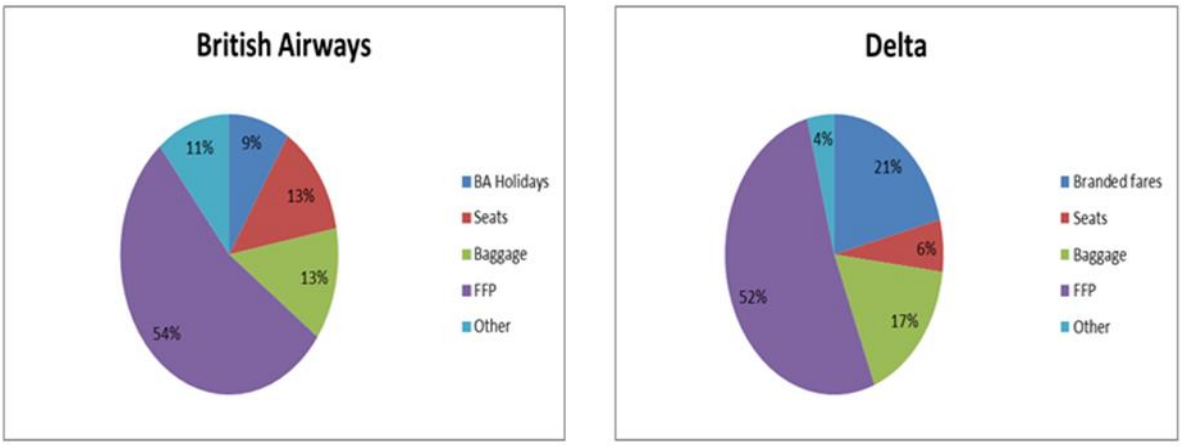

Fig 6: Global carrier ancillary revenue percentages Source IdeaWorks 2017 (based upon disclosures and estimates for 2016)

The figures differ dramatically for many LCCs and ULCCs. For easyJet and Hong Kong Express, 47% and 68% of their ancillary revenues respectively come from baggage charges (Sorensen 2017), whereas in the cases above, 13% and 17% came from the baggage charges of British Airways and Delta. Ryanair and easyJet are the only carriers in the top ten ancillary revenue earners (by total revenues earned) in 2016 that did not earn substantial revenue from frequent flyer program (Sorensen 2017). For these carrier types the development of commission based revenues is all the more important.

Credit card revenues are tied to spending that is often unrelated to airline products. The goal of the FFP was traditionally to reward customers for flying with the airline and to encourage them to continue flying. In recent times, especially in the US, this overall goal of the FFP might still remain the same but there is a much stronger link between the operation of the FFP, the sale of air miles to 3rd parties, and the profitability of the airline. Figure 7 demonstrates how the potential value of FFPs for some airlines comes close to and, in some cases, outstrips the market capitalization of the airline.

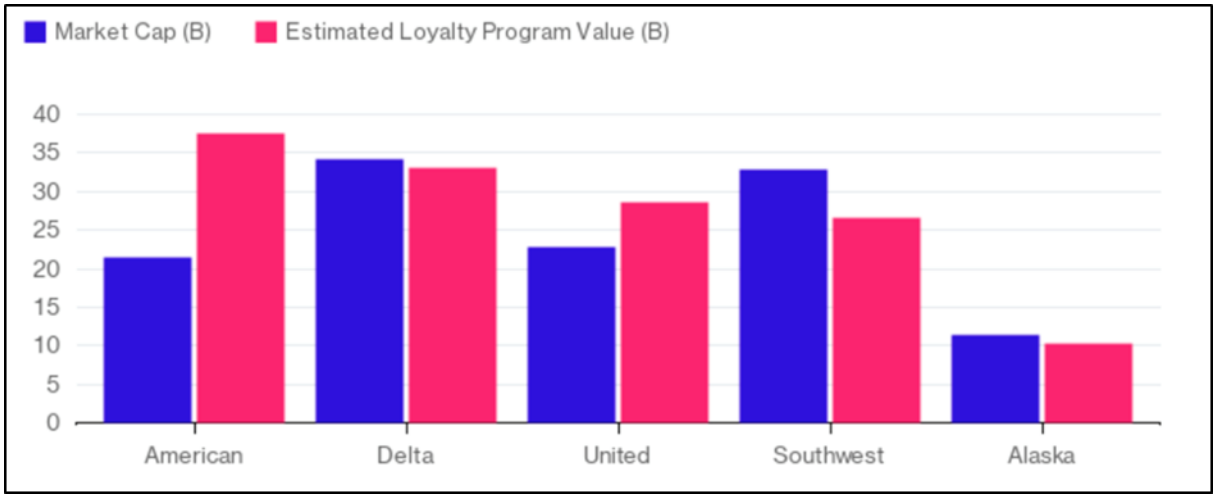

Fig 7: North American airlines market capitalization v value of loyalty program. Source Bloomberg, 2017

2.5. Willingness to pay

When examining ancillary revenue it is key to also look at passenger willingness to pay. If a passenger is not willing to pay for something then there is little point in an airline offering the specific service or product. O'Connell and Warnock-Smith (2013) state that a common concern for all carriers when adopting ancillary services is the impact on perceived service levels. Gollan (2017), writing on Forbes.com, reported that British Airways struggled with the implementation of charging for food on its short-haul routes and the impact that charging for same would have on customer satisfaction. Gollan (2017) reported that upset passengers went to Twitter to question whether British Airways was "still a full service airline" and that there was an entire thread on the travel forum Flyertalk.com dedicated to the changeover. Warnock-Smith et al. (2017) state that Full Service Carriers are struggling with profitability (when ancillaries are excluded) and that maintaining customer satisfaction is essential to keeping passenger yield up. For legacy airlines, the challenge is to introduce ancillaries, which fit customer needs, and do not come across as another way of charging for something" (Airline Business, 2009). British Airways Head of Customer Service, Abigail Comber, said that "customers booking short-haul flights are mainly focused on price and while food is not a driver for customers when making a booking" (Reals 2017).

Bhaskara (2015) states that the products that customers want the most are those which they are willing to pay a price that often guarantees the provider the highest margins. Chung and Petrick (2013) found that price fairness has just recently become one of the emerging agendas in pricing literature and Bolton et al. (2003) report that consumers appear sensitive to several reference points, including past prices, competitor prices, and cost of goods sold. Chung and Petrick (2013) research results suggested that price comparison and cognitive attribution influences price fairness, which, in turn, leads to emotional response and behavioural intentions. Price fairness comes into play when a product is unbundled and the customer is asked to play a separate price for what would have traditionally being included in the price of the fare (for example, carry-on luggage or, in the British Airways' case, food on short-haul flights). If the fare is lowered to offset the unbundling, passengers should not object; in theory,

however, Bejar (2009) identifies that, in general "the consumer backlash against a-la-carte fees indicates a widespread failure on the part of the airline industry to effectively manage consumer expectations in a changed era". O'Connell et al. (2013) state that LCC's seem to have had success in training their customers to accept fees in return for lower fares; however, full service carriers still have a way to go in this regard. The New York Times (2012) warns against airlines giving the impression that they are nickel and diming customers.

The perception of service levels, especially when it comes to full service carriers, is key. If full service carriers do not balance the requirement to cut cost and drive ancillary revenue - whilst at the same time maintaining customer satisfaction levels - they may make decisions that affect the perceptions of service. A prime example of airlines getting this balance wrong would be the rollback by Austrian and Swiss on their decisions to cut their short-haul economy food offering in 2005/6. Reals (2017) reports that, in the USA, things have just come full circle, with United Airlines and American Airlines announcing in 2015 and 2016, respectively, that they would re-introduce complimentary drinks and snacks on their domestic services.

On the other hand O'Connell and Warnock-Smith (2013) report that commission based ancillaries are generally viewed as non-offensive to the passenger and can be seen as value-added extras, which are sometimes worth paying for. Indeed, reports by Liu (2007) highlight the value in terms of revenue generated and increased loyalty from infrequent travellers when deeper co-operation between the airline and non-related companies is pursued, which in turn allows for frequent flyer program air miles to be earned from the purchases of goods or services from the non-related company. O'Connell and Warnock-Smith (2013) do, however, report that a notable example of pushy commission based cross-selling was the practice of automatically opting passengers into additional travel products such as travel insurance, which led to a full EU ban of this practice in 2010.

O'Connell and Warnock-Smith (2013) found in their research that when the overall rankings were examined it appears that airlines offering airport car parking and those that charge for checked baggage yield the greatest acceptance and willingness to pay, in terms of commission based and unbundled products, respectively. However, it is important to note that that acceptance levels for travellers on full service airlines were lower than for low-cost travellers, both for commission based and unbundled services

3. Research Design

In order to answer the research questions a mixed-methods approach was adopted. A quantitative survey was designed to gauge the current situation in terms of the most prevalent 3rd party revenue streams for airlines and passenger willingness to pay for such services both with standard and discounted pricing. The expert interviews were designed to be future-looking in the assessment of the same two research questions. The Ryanair case-study is incorporated into the study for triangulation purposes of the substantive research findings.

3.1 Survey design

A survey consisting of 20, close-ended questions was answered by a total of 407 respondents. This stage was preceded by expert opinion extracted from an Ancillary Revenue World conference 2017, held by Future Travel Experience (FTE) on 26th and 27th June in Dublin. The conference was attended to obtain further insight into the possible developments of ancillary revenues in the near-future and inform the passenger survey that followed it.

The online traveller survey was based around 'willingness to pay' and 3rd party ancillary revenues. Passengers were asked, firstly, to rank how willing they would be to purchase specific 3rd party ancillary revenue types; the choice of specific ancillaries was informed from both the literature review and the FTE conference. Secondly, passengers were asked if specific offers/discounts would impact their willingness to pay for specific 3rd party ancillary revenue types, which in this instance focussed on hotels. Both questions were preceded by attribute questions around age, length of flight (i.e. short or long-haul), and frequent flyer status.

In terms of sample representativeness, 87% of the 407 respondents said that they travelled for leisure purposes in the last 12 months, 48% for work related purposes, and 34% to visit friends and family. 43% of the respondents were flying long haul (or had flown long haul on their last fight), with 57% stating short haul.

The survey was undertaken, both airside and landside at Shannon airport, on the 1st of July 2017. Concurrently, respondents were invited to participate online via Flyertalk, which is an online travel forum, with 683,826 members, as well as linkages through Facebook and LinkedIn. The location of responses was also split with approximately 30% coming from both Shannon Airport and Flyertalk, 25% coming via Facebook and Linkedin, with the remainder coming from airline industry professionals and delegates attending the FTE ancillary revenue conference.

3.2 Survey analysis technique

Firstly frequency distributions were presented to illustrate the Likert scale data and its variability in an easy to interpret manner. The use of stacked bar charts, in particular, have allowed for a visual comparisons to be made prior to inferential testing.

As the data for this study were not normally distributed and data was typically ordinal in nature, non-parametric significance tests were conducted for this study. A Wilcoxon Signed Rank test compared data obtained from the same sample under two different conditions. It was used here as a post-hoc test, to compare differences in willingness to purchase between pairs of the various revenue/offer types (i.e. two categories for each test).

3.3 Expert interviews and Ryanair case-study

Nine semi-structured expert interviews were carried out in the months of July and August 2017. The purpose of these interviews was to further inform the author about future trends in 3rd party ancillary revenue. Interviewees were targeted to provide an expert opinion from across a range of geographies and sectors within the broader airline sector. The author interviewed executives from 6 different airlines, 2 service providers, and one aircraft manufacturer. Five of the

interviews took place face-to-face; with Air Asia, Southwest Airlines, Embraer, and Flybe completed using Skype. The list of interviewees is shown below (Table 4).

The trends raised throughout the interviews fell into three broad areas: personal connected devices, conversion, and opportunities, which is broadly in line with the current thinking expressed by senior delegates in the FTE Dublin conference.

Name	Company	Title
Aidan Brogan	Datalex	Chief Executive Officer
Bobby Healy	Car Trawler	Chief Technology Officer
Enda Corneille	Emirates	Head of Country
Greg O'Gorman	Ryanair	Director of Ancillary Revenue
John Slattery	Embraer	President and Chief Executive Officer
Julian Khoo	Air Asia	Senior Product manager
Mary Wharton	Southwest Airlines	Director, Network and Revenue
Rory Breslin	Aerlingus	Head of Retail
Susie Reckitt	Flybe	Head of Commercial Development and Ancillary

Table 4 Expert Interviewees

The Ryanair case-study was composed mainly through attendance at the FTE conference in Dublin in 2017 and substantiated through secondary data and literature.

4 Results and Discussion

4.1 Willingness to book

Looking at Figure 8, the majority of respondents booked directly with the supplier of the services (i.e. directly with the hotel/car park provider etc.); in fact, when 'booking directly with the supplier' and 'not applicable' options are excluded, car hire was the only third party ancillary that managed to reach double digit figures, in terms of respondents booking in any other way, at 11%.

Figure 9 shows 'willingness to book' with the same airline that respondents were flying with. There were large variances: for example, for hotels only 7% of respondents booked their hotel directly with the airline, however, 41% said that they would be very willing to do so, assuming there was no difference in the price. This shows an enormous potential for airlines to gain commission based revenue from the sale of hotels via the booking process. Car hire follows similar lines, with only 11% of respondents saying that they booked their last hire car via the airline. However, 39% said that they would be willing to do so, given no difference in price.

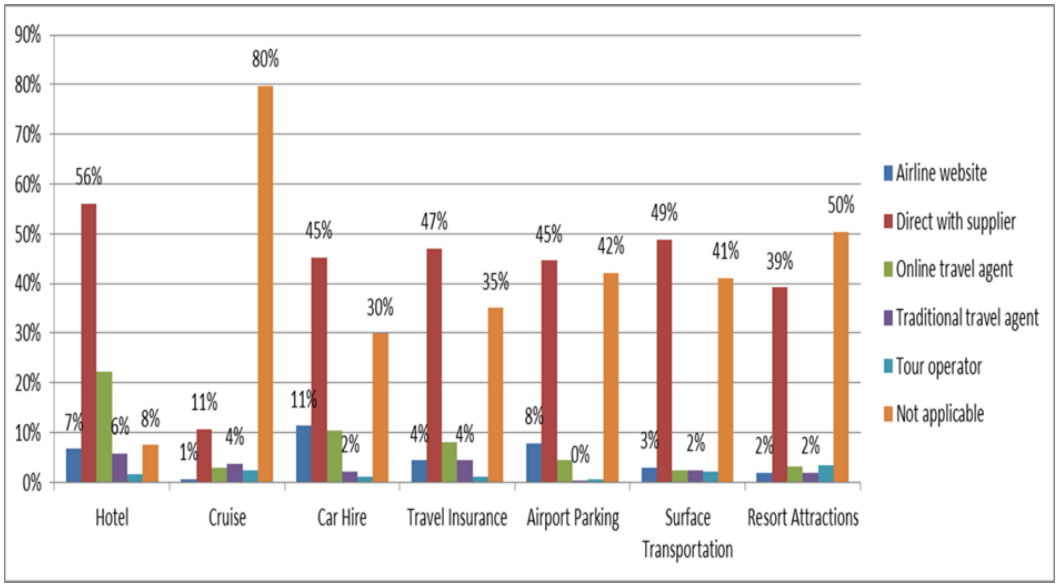

Fig 8: How respondents last booked a selection of 3rd party ancillaries

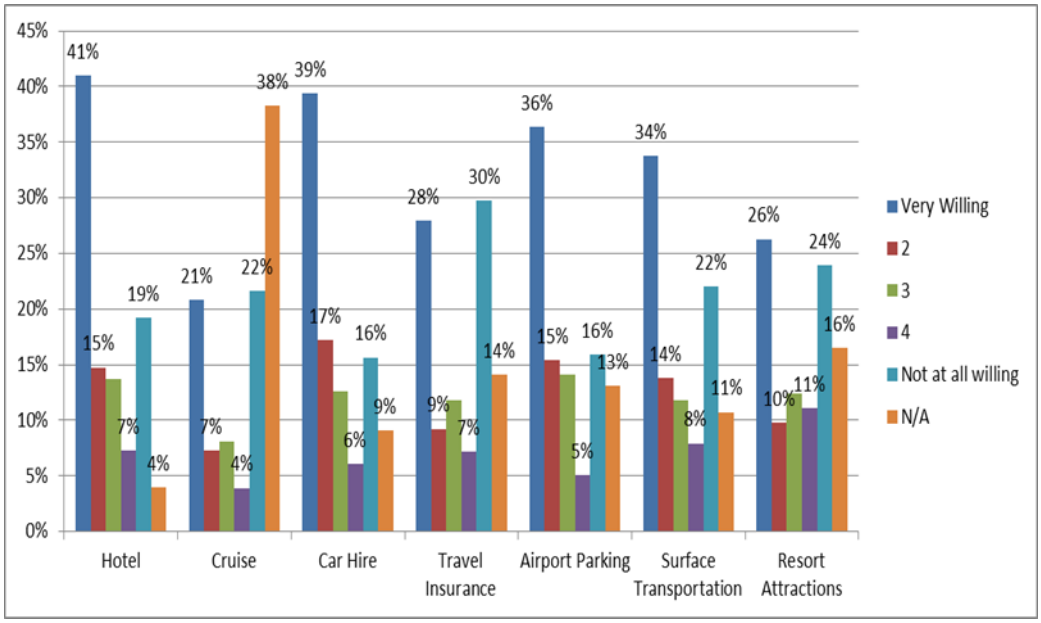

Fig 9: Willingness to book commission based ancillary products via the airline booking process

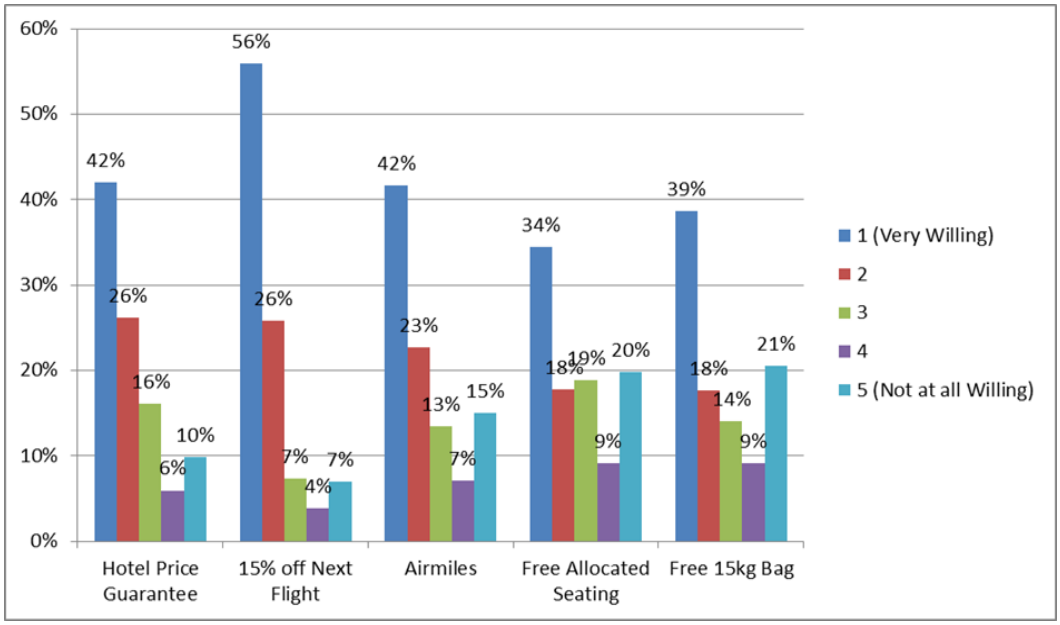

Fig 10: Willingness to book commission based ancillary products via the airline booking process

Respondents were also asked if various offers would make them more willing to move from booking 3rd party services (in this case a hotel) via a direct supplier (Fig 10). The promotions included a hotel price guarantee, 15% off their next flight with the airline, air miles on the entire booking, free allocated seating on board the plane, and a free 15kg bag per booking. As can be seen, 56% of respondents replied that 15% off their next flight would make them more willing to book their hotel via the airline, instead of direct with the supplier. The offer of air miles on the entire booking and a hotel price guarantee were the joint second best promotion when it came to the 'very willing' option.

4.2 Willingness to purchase

In Figure 11, it can be observed that passengers are most willing to purchase Hotel, Car Hire, and Airport Parking as 3rd party service categories from airlines. Large proportions of passengers are unwilling to purchase Travel Insurance and Resort Attractions. A large proportion of passengers selected 'Cruise' as 'Not applicable'.

Figs 12 and 13 disaggregate the responses into short and long haul 3rd party ancillary preferences. Patterns in the revenue types that passengers are willing or unwilling to purchase (or deem to be not applicable) are remarkably similar to those seen for all passengers (Fig 11). This shows that when it comes to 3rd party ancillaries airlines can look to earn commissions on flights of any sector length with the top three priority areas consistently appearing to be Hotels, Car hire and Airport Parking.

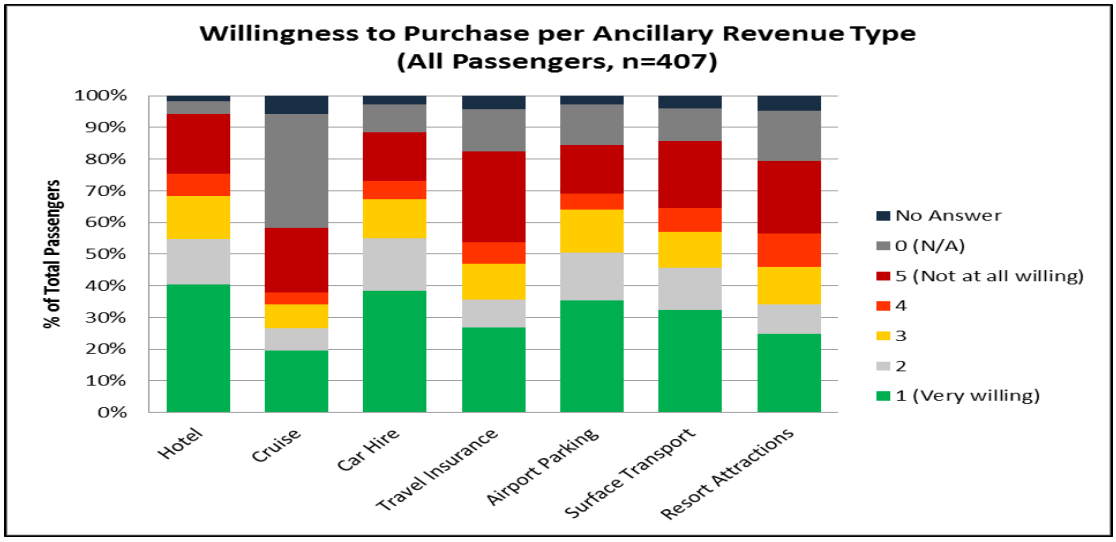

Fig 11: Willingness to purchase of all respondents for each ancillary revenue type

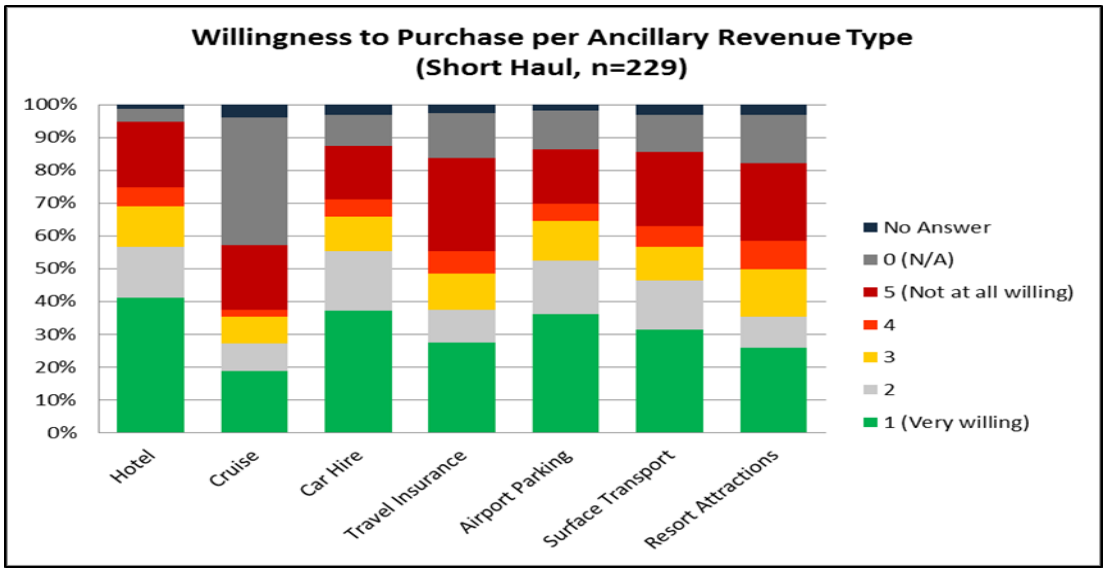

Fig 12: Willingness to purchase of short-haul passengers for each ancillary revenue type

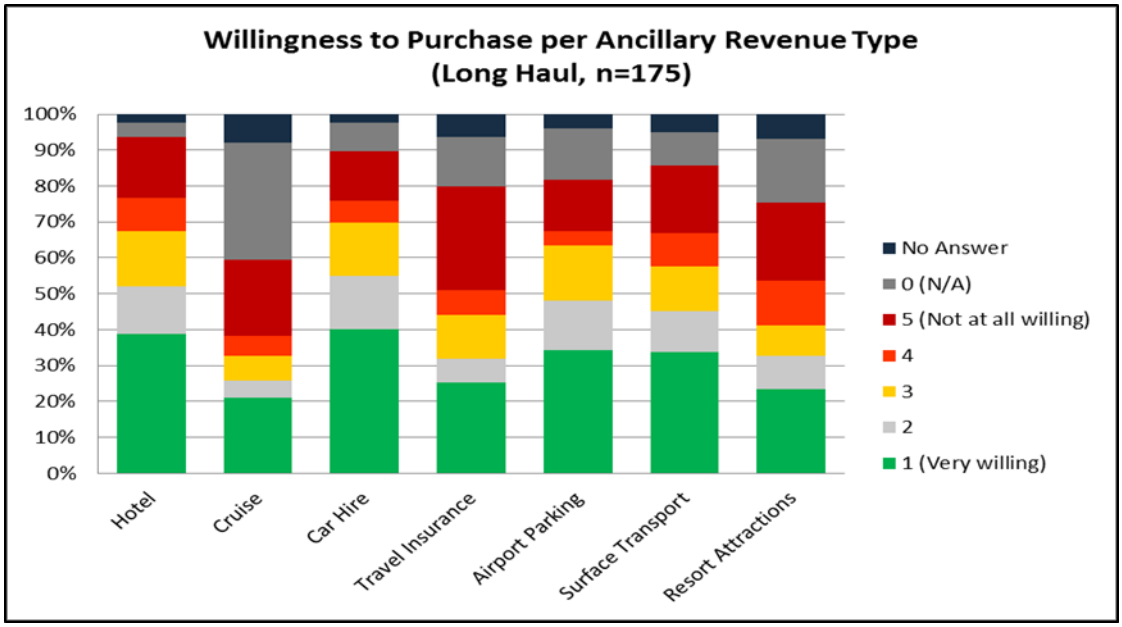

Fig 13: Willingness to purchase of long-haul passengers for each ancillary revenue type

Using the Wilcoxon Signed Ranks test, to a high degree of significance the respondents demonstrated that they were more willing to purchase hotel services than cruise services. Car hire was also considered to be a more popular 3rd party ancillary revenue than hotels at the 2% confidence level. In line with the descriptive results car hire, hotels, and airport parking receive the highest level of statistical significance as 3rd party products that airlines should be focussed on (Table 5).

Table 5: Summary of related-samples Wilcoxon Signed Rank tests

Revenue Type 1	Revenue Type 2	*p*	n	More Willing to Purchase
Hotel	Cruise	<0.001	236	Hotel
Hotel	Car Hire	0.001	355	Car Hire
Hotel	Travel Insurance	<0.001	332	Hotel
Hotel	Airport Parking	0.288	339	-
Hotel	Surface Transport	<0.001	346	Hotel
Hotel	Resort Attractions	<0.001	321	Hotel
Cruise	Car Hire	<0.001	228	Car Hire
Cruise	Travel Insurance	0.186	215	-
Cruise	Airport Parking	<0.001	227	Airport Parking
Cruise	Surface Transport	<0.001	223	Surface Transport
Cruise	Resort Attractions	0.102	219	-
Car Hire	Travel Insurance	<0.001	312	Car Hire
Car Hire	Airport Parking	0.246	332	-
Car Hire	Surface Transport	<0.001	328	Car Hire
Car Hire	Resort Attractions	<0.001	302	Car Hire
Travel Insurance	Airport Parking	<0.001	306	Airport Parking
Travel Insurance	Surface Transport	<0.001	308	Surface Transport
Travel Insurance	Resort Attractions	0.277	291	-
Airport Parking	Surface Transport	<0.001	319	Airport Parking
Airport Parking	Resort Attractions	<0.001	296	Airport Parking
Surface Transport	Resort Attractions	<0.001	306	Surface Transport

Note: Significance is considered to be reached at $p < 0.002$.

4.3 Willingness to pay with offers/discounts

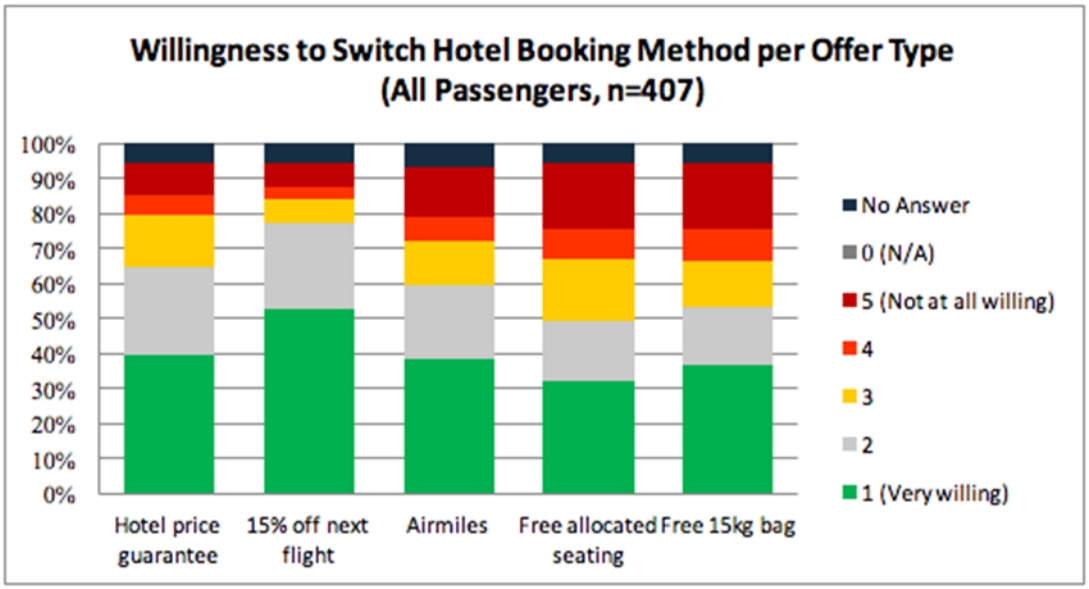

Figure 14: Willingness to purchase for each offer type

The results show that the linking of a hotel stay to a discount off the passengers' next flight and providing a hotel price guarantee were the strongest offers when it came to making passengers more willing to purchase 3rd party hotel services from airlines (Fig 14). When contrasted against the overall willingness to purchase results for hotels, the availability of discounts/offer does not appear to have a marked effect with the exception of providing discounts off future flights (52% willingness to pay versus 40% overall). In this situation, airlines would have to present a strong business case with extra hotel sales commissions in excess of the costs of offering future flight discounts in order to make such offers worthwhile.

Responses were again split between long and short haul passengers but the differences in willingness to pay with offers and discounts added were again shown to be negligible in comparison to the sample as a whole. Therefore there is no evidence to suggest that airlines should be focussing on marketing offers and discounts related to 3rd party ancillary purchases purely based on sector length.

The Wilcoxon Signed Ranks test was repeated to check the preferred offer types among the respondents. It is clear that discounts off future flights and to a lesser extent hotel price guarantees should be the priority areas for airlines seeking to secure a greater take up of commission based selling through their own platforms with the same proviso that the commission rate incomes can suitably exceed the cost of discounting.

Table 6: Summary of related-samples Wilcoxon Signed Ranks tests

Offer Type 1	Offer Type 2	*p*	More Willing to Purchase
Hotel price guarantee	15% off next flight	<0.001	15% off next flight
Hotel price guarantee	Air miles	0.029	-
Hotel price guarantee	Free allocated seating	<0.001	Hotel price guarantee
Hotel price guarantee	Free 15kg bag	<0.001	Hotel price guarantee
15% off next flight	Air miles	<0.001	15% off next flight
15% off next flight	Free allocated seating	<0.001	15% off next flight
15% off next flight	Free 15kg bag	<0.001	15% off next flight
Air miles	Free allocated seating	<0.001	Air miles
Air miles	Free 15kg bag	0.011	-
Free allocated seating	Free 15kg bag	0.311	-

Note: Significance is considered to be reached at $p < 0.002$

4.4 Expert interview results

4.4.1. Personal connected devices

All the interviewees had a similar view point on the use of personal devices but the provision of Wi-Fi on board broadly fell into two camps; the first linking the provision of Wi-Fi directly to the potential revenue that can be made directly from it and the second group linking the provision of Wi-Fi as more of a necessity, as it can increase the strength of the overall offer and will indeed become a hygiene factor. Greg O'Gorman (GOG) said that Ryanair are not looking at the provision of Wi-Fi because of its effect on fuel burn. GOG said that Ryanair had looked at a server on board, instead of Wi-Fi, but that the experience of doing this was that customers expect to have a connected system and that customers will just be disappointed with any system that is provided if it is not connected to the internet. GOG raised the question on how to monetise Wi-Fi, with the fact that no one has yet proven that there is money to be made on it. He said that when someone else on short haul in Europe has proven it works, Ryanair would look at it closer.

Mary Wharton (MW) said that Southwest do not have 100% of the fleet Wi-Fi enabled because of their aging fleet but that this part of their fleet is actually being retired this September 2017 and so Southwest will be at 100% very shortly. MW said that they already do deals with companies to sponsor their free TV on board via your own device (at time of interview it was Dollar Rent-a-Car); MW can definitely foresee a future where they would provide free Wi-Fi for customers to increase commission based revenues by shopping on amazon, for example. MW added that Southwest believe that offering Wi-Fi on board their aircraft gives them an advantage and in fact Southwest know (from their own internal research) that when JetBlue did it before everyone else they got an advantage but it took a while to catch on. JetBlue's implementation of Wi-Fi on board directly added to their gain of market share. MW also stated that Southwest need to try make Wi-Fi cheaper and faster. Julian Khoo (JK) added to the importance of Wi-Fi on board, that Wi-Fi "is the new fuel for selling ancillary revenue" and no matter the length of the flight customers want to be able to connect digitally "now and fast". JK continued by saying that Air Asia are striving to change their entire fleet over from L-Band to broadband to allow for streaming over the next few years. As it stands, 50 out of 220 planes are Wi-Fi enabled and another 1/3 will be added in 2018.

John Slattery (JS) said that that the aircraft Embraer sell are already e-enabled for the likes of maintenance and on-board Wi-Fi and connectivity, especially in the E2 platform. He added that it will be important to have the fastest possible Wi-Fi connectivity. Embraer's motivation is to present to the airline customers a product where they can generate the maximum revenue. JS said that Embraer's project, that all E2 platform aircraft that are sold will be Wi-Fi enabled and that the concept that millennials (and generations thereafter) will be prepared to accept a product that does not offer a connectivity option, will not be tenable, even for a short haul flight. Increasingly people will bring their own iPad and mobile phone on board and use the on-board connectivity. JC and EC agreed, saying that Wi-Fi will go the way of roaming charges. It will become a hygiene factor. It has to be built into the overall proposition/price; "It is a bit like the hotel industry. The airline customer will expect it for nothing. This will be the case for both short and long haul".

All the interviewees agreed that mobile would play an important role in the future of revenue generation in the airline sector, whether it be 3rd party ancillary revenue or indeed any revenue. Bobby Healy (BH) said that it is not just the mobile itself but the adaption of an app. BH said that push communication used to be via email and was not an effective way to communicate but that push notifications via an airline app is fantastic. He said that "once we know where the little blue dot is we know so much more. We can target customers completely differently". BH said that it is too early to say what the conversion rates via an App to purchase will be but that industry statistics say that the propensity to click on a push notification is 50 times more that on an email.

Rory Breslin (RB) differed slightly, saying that Aer Lingus will use timing more that geo-tagging to send out push notifications via an app (flight minus a few days, one day two hours etc.). RB said it is less about location and more about time to flight, as customers are more likely to buy certain products at certain times. EC said that it is all about mobile and being clever about understanding where your customer has been in the past and might like to go to in the future and what travel needs they might have and matching your offering accordingly. MW reiterated the importance of mobile, saying that 60% of their customers now book via a mobile either on app or via a browser.

4.4.2. Conversion

Conversion centres on everything an airline can do to convert a potential customer into a customer or indeed to encourage that customer to spend more. GOG stated that targeting the customer has two levels, firstly, to make sure the customer has greater awareness of the third party ancillaries such as hotels and car hire and, secondly, understanding the right time to approach customers. GOG continued by telling us that it is important that customers are aware of the ancillary and that the company has the right range and quality of product at the right price. Ryanair needs to educate the customer at the start of the booking process and, as they come through the booking process, offer them something that is right for them; the way to do this is through the use of various forms of data/meta data. GOG pointed out that Ryanair has the advantage in that they know where and when customers are going and how many of them are going and has previous purchase history. Ryanair has the data and they do not need to spend the money on google advertising, since they are sitting on the data which is a key advantage

over other airlines. Since the Autumn of 2016, all customers who book via Ryanair have to register with the airline in order to book a flight and this is an enormous benefit.

The second part of targeting a customer is understanding the right time to contact or sell to the customer. As BH pointed out, different products are booked on different time frames and if you understand when the customer is more likely to book a product, you will obviously increase conversion. As Enda Corneille (EC) pointed out, certain ancillaries should not be sold during the booking process; that car hire is an impulse buy, whereas hotel is much more complicated; car is a commodity, while hotels are not. EC pointed out that there is much greater emotional attachment to certain types of hotel bookings that an airline might not want in the booking path. The airline will want to make the booking path as straight forward as possible and then encourage conversion afterwards. Julian Khoo (JK) agreed, stating that Air Asia are actively taking ancillaries out of the booking path (in some cases, to just post payment), as they find that this increases the conversion rate. BH pointed out that there are already clear times to encourage a customer to book certain products; he gives the example of what an airline might sell on-board a flight (e.g. the on-board phase might be a great time to book the likes of hotel transfers).

EC also delved into why certain OTA's (online travel agents) have a much greater conversion rate when it comes to the likes of hotels, than hotels booked via an airline; EC pointed out that the likes of Expedia are perceived by the public as a travel agent and they have the entire range of products in their inventory that a traditional travel agent might have.

AB pointed out that the use of data to make more relevant offers to the customer can dramatically increase conversion. He gave the example of JetBlue who made an additional $280 million USD in incremental profit solely by offering the exact same products but doing so in a segmented way. EC pointed out that he does not think that one-to-one segmentation will exist in the short to medium term for several reasons, including the new EU rules on Data privacy, but that meta-data will be used to give generalist conclusions on customer segments.

JS added that in the longer term he believed this might come down to one-to-one personalization, going by previous behaviour, as well as looking at what a broader cohort of customer might purchase; however, in the short term, it will be more segment based. BH added that machine learning gives us only an incremental optimization. If you are making a margin of 30%, it may give you a 31/32% - that incremental advantage in a commodity world is the difference between winning and losing. AB also pointed out that anything that can help make the selling process easier for the consumer is bound to increase conversion and that the next two waves of real dynamic pricing will be, firstly, that the offer does not exist until the customer requests it and, secondly, the area of artificial intelligence and machine learning. The pricing of ancillary will go from manual to AI and machine learning to control the offer. AB also gives the example of an airline they work with that includes the weather into their offer modelling, in order to educate the consumer about the opportunities that may exist in the region that the airline is selling tickets to; this might be anything from the weather favouring wind surfing to the perfect time to lie by the beach. AB also gave the example of the use of We Chat in China, where users can buy airline tickets straight out of their bank account. He pointed out that in Europe all banks in the next two years will have to offer their customers the ability to connect directly to their bank accounts from digital providers. BH echoed the importance of ease of use, highlighting the importance of one touch purchasing via an airline app.

In terms of the range of products offered as ancillaries, EC pointed out that it will be hard to stray from the trinity of hotels, car hire, and insurance[1] in the short to medium term. GOG added to this by saying that Ryanair wanted, in general, to improve the sales of what they are currently offering, rather than to go into new products, with the exception of in-resort activities, which will be launched for sale this autumn via the Ryanair app. He did add that the sale of other airline flights via Ryanair.com remains on the radar with the launch of the sale of seats on Air Europa already in 2017 and the potential tie up with Norwegian and Aer Lingus for the sale of long-haul flights. EC added that the likes of Ryanair and easyJet have huge audiences but would question whether one can stray too far from the sale of air travel related product.

4.4.3 Market opportunity

JS stated that both the CEO's of WOW and Ryanair have both said that in the future passengers will not pay anything meaningful to fly (in terms of the basic ticket price); all their revenues will stem from ancillaries (including 3rd party services).

GOG stated the big opportunity is that Ryanair have the data (with 500 million website visits each year), "we also know when they (the passenger) is engaging with our mobile device; a lot of customers check-in via the app so that gives us the opportunity every time they use the app to offer them something that is relevant at that point in time that might be as simple as if the customer is in London offer them a ticket to Madame Tussauds or if they are going to France a ticket to visit Notre Dame". GOG goes onto say that Ryanair can offer the customer something relevant at the time, i.e. fast-track at security or even when they are at the airport drive customers to retailers in the airport with the use of relevant offers.

Aidan Brogan (AB) tells us that, on average, 1% of people book a hotel at the airline booking stage and 2/3% rent a car, whereas on Expedia 50% plus buy a flight and hotel. Airlines want more of this market and the challenge for the airlines is to educate the customer. Price and marketing and educating the customer will drive this conversion. BH continued on the same vain but says that car hire is between 2/5%. AB stated that the customer has to be able to trust the airline and the hotel presented has to be relevant. JK states that Air Asia are looking towards retail as the future of ancillary revenue. Air Asia have launched their own retail website - www.bigdutyfree.com - and Air Asia sees the potential for this site to drive revenue as one of the key drivers for them in the medium term.

JS states that the flight is only one small part (of the travel experience) but is still the stickiest part of the value chain. If the airline can influence spend of the customer from when they book the ticket, and throughout the journey, the opportunities are enormous; airlines have the ability to own the customer for the full travel experience. JS continued by saying that the airline that runs the flight experience is the most trusted party in the travel experience and so the opportunity is there for the airline to reach out and own more parts of the revenue generating experience.

AB states that airlines historically do not have to deal with customers; 90% of the airline dealt with operations, thus airlines still are surprised when you arrive at the check-in desk. The

[1] Cross-reference the survey data, which actually showed a low willingness to pay for insurance related 3rd party products

market opportunity for the airline to understand the customer and to sell tailored products is enormous. JS added to this by saying that the expectation is that 3rd party ancillary revenue will continue to grow to a meaningful percentage to the top line revenue for the airline sector and that the quantum and quality (margin) of revenue will continue to increase. The airlines that accept and adopt big data will be the winners. BH concluded by saying that on a flight of 200 people, at the moment, 20 book cars, 2 are captured by the airline, and the rest leak to other channels. The airline's target has to be to get from 10% to 100% of the 20. The airline has to have massive advantage over everyone else.

4.5 Ryanair case results

Ryanair is one of the world's leading airlines when it comes to the percentage of revenue they derive from ancillary revenue. Sorensen (2016) reports that Ryanair were ranked 6th in the world in 2015 when it comes to revenue generated from ancillary revenues (€1.8bn in 2016 as shown in Table 7) and 5th in the world when it comes to the percentage of revenue that derives from ancillary revenue.

Table 7: Ryanair ancillary spend per customer for all customers

	2012	2013	2014	2015	2016
Customers (M)	79	81	91	106	120
Profit after tax (M)	€569	€523	€867	€1,242	€1,316
Profit per customer	€7	€6	€10	€12	€11
Ancillary revenue (M)	€1,064	€1,247	€1,394	€1,569	€1,800
Ancillary revenue per customer	€13.47	€15.40	€15.32	€14.80	€15.00

M=Millions

In the 2017 results session of the Dublin FTE, Michael O'Leary and Neil Sorahan (Ryanair CFO) commented that the ancillary revenue generated from car hire and on-board revenue were strong in 2016 but the revenue generated on the commission earned from the sales of hotels was soft. Looking towards the full year, 2017, Michael O'Leary stated that Ryanair were projecting strong revenues from unbundled products such as reserve seating, priority boarding, and fast-track but also from the re-launch of Ryanair Holidays. By May 2017, 22 million passengers had subscribed to My Ryanair and the Ryanair App had been downloaded 21 million times. Greg O'Gorman, stated in his expert interview that Ryanair intend to use their app to incentivise specific purchases by the autumn of 2017. O'Gorman continued by saying that initially Ryanair would look to drive hotel bookings in this way.

In response to a question at the FTE Michael O'Leary said that 45% of all Ryanair passengers book ancillary revenue products. He also said that Ryanair expected to hit 30% of its sales from ancillary revenue in the full year of 2017. This is up from 26% in 2016 and 24% in 2015 (Ryanair, 2016).

Ryanair made €33.33 per customer that bought ancillary services from Ryanair in 2016 (Table 8). The €33.33 is a factor of a conversion rate of 45% (O'Leary 2017), with ancillary revenues of €1.8billion in 2016 and 120 million passengers. For every 1% change in conversion

(assuming everything stays pro-rate), Ryanair's revenue will change by €40million; and, for every €1 increase in average spend, their revenue will increase by €60million.

Table 8: Ryanair ancillary spend per customer who purchases an ancillary

	Conversion ratio	Customers (M)	Customers that buy ancillaries (M)	Ancillary spend per customer	Revenue
As is	0.45	120	54	€33.33	€1,800
1% increase in conversion	0.46	120	55.2	€33.33	€1,840
€1 increase in spend	0.45	120	54	€34.44	€1,860

M=Million

Source Ryanair and O'Leary 2017

O'Leary (2017), at the same conference, also stated that he expected that the revenues generated by My Ryanair to greatly exceed the revenue generated by the airline. The CEO stated that the 'potential is fantastic' and that Ryanair would set their sights on the website Booking.com and go direct to hotels, offering them a low 5% rate of commission, instead of the commission rate of 12% -14% from Booking.com. Ryanair would then offer the customer the 5% off as a discount, so in essence Ryanair, initially, would be earning nothing on the transaction but would be building market share. This building of market share by competing at very low margins whilst gaining a large percentage of their revenue from commission from external suppliers that use their website, in essence as a market place, is very similar to how Amazon.com works.

When Ryanair launched its package holiday business at the end of 2016, it declared that they wanted to become the "Amazon of Travel". Ryanair wants to be the trusted hub for anyone wanting to buy travel related products, be they flights on Ryanair or other airlines (Jacobs 2017). Jacobs, the CMO of Ryanair, stated that Ryanair wanted to be involved in the sale of flights, even in countries where they have no flight operations at all. He said that Ryanair.com was now the world's more visited travel website and that Ryanair could leverage this to sell flights from the USA to South America and take commission sales. Ryanair, as part of year 4 of their Always Getting Better program intends to launch several initiatives to encourage customers to use them as a trusted travel hub, "the Amazon of Travel". Ryanair plan to launch Ryanair Holidays into all markets, interconnecting flights (initially Ryanair to Ryanair, then Ryanair to other airlines), as well as better search options, travel guides, express bookings, auto checking, and Ryanair Transport. As part of these changes, Phase 2 of "My Ryanair" will be launched (Ryanair 2017). Membership of "My Ryanair" is forecast to hit 30 million by the end of 2017. Membership of "My Ryanair" was required on all bookings after the 1/11/16. If a person making a booking does not have an account, then an account is automatically generated at the payment stage. Ryanair's plan in very much in line with IATAs "One Order" initiative, helping airlines turn from seat-centric to customer-centric organisations with enhanced personalisation capability and the sales of complementary products to the core flight element.

5 Overall conclusions

This paper has shown that there is potential for further 3rd party ancillary revenues for airlines in the coming years. The substantive survey indicated that passengers are willing to pay for specific 3rd party ancillaries; namely car hire, hotel accommodation and airport parking; and

that some promotional offers can increase the baseline willingness to pay (e.g. discounts for future flights). It was also found that travel insurance as a 3rd party revenue stream has started to soften with services like airport parking gaining more traction in the survey.

Some important future trends have also been outlined by nine industry experts that are key to converting this willingness to pay into bottom line revenue for airlines namely Personal Connected Devices; not so much for unbundled Wi-Fi revenue, but for the way it can unlock the sale of further commission based products and services during flight; Conversion; in terms of using forced and optional account registrations to enhance data, the timing of offers and therefore conversion; and finally by making the most of potential market opportunities given the air carrier is the 'stickiest', most critical part of the travel experience.

Significant opportunities exist for airlines of all types to generate increased revenues by going beyond traditional a-la-carte and frequent flyer ancillaries and re-focusing on a new wave of 3rd party ancillary revenues. The core to generating these increased revenues is to understand how to increase both customer awareness and customer conversion. The accumulation and correct use of customer data (in conjunction with suppliers), along with the understanding that the customer now operates in a digital environment is key to converting willingness to pay into bottom line revenue. For carriers like Ryanair this has meant the design of enhanced personalised platforms like My Ryanair, which will enable it to leverage its strong internet presence to act as a one-stop-shop travel retailer with much greater commission based revenue potential. Future research should provide an in-depth analysis of how such platforms can allow airlines to increase 3rd party, unbundled and FFP related ancillary revenues.

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