IBN HALDUN UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF AIR TRANSPORT MANAGEMENT

MASTER THESIS

ANCILLARY REVENUE FOR AIRLINES: ANALYSIS OF WILLINGNESS TO PAY FOR ANCILLARIES IN TERMS OF TRAVEL AND CUSTOMER ATTRIBUTES

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THESIS SUPERVISOR
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ISTANBUL, 2023

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by

CEMİLE ALBALOOSHI

A thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of Master of Science in Air Transport Management

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APPROVAL PAGE

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science in Air Transport Management.

Thesis Jury Member

Title - Name Surname	Opinion	Signature
_____	_____	_____
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This is to confirm that this thesis complies with all the standards set by the School of Graduate Studies of Ibn Haldun University:

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ACADEMIC HONESTY ATTESTATION

I hereby declare that all information in this document has been obtained and presented by academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ÖZ

HAVAYOLLARINDA EK HİZMET GELİRLERİ: SEYAHAT VE MÜŞTERİ ÖZELLİKLERİ AÇISINDAN EK HİZMET ÖDEME İSTEKLİLİĞİNİN ANALİZİ

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Mayıs 2023, 87 sayfa

Son on yılda, yan gelirler, havacılık sektörü için çok önemli hale gelmiştir. Havayolları ek gelir payı hızla artmış ve genel gelir akışına önemli katkıda bulunmuştur. Havayolları; değişken yakıt fiyatları, operasyonel maliyetler ve küresel ekonomik durgunluktan kaynaklanan zorluklarla karşı karşıya kalmıştır. Yüksek maliyetli yapı ve rekabetçi piyasa koşulları, havayollarını uçuş dışı hizmetlerden ek gelir elde etme fırsatları aramaya itmiştir. Bu nedenle havayolları, mevcut ek gelirlerinden daha fazla gelir elde etmek için daha yenilikçi yaklaşımlar aramaya başlamıştır.

Bahreyn'deki pazar araştırması, katılımcılar arasında önceki satın alma geçmişleri ve gelecekteki seyahatlerinde bilete dahil olmayan ek hizmetler için ödeme yapma isteklilikleri hakkında sorular sorarak yürütülmüştür. Bu çalışma, bir müşterinin yıllık gelirinin, seyahat sıklığının, taşıyıcı tipinin (müşteri tercihi ve özellikleri), uçuş süresinin, seyahat amacının ve kabin sınıfı türünün (seyahat özellikleri) ödeme istekliliği üzerinde bir etkisinin olup olmadığını incelemeyi amaçlamaktadır. Ayrıca müşterilerin demografik profilleri ile satın alma tutumları arasında herhangi bir ilişki olup olmadığını anlamak için müşterilerin geçmiş satın alma davranışları incelenmiştir.

Yapılan araştırmanın sonucuna göre; ek hizmetler ödeme istekliliği ile seyahat sıklığı arasında güçlü bir ilişki olduğu tespit edilmiştir. Öte yandan, seyahatin amacı ile müşterilerin satın alma eğilimleri arasında doğrudan bir ilişki bulunamamıştır. Ayrıca, müşterinin yıllık gelirine, taşıyıcı tipine, uçuş süresine ve kabin sınıfı tipine göre belirli yan ürün ve hizmetler için ödeme istekliliğinde farklılıklar olduğu tespit edilmiştir.

Anahtar Kelimeler: Havayolu Yan Gelirleri, Müşteri Satın Alma Eğilimi, Müşteri ve Seyahat Özellikleri, Ödeme İstekliliği.

ABSTRACT

ANCILLARY REVENUE FOR AIRLINES:
ANALYSIS OF WILLINGNESS TO PAY FOR ANCILLARIES IN TERMS OF TRAVEL AND CUSTOMER ATTRIBUTES

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Over the last decade, ancillary revenue has become very important for the aviation industry. Ancillary revenue shares have increased rapidly and contributed to the overall revenue stream: fluctuating fuel prices, operational costs, and the global economic recession challenge airlines. The high-cost structure and competitive market conditions pushed airlines to seek opportunities to generate additional income from nonflight-related services. Therefore airlines seek innovative approaches to gain more revenue from their ancillaries.

Market research in Bahrain was conducted among travelers by asking about their previous purchase history and willingness to pay for unbundled ancillaries in their future travels. This study aims to examine whether a customer's annual income, travel frequency, carrier type (customer choice and attributes), duration of the flight, travel purpose, and cabin class (travel attributes) have an impact on the willingness to pay (WTP) of airline ancillaries. Also, the customer's past purchase behavior is studied to understand if there is any relation between the demographic profile of customers and purchase attitude.

According to the results of the survey, it is found that there is a strong relationship between travel frequency and WTP for ancillaries. On the other hand, there was no direct relation between the purpose of travel and customers' purchase tendency. It is also found that there are differences in WTP for particular ancillary products and services based on the customer's annual income, carrier type, length of flight, and cabin class.

Keywords: Airline Ancillary Revenue, Customer Purchase Tendency, Customer and Travel Attributes, Willingness to Pay.

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LIST OF SYMBOLS AND ABBREVIATIONS

BHD	Bahraini Dinar
CASK	Cost for Available Seat Kilometers
CRM	Customer Relationship Management
FFP	Frequent Flyer Program
FSC	Full Service Carrier
GCC	Gulf Cooperation Council
Gen Z	Generation Z
IATA	International Air Transport Association
IFE	In-Flight Entertainment
KMO	Kaiser–Meyer–Olkin
LCC	Low Cost Carrier
MEA	Middle East Airline
P	Probability
PED	Portable Electronic Devices
QR	Quick Response
RASK	Revenue per Available Seat Kilometers
TV	Television
VFR	Visiting Friends and Relatives
Wi-Fi	Wireless Fidelity
WTP	Willingness to Pay
$\leq$	Less Than or Equal to
y^t	Observation on the Dependent Variable
β	Population Mean
σ^2	Variance of the Error Term

CHAPTER I

INTRODUCTION

The aviation industry is undergoing rapid changes and transformations due to globalization and technological enhancements over the last decade. With the rapid increase in demand, new airlines entered the sector, resulting in high market competition. As a result of the increased competition, the profitability of the aviation sector dropped drastically. The airline industry has struggled with low returns on profit due to increased rivalry and economic and political fluctuations through the decades. Airlines face many financial difficulties because of rising fuel prices, operational costs, and the global economic recession. Especially fluctuating fuel cost puts companies into a more challenging position over the years. All these factors pushed airlines to seek new areas to gain additional revenue sources.

According to IATA, net profitability for an airline was less than 5% between 2000-2015 which is considered very low compared to the other sectors. (IATA, 2021, p.17). The importance of ancillary revenue is recognized and got into focus, especially after the global pandemic. As the travel industry started to recover, ancillary services have become a vital revenue branch for airlines. After the global pandemic, customers have begun to seek more flexible, personalized airline services and offers. Even during difficult times, the power of ancillary revenue continued to grow even though the industry showed a declining trend, with a significant drop during 2020, which continued in 2021. However, ancillary revenue displayed increased tendencies despite the adverse effects of the pandemic. In 2019, ancillary revenue per passenger was $23.91, estimated to grow to $27.60 in 2021 (CarTrawler, 2021, p.2).

Since the importance of ancillary revenue is comprehended very well by most airlines globally, they have started to seek more innovative approaches to gain more income from new types of ancillaries as well as current ones. It has been standard procedure for low-cost carriers (LCC) to charge an extra fee for additional services. Also, it

started to be more common for full-service carriers (FSC) to set a different amount for additional ancillaries to obtain more income other than their core operations. (Škurla Babić, Ozmec-Ban, and Bajić, 2019, p.133).

Since airlines are aware of the positive impact of ancillary revenue on their overall profitability, they have started to develop strategies to sell commission-based third-party services in addition to unbundled ticket-related ancillaries. The rapid increase in the ancillary products in the market changed the dynamics of the sector. Passengers used to be offered all-inclusive ticket fares, which included most of the services before, during, and after the travel. However, a different range of branded fares offers various options along with the core ticket price. (Fiig, Le Guen, and Gauchet, 2018, p.1) It is essential to perceive customer satisfaction and expectations due to the nature of the service provided by those airlines traditionally.

Especially for FSCs, it is more important to differentiate the production facilities and increase the value-added range of products to maintain customer satisfaction while increasing revenue margin. For example, once FSCs start to charge seat selection which used to be free of charge, it is highly possible to receive a negative return from the passengers due to user habits over the years. Understanding and studying how much passengers are willing to pay for ancillaries is necessary to achieve overall success and maintain customer satisfaction by differentiating the product scale.

This thesis studies customers' purchase habits by focusing on airline ancillaries' willingness to pay (WTP). The historical development and importance of the ancillaries are examined in the second part of the study. Also, the general framework of ancillary revenue and main ancillary types are discussed by studying examples from the market. In the third part of the study, WTP for ancillaries is examined regarding travel attributes (carrier types, duration of flight, and cabin class); and customer features and choices (income, travel purpose, and travel frequency). Lastly, market research has been done, and the results are discussed in detail.

In the research, a market study was carried out with 281 people who traveled from Bahrain before. Data is collected with both online and face-to-face methods. It is aimed to test if there is any relation between customer and traveling attributes with WTP for

ancillaries. WTP for unbundled products has been examined in 3 different categories according to the flight duration, such as short, medium, and long haul. The customer responses differ according to the flight duration since it is crucial to choose ancillaries overall. Also, participants' opinions were asked about overall unbundled products and services and the sales channel preferences.

CHAPTER II

DEVELOPMENT OF ANCILLARY REVENUE AND ANCILLARY REVENUE TYPES

2.1. Ancillary Revenue

2.1.1. Historical Development of Ancillary Revenue

Traveling used to be a symbol of prestige for the people who could fly, where they could eat luxury meals and drink exclusive beverages. For the last couple of decades, airlines started to change their strategy. They decided to reach out to more people with the help of growing technology, demand, and market deregulation. (Exploring, 2021) Once flying reached to masses, ticket prices started to reduce in line with the increased rivalry over the years. This pushed some airlines to differentiate their prices by unbundling their services to offer more compatible rates for different types of customers. As a result of this new emerging market, the low-cost carriers initiated ancillaries by unbundling the main fare and other service fees (Picardo, 2022, p.1).

With the emergence of low-cost carriers, the aviation market structure is changed. Unlike previous years, the usage of airways for traveling became widespread globally and reached different types of customer profiles. The main form of low-cost airlines is getting more customers by offering the lowest fare level in the market. They separated primary services, such as baggage, food, in-flight entertainment, etc., from the ticket fare. This opened new doors for new customer segments in the market. With more passengers welcomed on board, the demand for new destinations and new product types changed. With the increased competition, the expectation and perception for service and product levels for different airlines arise (Fourie & Lubbe, 2006).

Although this new aviation model welcomes more passengers on board and provides accessibility to many newcomers, it puts airlines in a more challenging position to maintain profitability. Also, airlines face many financial difficulties because of high

competition in the sector, increasing fuel prices, operational costs, and global economic recession. Mainly fluctuating fuel costs affect companies negatively. According to IATA, economic activity globally recovered well in 2021 since the effect of the pandemic faded gradually. This economic mobility pushed the demand further and resulted in higher fuel prices. Also, insufficient fuel supply led to volatility in crude oil prices. (IATA, 2022, p.13). Therefore, airlines started to seek more creative ways for their product offers to increase their profit.

2.1.2. The Importance of Ancillary Revenue

Since airlines are trying to expand their revenue margins, the airline industry has become increasingly dependent on ancillary revenues. In 2013, the total market ancillary revenue amount was above 40 billion. Over the six years, it increased more than 2.5 times and amounted to 109.5 billion U.S. dollars in 2019. With the coronavirus outbreak, ancillary revenue in 2020 dropped to 58.1 billion U.S. dollars. As the effect of the pandemic is reducing, ancillary revenue shares started to increase all over the aviation sector (Figure 2.1). According to CarTrawler's Worldwide Estimate of Ancillary Revenue report, contrary to the average fare recorded by IATA, which showed a declining trend during the pandemic, ancillary revenue displayed annual increases even during the most challenging period (CarTrawler, 2021, pp. 1-2).

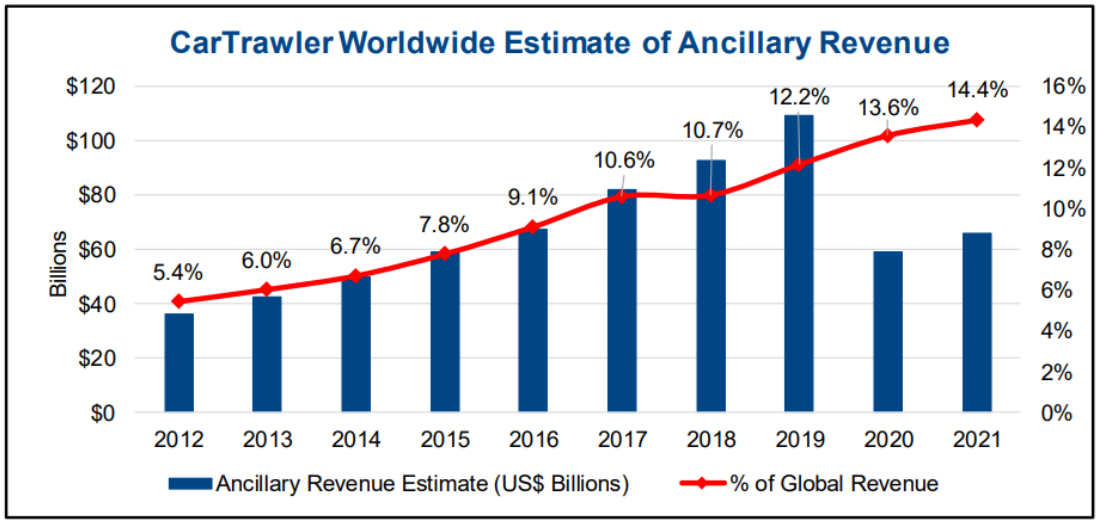

Figure 2.1. CarTrawler Worldwide Estimate of Ancillary Revenue

Source: CarTrawler, 2021, p.2

As stated above, airlines made huge losses during the pandemic due to flight cancellations and government restrictions. Airlines are more focused on revenue-based strategic plans to recover from this significant loss which carried the sector years back in terms of profit margins. As the aviation sector almost returns to 2019 levels, there is ample opportunity in the ancillary market because passengers expect more flexible and personalized airline offers. Airlines must apply more innovative and precise product offers to adapt to changing customer needs and expectations.

2.1.3. Ancillary Revenue Types

According to the ancillary revenue types model (Figure 2.2), ancillaries are categorized as core products, unbundled products, and commission-based ancillaries. Core airline products consist of non-revenue services provided by default, such as safety, schedule, and reliability. Besides the airline's core services, un-bundled products are initially part of the ticket and separated later to differentiate the product range. Commission-based ancillaries are usually additional services such as car rental, insurance, hotel, etc. These services can be modeled as before, during, and after flight phases, offering airlines more potential to add value to their revenue (O'Connell & Warnock-Smith, 2013, p.13).

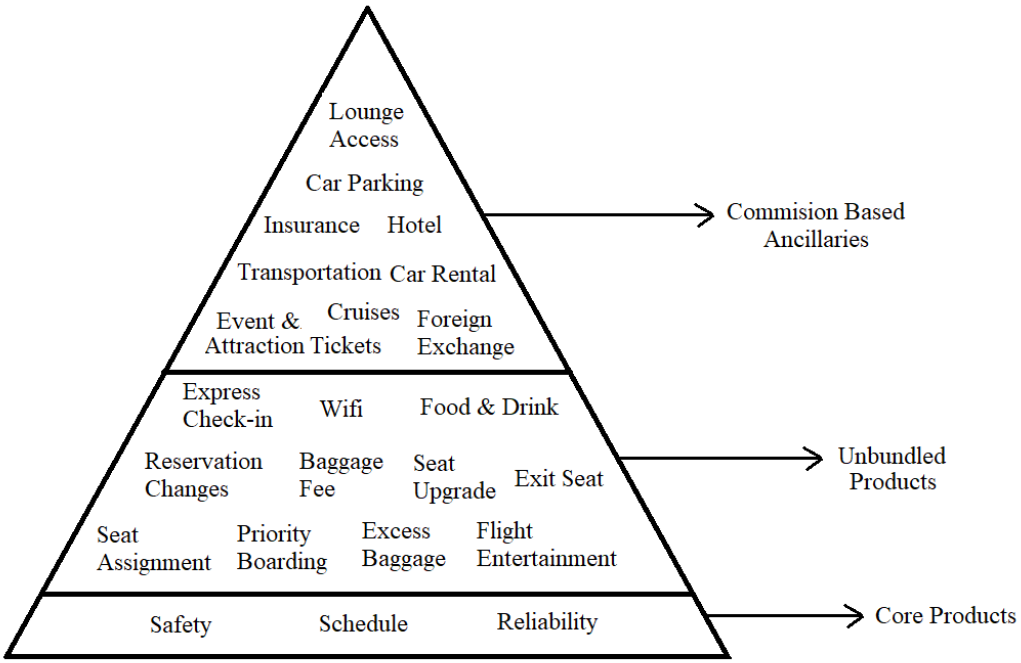

Figure 2.2. Types of Ancillary Revenues

Source: O'Connell, 2013, p.13

We can also categorize unbundled products as directly related to flight services (a-la-carte ancillaries) and non-flight-related ancillaries (commission-based offers). Baggage fees, seat upgrades, priority boarding, flight entertainment systems, and seat assignments are categorized as a-la-carte ancillaries. On the other hand, car rental, hotel, travel insurance, and lounge access are non-flight ancillaries considered commission-based third-party ancillaries (Atik, 2020, p.2622). LCCs started to make ancillary offers by unbundling the flight-related services from the core products to attract price-sensitive passengers. Especially with the increased internet usage, customers browse ticket prices in real-time and compare them with other available options. This pushes airlines to promote the lowest unbundled fare to reach more potential customers. On the other hand, FSCs are more focused on value-added products associated with frequent flyer programs due to the concern of customer satisfaction.

Since the importance of ancillary revenue is comprehended very well by most airlines globally, they have started seeking innovative approaches to gain more income from current ancillaries. Also, they create new methods to increase the margin with new techniques and more efficient ways. Ancillary revenue sources change from one airline to another because of the difference in market conditions, environmental factors, customer segmentation, and rivalry. The product range and demand for each ancillary significantly differ from one to another. In the next section, ancillary revenue types are discussed in detail, and some market examples are studied to understand the different applications in the market.

2.1.3.1. Additional Baggage

Baggage is the highest revenue-performing field among all the other ancillaries. Earnings associated with additional baggage services continue to be the leading ancillary source after the pandemic for the airline industry. Ancillary revenue is significant to airlines, with baggage fee revenue growing, worth $20.9 billion in 2021. As ancillary revenue was worth $65.8 billion worldwide in 2021, this is a significant figure for the sector. Airlines seek to understand changing consumer needs and provide proper selections for their customers to keep this key growth driver for the industry (CarTrawler, 2022, pp. 1-2).

Global Estimate of Baggage Fee Revenue disclosed $20.9 billion for 2021, less than the 2019 record of $32.9 billion. However, the percentage share of baggage revenue increased in 2021 compared to the pre-pandemic levels. There is continued progress in baggage as a percentage of global airline revenue. As summarized in Table 2.1, global baggage revenue is estimated 2021; 4.5 percent, 2020; 4.8 percent, and 2019; 3.9 percent of worldwide overall airline revenue (CarTrawler, 2022, p.2).

On the other hand, global baggage revenue is estimated 2021; 32 percent, 2020; 29 percent, and 2019; 30 percent of worldwide overall ancillary revenue (CarTrawler, 2022, p.2), (IATA, 2022, p.1). The importance of baggage revenue is well understood, especially after the break of Covid-19. Even though the most challenging time in the aviation sector, baggage revenue share (32%) to total ancillary revenue increased exponentially compared to the other ancillaries. This can provide a stable income for the airlines even during unstable and challenging times.

Table 2.1. Global Estimate of Airline, Ancillary and Baggage Revenues

Revenue Category	2019	2020	2021
Worldwide Airline Revenue	840	350	462
Worldwide Ancillary Revenue	109,5	58,1	65,8
Global Baggage Fee Revenue	32,9	16,9	20,9
Ancillary Revenue % of Airline Revenue	13,0%	16,6%	14,2%
Baggage % of Airline Revenue	3,9%	4,8%	4,5%
Baggage % of Ancillary Revenue	30%	29%	32%

Since baggage is the top ancillary performer for all types of carriers, most airlines apply different baggage policies with various options. Figure 2.3 shows key baggage policies for 25 leading airlines for FCCs and LCCs from other regions. Most airlines charge fees for checked bags and apply add-on fees for large carry-on bags. The general baggage policy for most airlines is either all-inclusive baggage fare or differentiated for different branded fares. Also, airline websites have a pre-payment option that allows passengers to pre-pay bag fees while booking to avoid long waiting periods and speed operations at the airport. The pre-paid baggage system produces better revenue results by enabling airlines to charge the amount in advance. Most

airlines provide baggage fee calculation tools on their website to provide information to their customers (Sorensen, 2022, p.5).

Carrier Based In:	Leading 25 Carriers	General Baggage Policy			Ancillary Revenue Methods	
		All Fares Include Baggage	Fee or Free Determined by Fare	Where Fees are Charged *(see notes)*	Fee for Large Carry-Ons or Restrictions	Pre-Pay Bag Charges in Booking Path
Asia / Pacific	AirAsia		🧳	Network-wide	*Fee for +7 kg*	●
	Air China	🧳				
	Cathay Pacific	🧳				
	Korean Air	🧳				Excess bags
	Qantas	🧳				Excess bags
	Singapore	🧳				Excess bags
Europe	Air France/KLM		🧳	Network-wide		●
	British Airways		🧳	Network-wide		
	easyJet		🧳	Network-wide	*Fee applies*	●
	Lufthansa		🧳	Many routes		●
	Ryanair		🧳	Network-wide	*Fee applies*	●
	Turkish	🧳				Excess bags
Middle East	Emirates	🧳				Excess bags
	Qatar Airways	🧳				Excess bags
Latin America	Avianca		🧳	Network-wide	*Basic fare: Fee*	●
	LATAM Airlines		🧳	Network-wide	*Basic fare: No carry-on*	●
North America	Air Canada		🧳	Many routes		
	Alaska Group		🧳	Network-wide		
	American		🧳	Many routes		
	Delta		🧳	Many routes		
	Frontier		🧳	Network-wide	●	●
	JetBlue		🧳	Network-wide	*Basic fare: No carry-on*	●
	Southwest	🧳				
	Spirit		🧳	Network-wide	●	●
	United		🧳	Many routes	*Basic fare: No carry-on*	●

Figure 2.3. Summary of Baggage Policies and Revenue Methods
Source: Sorensen, 2023, p.5

Over a decade ago, most airlines traditionally applied the ‘all fares include baggage’ model. The add-on fee structure for baggage allowance is the latest development in the

global expedition for ancillary revenue. With the emergence of LCCs in the market, more and more traditional airlines started to adopt this new baggage policy model. It is well known in the market as branded fares, which allow consumers to choose from bundles of services with different pricing and baggage allowance. (Vinod & Moore, 2009, p.176). LCCs initiated this method, and it has become a highly productive tool for all types of airlines. Most LCCs start their basic package with a 0 kg baggage allowance, targeting passengers who travel without any bag and looking for the cheapest possible ticket fare. On the other hand, FSCs start their packages with more baggage allowance compared to the LCCs to differentiate their targeted segments.

According to Figure 2.3, it can be seen that European and American Airlines have already shifted to the 'fee or free determined by fare' model in their whole network. On the other hand, Airlines in the Middle East and Asia still follow the traditional 'all fares included baggage' policy more commonly. In Asian and Middle Eastern markets, there is an opportunity for airlines to grow more and shift to differentiated pricing models with different baggage allowances. (Sorensen, 2023, p.5) Since the trend is moving to more personalized and extended product offers, it can be said that airlines globally will start to apply add-on fee baggage policies on their whole network regardless of airline service type. Especially with the help of new technology, airlines offer more innovative baggage options for their customers and increase their revenue margin.

2.1.3.2. Priority Boarding

Most premium frequent flyer members and business class passengers have the right to board before others as part of their flying privileges. Priority boarding is a premium service that provides many benefits, especially while flying from busy airports. From security checkpoints to the boarding gate, passengers do not wait in long queues during their travels. With the increasing unbundling trends, many airlines and service providers started to offer priority boarding options in addition to travel tickets.

Also, many airlines have partnership agreements with different credit card companies which allow a certain level of cardholders to use priority boarding service in their trips. Most credit card companies apply a point system, or after a certain amount of spending,

cardholders become eligible for priority boarding. To get priority boarding, the current options can be summarized below (Dukovski, 2021);

- Purchase higher class tickets: Passengers who fly premium cabins, such as first and business class, usually have the right to board before the other customers. This priority usually includes having privileges from the entrance of the airport, security checkpoints, passport control, check-in counter, boarding, and baggage claim until the end of their journey.
- Earn higher status: Frequent flyers with an airline who have earned elite or premium status often benefit from boarding early. Some airlines allow their elite or premium cardholders to board before their other customers in return for their loyalty, regardless of their flying class.
- Get an eligible credit card: Some airline cobranded credit cards allow priority boarding for the primary cardholder and passengers traveling on their reservation. Especially for frequent flyers, this feature can help them to save a lot of time and money.
- Purchase priority boarding: Most airlines started to sell priority boarding services on specific flights and routes. These offers are only valid for a particular date, and purchased tickets are for one-time use only.

Some LCCs initiate creative approaches when it comes to combining different ancillaries. Ryanair offers extra carry-on baggage with a priority boarding option. Anyone may purchase priority boarding, which includes a large carry-on and a personal item. As shown Table 2.2, those passengers are allowed to carry one small bag and one piece of 10 Kg baggage with a fee at the time of booking. These passengers board first and fill the overheads with their large carry-ons. With this option, Ryanair offers priority boarding and a shorter pick-up time option for those who do not like to wait in the baggage claim. (Ryanair, 2018)

Table 2.2. Ryanair Priority and 2 Cabin Bags

	At time of booking	Added after booking
Priority	€/£ 6	€/£ 8
1 small carry on	Free	Free

Table 2.2. (cont.)

1 x 10 Kg bag- checked in	Free	Free
Non Priority	Free	Free
1 small carry on	Free	Free
1 x 10 Kg bag- checked in	€/£ 8	€/£ 10

Source: Ryanair, 2018

2.1.3.3. Seat Selection

Initially, most service carriers started to sell their extra legroom seats, also known as first-row (bassinet) and exit seats. The seat selection option extended to the whole cabin, allowing passengers to select and pay for their seats with an extra fee 48 hours before departure. Especially on peak dates, this option benefits those wishing to sit next to their family or people they are traveling with. Also, some passengers prefer to sit on a window or aisle seat for a comfortable journey. Mainly, front rows are selected by passengers because it allows them to enter or exit the airplane more easily. Airlines want to utilize this opportunity by charging extra amounts for those who would like to arrange their seating in advance.

It is essential to examine and understand the customer expectation perspective for this application because this service was previously provided by FSCs free of charge. According to research, it was stated that customer value, ticket fare, and flight length had positive influences on the willingness to pay for seat selection. Therefore, offering seat selection services to the corresponding passengers may be valuable to increase their revenue (Wang Z. et al., 2022). In terms of customer satisfaction perspective, it is crucial for airlines to design and market seat selection options very conveniently.

Airlines should follow some aviation and safety-related rules, such as children 15 years old and younger having to sit with their families. Alternatively, exit seats should be only occupied by passengers who can take responsibility in case of an emergency evacuation (IATA, 2023, p.170). Also, airlines still need help to implement seat assignment procedures effectively because of the handling of the operational management for different aircraft types. That is why a fully automated and maximized

seat ancillary model seems challenging to implement in current conditions due to the safety regulations in the sector.

Some airlines perform different seat selection applications, such as last-minute empty seat purchases, auctions for seat selection, and upgrades at the airport. In addition, some companies apply different pricing strategies for selecting window, middle, and aisle seats to charge more fees for more preferred seats. South Korean low-cost carrier Jeju Air can be given as an example of last-minute empty seat sales. They introduced a 'side seat' offer option, in which travelers purchase one or two seats next to their seats. Additional seats can be purchased one hour before departure at the airport by Jeju Air's passengers. As shown in Table 2.3, the airline offers passengers the option to buy a sleeping seat package: two extra side seats in addition to their main seat, a pillow, and a blanket are added as they now have a row of seats (Jeju Air, 2018).

Table 2.3. Jeju Air Extra Seat Offer

Route	1 Seat	2 Seats
Domestic	KRW 10.000 (USD 10)	KRW 20.000 (USD 20)
Japan, China (Shandong)	KRW 25.000 (USD 25)	KRW 50.000 (USD 50)
Hong Kong, Macau, Taiwan, China (Shandong excluded), Russia, Mongolia	KRW 30.000 (USD 30)	KRW 60.000 (USD 60)
Southeast Asia, Guam, Saipan)	KRW 50.000 (USD 50)	KRW 100.000 (USD 100)

Source: Jeju Air, 2018

2.1.3.4. Extra Leg-Room Seat Upgrade

In addition to seat selection, airlines offer first-row and exit seats with additional fees for extra legroom seat upgrades. The first row is usually offered to passengers traveling with infants because some aircraft provide bassinets for babies, and those bassinets can be kept in the empty area in the first row. Since these seats have more legroom and a place to put the bassinet, they are usually preferred by customers to have a more comfortable journey. Many passengers traveling with infants are willing to book those

seats, especially for long-haul flights. Besides families traveling with babies, the first row is trendy and preferred among other passengers because those seats are very close to the exit, providing a faster pass while boarding and leaving the aircraft. Also, bigger spaces in front of the seats make the journey more comfortable for travelers.

Exit seats, also known as emergency seats, which have extra legroom areas, are sold with an extra fee for those passengers who wish to have a more spacious area. Exit row seats used to remain unallocated until the last 24 hours due to the aviation requirement and rules for emergency seat procedures. That is why some airlines are open to bidding options for exit seat upgrades. There are some challenges for airlines in terms of extra legroom seat sales. For example, due to safety and emergency requirements, passengers' mobility sitting on the exit seat is essential (Prosperi, 2019). Also, the prepaid amount of the seat cannot be transferred to the new itinerary for some airlines in case of reissue and rebooking. Thus, this situation may cause customer dissatisfaction among the passengers.

2.1.3.5. Lounge Access

The demand for airport lounges increased over the years. It was preferred mainly by premium-class travelers who fly business or first classes. Airports started to offer lounge access for all passengers allowing them to enter with an additional fee. Although airport lounges were traditionally used exclusively by business travelers, the current trends suggest that this tendency may change over the years.

According to Airport Dimensions' latest report, 57% of frequent flyers have visited an airport lounge at some point. Also, the research revealed that as the demand for airport lounges is growing vastly, there is a vast market opportunity for retailers and airlines. According to the survey, 25% of airport lounges visitors used the lounge because they booked business or first-class tickets. In addition, 19% of passengers accessed lounges with their loyalty memberships, such as priority passes. At the same time, 19% visited lounges as part of their membership with certain airlines and credit card companies. Meanwhile, 18% of passengers surveyed said they pay directly to access the spaces (Cole, 2023).

Especially for those passengers who have long hours to wait at the airport during their travels, they are willing to pay for a lounge access fee rather than spending almost the same amount due to the high prices at the airport. Some lounges offer sleeping areas and showers, making some customers spend their long transit time in the lounges rather than in airport hotels. There might be concern about the quality of lounges, especially for those traveling business and first class. Some airlines differentiate their lounges, only available for business class travelers and elite status holder passengers.

2.1.3.6. In-Flight Food and Beverage

One of the other growing ancillary areas is onboard food and beverage sales. Traditionally, all airlines provide different food selections during their travel for those who order non-allergic, child, halal, or vegetarian foods. Passengers add their meal choice through the airline website, call center, and sales office. This is a common application for all-inclusive meal selection FSCs. On the other hand, LCCs sell food and beverages separately on board with an additional fee. Also, food sizes and types change according to the duration of the flight. Airlines tend to offer sandwiches and small snacks during short-haul and domestic flights due to the limited time on board.
According to a study that El Gamal does, food attributes were significantly associated with passengers' satisfaction levels. Moreover, onboard meal taste, suitability for all plates, portion size, arrangement, cleanliness, texture, temperature, variety, and overall quality significantly impacted passengers' satisfaction. The results suggested that nine onboard food attributes (i.e., taste, suitability for all plates, portion size, tray arrangement, cleanliness, texture, temperature, variety, and overall quality) made unique and statistically significant contributions to predicting passengers' satisfaction (El Gamal, 2015, p. 19). Therefore, airlines that want to expand their onboard catering revenue should focus on the variability of options and quality.

With the help of technology, airlines try to implement more online-based solutions and pre-order options for food and drink during their travels. Today, only some airlines allow passengers to order food or snacks on demand through an entertainment system. Passengers should be offered various options to proceed dynamically with food and drink orders. Especially for business passengers, some airlines provide menus with iPad or scanning QR codes to increase customer satisfaction.

Furthermore, younger segments are more open to innovations. According to the Airport Dimensions report, 68% of Gen Z travelers believe being able to pre-order and collect food via a digital app would improve their airport visit, compared to just 25% of Boomers and older travelers. 78% of travelers look to dine at the airport or on board, but only 60% say they would consider using an app to order drinks or meals. Technology-enabled markets tend to perform better with the younger generation's user habits (Connecta, 2021, pp. 10-11).

2.1.3.7. In-Flight Entertainment

Many airlines realized the potential of in-flight entertainment (IFE) systems as part of improving overall product quality and the passenger's comfort level. The quality and content of the IFE systems are highly associated with overall customer satisfaction levels. In the LCC market, most aircraft do not have an IFE system due to cost-cutting reasons. Some LCCs distribute iPad for those who wish to pay extra fees during travel. Especially during long-haul flights, passengers are confined to limited areas where they can actively use the screens before them for longer durations.

According to Skytrax, Emirates holds the first position for the world's best IFE system (Skytrax, 2022). Emirates Airlines, known for its high-class onboard service, was one of the first airlines to introduce a personal seat-back entertainment system on the aircraft. Emirates' entertainment suite includes complimentary Wi-Fi and offers entertainment options such as movies, TV, music, radio, and podcasts, as well as educative and informative options such as the latest news, real-time sporting events, and information. The system also has onboard opportunities for learning foreign languages and includes LinkedIn Learning courses (Hawk, 2018, p.16).

As seen from the IFE system comparison chart, standard entertainment services such as movies, TV, games, and music are provided by many airlines. However, additional features such as live sports, video streaming, shopping, food orders, etc., differ from airline to airline (Hawk, 2018, pp.17-18). Table 2.4 summarizes the services provided on board the largest airlines in North America, the Middle East, Asia, and Europe.

Table 2.4. In-Flight Entertainment Services Comparison Chart

Feature	Delta Airlines	Emirates	China Southern	Lufthansa
Free Wi-Fi	Available for purchase	+	Limited Routes, classes, devices	Available for purchase
Phone Calls	Texting, no calls	+	No use of mobile Phones	+
Movies	+	+	+	+
Music	+	+	+	+
games	+	+	+	+
Live TV	On select Flights	Regular TV	Regular TV Programs	+
Live Sports	-	+	-	+
Live News	+	+	-	+
Video Streaming e.g. Netflix	+	-	-	-
Podcasts	+	+	-	-
Audio books	-	-	-	+
Educational courses	-	+	-	-
Shopping	-	+	limited	+
Food Orders	+	-	-	+
PED app available	+	-	-	+

Source: Hawk, 2018, p.17-18

2.1.3.8. Wi-Fi

Airlines are becoming more creative in inventing new approaches for promoting retail products and services onboard. With the increasing trend of ancillaries, new ways of selling products are being launched and announced by airlines. Especially internet connectivity enables airlines to move beyond providing just in-flight entertainment and generate more ancillary revenues. Rather than generating revenue from selling Wi-fi connectivity, airlines are turning to third-party merchants with last-minute inventory (hotels and restaurants, duty-free retailers, sale of event tickets) and developing a retail environment as part of their inflight internet platforms (Kollau, 2017).

The global airline industry is on the edge of a connectivity revolution. Around 3.8 billion passengers fly annually, but only around 25% of planes in the air have onboard broadband features. The availability and reliability of connectivity influence the level of engagement with passengers' online personal and work domains. The inflight wireless connection allows individuals to continue their engagement with these domains inflight. It is estimated that the share of E-commerce: destination shopping will be increased to 40% in the future with the biggest growth opportunity, as shown in table 2.4. This means airlines should invest in broadband infrastructure systems for their planes to increase ancillary revenue utilization (Grous, 2018, pp. 1-11).

Table 2.5. Broadband-Enabled Ancillary Revenue by Service and as a Proportion of Total Revenue

	2018		2028		2035	
Ancillary Revenue	Revenue	% of total	Revenue	% of total	Revenue	% of total
Advertising	$48,733,691	5.98%	$5,540,353,422	8.32%	$10,706,212,518	8.18%
Broadband Access Revenue	$3,290,566,450	66.50%	$36,254,590,888	54.47%	$63,675,993,215	48.65%
Streaming and Devices	$78,682,487	3.98%	$1,724,989,166	2.59%	$3,250,234,177	2.48%
E-Commerce: Destination Shopping	$442,883,408	23.55%	$23,040,989,877	34.62%	$53,245,035,926	40.68%
Total Market Revenue	**$3,860,866,035**		**$66,560,923,353**		**$130,877,475,836**	
Airline Proportion	**$925,518,156**		**$15,901,909,247**		**$30,082,080,853**	

Source: Grous, 2018, p.11

According to the annual book of Airasia, duty-free continues to demonstrate its potential and significance in a guest's journey, with revenue growing 40% year-on-year, the largest growth among their ancillary offerings. They claimed this was partly boosted by their pre-book duty-free platform, which offers luxurious goods and curated local selections. Purchases can be picked up by flight or airport (AirAsia et al., 2019, p.105). Therefore, it is very important to maintain the connectivity of the passengers during flights. Channeling online platforms with onboard sales is the future for the ancillaries.

2.1.3.9. Car Rental

Car rental is one of the top-performing commission-based ancillaries for airlines, hotel bookings, and travel insurance sales. Airlines now have many choices for different car rental services on their websites or mobile applications. Multi-supplier methods provide more choices for consumers. Most airlines sign partnership agreements with more than one company. At the same time, exclusive relationships limit brand choice to a single supplier. For example, Hertz is the sole booking partner for Aer Lingus, Air France, and Ryanair (Sorensen, 2011).

The sale of car rental has a rational progression for airlines. Revenue from commission-based ancillaries is obtained from selling another company's products. Airlines derived revenue from the products with a specific commission percentage without bearing the cost of operation. Airlines such as Ryanair have been offering car rentals since the 1990s. It was a natural step to combine the offer of flights and car rental to their customers, thus giving the carrier a greater revenue share without bearing the cost of the operation. For Example, Ryanair earned approximately €32 million from its agreement with Hertz in 2009, thanks to a commission rate of 12%–18% (Shaw et al., 2021, p.4).

2.1.3.10. Travel Insurance

The alliance between airlines and insurance providers is working together to stimulate the travel industry. Many airlines started to offer travel insurance via their transaction channels in the last decade. In the post-pandemic era, insurance became very important for the passengers. Market research consultancy Finaccord estimates that the annual revenue from airlines-travel insurance providers' partnership may range from $1.2 to 1.5 billion in premiums. With the gradual counterweight of the pandemic, it is a very good time to review and expand this existing partnership into designing a more compelling travel insurance offering (Web-Setup, 2021).

Other than classic travel insurance policies, insurance companies create more innovative product offers for the travel industry. For Example, SmartLynx offers delayed baggage protection service through managed booking & check-in in case of

baggage delays. It allows passengers to secure luggage or sports equipment for 5 EUR, and customers get 1000 EUR compensation to their bank account if their baggage is delayed for more than 96 hours after their flight arrives. This service is in addition to any payouts by the airline or any other insurance company (SmartLynx, 2020).

2.1.3.11. Hotel

Another important third-party product is hotel bookings. Hotel agreements are very common complementary offers that most airlines provide. Depending on the market conditions, airlines tend to sign contracts with more than one company for the same service and offer their customers special discount rates with different options. Customers can book such services online with the airline website, mobile application, and onboard purchase options. Lately, most airlines started offering holiday packages that include stay and transportation.

Many airlines have offers in their leisure travel product or frequent flyer program, which could be used to develop Finnair Holidays and Finnair Plus (Leppäjärvi, 2018, p.47). According to one study examining the strengths and weaknesses of leisure travel products, airlines tend to offer different options in their holiday packages. While one product gave extraordinary value to top-tier members, one had outstanding offers and discounts. Finnair Holidays, for example, have a great point offer for frequent flyers. Still, it could make the product even more attractive and special for the top tier members and improve the system so that all the passengers in the booking could receive the holiday points.

CHAPTER III

DIFFERENT ANCILLARY APPLICATIONS IN TERMS OF CUSTOMERS' PURCHASE TENDENCY

3.1. Willingness to Pay

Willingness to pay is defined as 'the maximum price a customer is willing to pay for a product or service.' It is typically represented by a dollar figure or, in some cases, a price range (Stobierski, 2020). Price is one of the most important features to passengers while making purchase decisions. Thus, getting the right price is important for airlines to capture passengers' preferences regarding ancillary products and services. Willingness to pay for several ancillary services differs between the low-cost carrier and full-service carrier passengers, short-haul and long-haul flights, and overall journey purpose (Warnock-Smith et al., 2017).

Knowing the customer's willingness to pay for the company's products and services may help the airlines follow a more precise pricing strategy. This will contribute to the company's overall strategic planning. Offering the correct price in the correct place is vital to increase profitability. Detailed studies and analyses about customer preferences will help airlines better understand customer needs. Minor variations can have bigger effects on customers' purchase behavior (Hahsler et al., 2006).

This study analyzes the customers' willingness to buy ancillary products and services. It is mainly divided into two categories: flight-related attributes (carrier type, duration of flight, and cabin class) and customer-related features (income, travel purpose, and travel frequency). Each attribute and its interrelations are examined and analyzed in detail to understand customer purchase behavior and willingness to pay levels for airline ancillaries.

3.2. The Effects of Travel Attributes on Purchase Behavior

3.2.1. Carrier Type

Ancillary revenue types show changes depending on the airline business model (LCC or FSC). For LCCs, which initiated ancillaries and unbundling concepts, ancillary offers include most of the journey from ticket purchase until leaving the aircraft. However, once we look at the total revenue as a single category, these airlines are behind traditional airlines. Traditional airlines represent the largest traffic volume, which is why revenue due to their volume is larger than other carriers since they have adapted ancillary revenue as a crucial source of support for many years. Table 3.1 displays ancillary revenue by carrier type in terms of frequent flyer & commission-based revenue and a la carte sales (Cartrawler, 2020, p.3).

Likewise, it can be seen that from Table 3.1, the share of frequent flyers and commission-based revenue of traditional airlines is higher than the LCCs. On the other hand, the percentage of a la carte sales for LCCs is greater than the FSCs. Traditional airlines differentiate their ancillary revenue strategies by combining loyalty programs and third-party bookings. LCCs focus more on unbundling and a la carte sales, which have almost 94% of their ancillary revenue (Cartrawler, 2020, p.3).

Table 3.1. CarTrawler Worldwide Estimate of Ancillary Revenue by Carrier Type

Airline Category	Total Ancillary Revenue	Frequent Flyer & Commission Based	Rate of FF& Commission Based (%)	A la Carte	Rate of A la Carte (%)
Traditional Airlines	$26.3	$7.4	28%	$18.9	72%
Low-Cost Airlines	$3.4	$0.2	6%	$3.2	94%
Other	$28.5	$12.1	42%	$16.4	58%
Total Market	**$58.2**	**$19.7**	**34%**	**$38.5**	**66%**

Source: Cartrawler, 2020, p.3

In Figure 3.1, when we compare EasyJet (LCC carrier) to British Airways (Legacy-Full service Carrier), we can see that ancillary revenue sources differ depending on business models. EasyJet unbundles their fare into many categories, and their baggage sales are the highest among other ancillary revenues. Almost half (47%) of its revenue comes from baggage fees. However, British Airways' biggest sales ancillary consist of FFP card-related sales. British Airways gets over half (54%) of its revenues from its FFP-related sales (Cowen, 2017). This shows clearly that airlines position their ancillary products in line with their business model.

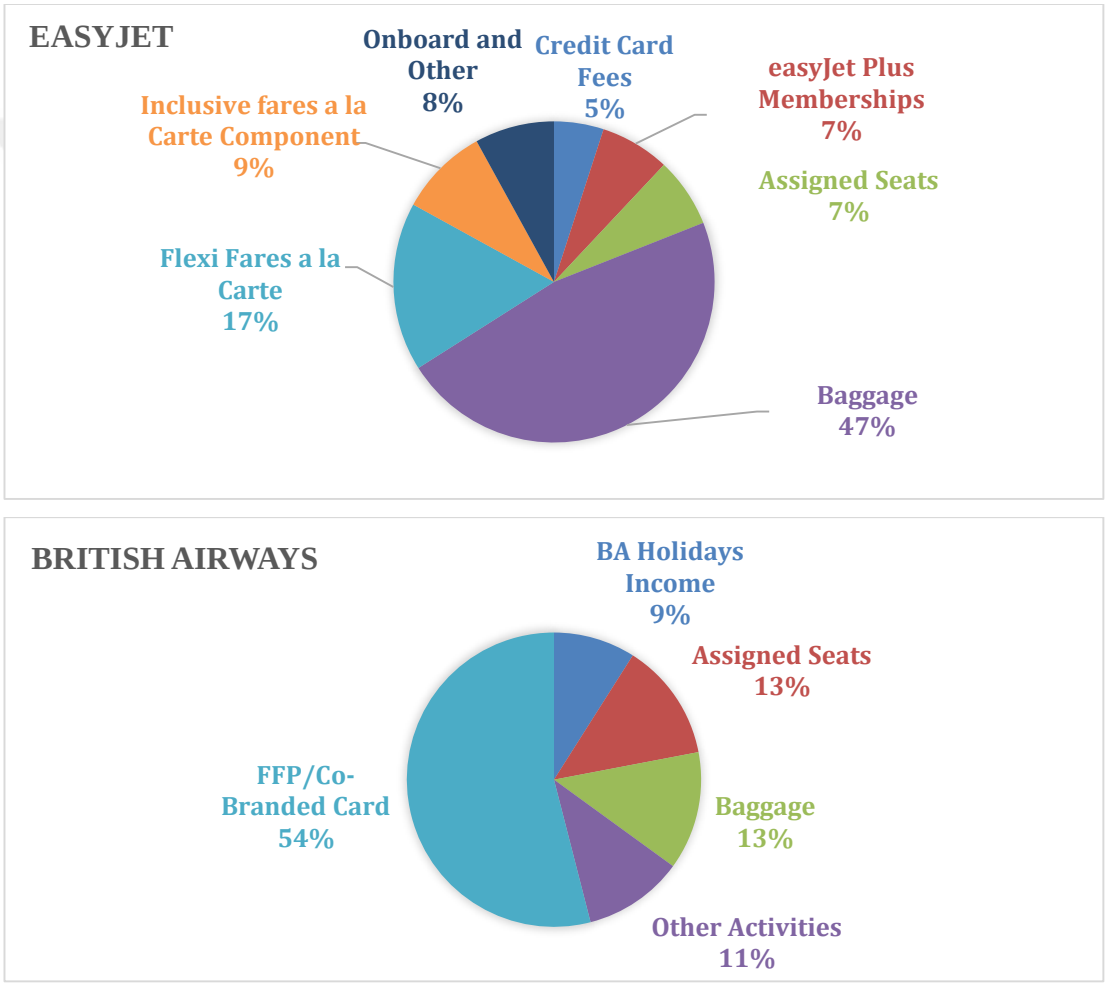

Figure 3.1. Ancillary Revenue Sources Comparison
Source: Cowen, 2017

3.2.1.1. Full-Service Carrier Ancillaries

Full-service airlines focus on customer satisfaction perspective more than other carrier types. Once they implement an ancillary strategy, they emphasize customer expectations due to the importance of their current loyalty programs. FSCs often engage with the passengers before, during, and after the journey. Most of the full-service carriers started charging extra fees for the additional services by setting an example of LCC models. The results of such applications are because those services used to be provided free before by these airlines. However, the effects and results of these applications are still unknown.

A study has been conducted by (Çetiner et al., 2019, pp. 135-155) to research the relationship between ancillary revenue types and different airline models regarding acceptable levels of ancillaries from both customer and airline managers' perspectives. At the end of the survey, they found significant differences in the ancillary preferences according to the airline model for both customer expectations and managers' production points of view. For FSCs, the participants mostly prefer frequent flyer program-related products, while they choose a la carte services for low-cost and hybrid carriers. According to the result of the study, passengers demand more ancillary services FSCs contrary to what is assumed generally. Although some studies support customer reaction to increasing ancillary trends, the full-service should analyze customer expectations well and add more value to the service rather than charging extra fare for an existing product.

3.2.1.2. Low-Cost Carrier Ancillaries

LCCs focus on more cost reduction strategies rather than customer satisfaction compared to FSCs. It is well known by passengers and industry that these LCCs provide benefits to the aviation industry by providing reasonable fares. It is usually recommended that project-based outsourcing models and cost differentiation strategies reduce unnecessary operating costs of companies while adopting the LCC model (Sarker et al., 2012, pp. 162-171). With the lower ticket prices offered by LCCs, ancillary revenue plays a crucial role, compensating for low revenue returns.

According to the result of one study conducted on Pegasus Airlines in Turkey, it was found that ancillary revenue hurts overall financial performance. The study results imply that Pegasus Airlines focuses on the occupancy rate with its low ticket fare policy. Even though the loss is expected to be compensated with ancillary revenue sales, overall profitability cannot be achieved at the desired level because of the high cost per passenger. (RASK revenue per seat was 3.50 euros, while CASK expense was 3.70 euros.) 0.20 Euro loss per seat as the increase in load factor could not provide the desired increase in ancillary incomes. On the other hand, some LCC models might be very challenging due to the high initial operating cost structure level. It is crucial to position the ticket fare in line with the breakeven point (Akpınar, 2019, p.2633).

3.2.2. Duration of Flight

In the aviation sector, flights are categorized in terms of their lengths as short haul (30 min to 3 hours), medium haul (3 to 6 hours), and long haul (more than 6 hours), as shown in Table 3.2. The nature of the flights and operational styles differ for each category (Moffitt, 2022). For example, catering is a differentiated ancillary that usually serves bigger portions or as meals during medium and long-haul flights.

Table 3.2. Examples of Short-Haul, Medium-Haul, Long-Haul, and Ultra-Long-Haul Flights

Definition	Duration	Route	Airline	Aircraft
Short-haul	Up to 3 hours	Sydney - Adelaide	Virgin Australia	Boeing 737
Medium-haul	3-6 hours	Perth - Singapore	Singapore Airlines	Boeing 787-10
Long-haul	Over 6 hours	Melbourne - Tokyo	Qantas	Airbus A330

Source: Moffitt, 2022

Passengers' behavior and purchase tendencies vary significantly with the flight length. Thus, the flight length may show differences regarding the purchase or purchase motivation of an airline's ancillary products and services. On the other hand, most airlines prefer to serve sandwiches or easy snacks for short-haul flights due to the limited turn-over time.

3.2.2.1. Short Haul

The touch points between customers and airlines could be improved during short-haul travel. Short-haul travel mostly consists of domestic routes within a specific country or region. (Khillar, 2021) It is usually an alternative car, train, or bus travel option. Especially the competition is very high for those markets due to the many available transportation options. Since passengers are more price sensitive in this market, airlines tend to lower the service options (catering, IFE, Wi-Fi, etc.) to cut the cost of operation.

3.2.2.2. Medium Haul

On the other hand, Medium Haul Flights remain between short-haul and long-haul segments in terms of product and service differentiation. Due to the nature of medium-haul flights, which are not long as far as flight time, most routes are flown on narrow-body airplanes rather than wide-body aircraft. (Khillar, 2021) Most medium-haul flight offers usually have one meal or snack service, possibly one of each.

3.2.2.3. Long Haul

Given that the total trip duration for long-haul travelers is higher than the short or medium-haul travelers, passengers spend longer on air in small and very limited areas. From check-in until getting off the plane, some passengers spend almost a day or more, depending on the route. Thus, it is estimated that the total expenditure for the entire trip is expected to be higher for long-haul travelers.

Long-haul travelers are more likely to travel alone or with a spouse, while short-haul travelers are more likely to travel with family, relatives or friends, and business partners. Regarding travel expenditures, each customer type needs to be examined closely and in detail (McKercher, 2008).

3.2.3. Cabin Class

Generally, there are four types of cabin class, economy, premium economy, business, and first class. Economy class is the lowest flight class or most basic class of airlines.

This class is mainly designed for budget travelers. These seats are generally narrower than other classes and have affordable options (Budgetair, 2019). On the other hand, some airlines offer premium economy classes, which usually offer slightly wider seats and more legroom than economy classes.

A business class is usually designed for business travelers between the most basic and first classes. Airlines increase the quality in this class and differentiate their service and products to appeal to different types of customers. Passengers that fly first class tend to get the most luxurious travel experience compared to all other classes. In the first-class cabin, passengers are usually offered separate private areas to sleep, study and eat. Since the passengers are paying a high amount for the tickets, they are offered the best quality food and beverages, IFE and Wi-Fi, etc. According to Skytrax, Singapore Airlines is chosen as the best first-class airline globally (Skytrax, 2022). With the cabin service differences for both classes, the willingness to pay for ancillary products and services should be analyzed separately (Chiambaretto, 2021).

Since the level of service and customer expectations are directly related to the cabin class choice of passengers, WTP for ancillaries should be differentiated according to the cabin class. For example, it is wise for business and first-class travelers to focus on more luxury and high-quality products since they expect them to be higher. Especially spending habits of each class traveler are different from each other.

3.3. The Effect of Customer Choice and Attributes on Purchase Behavior

3.3.1. Income

It is important to examine the relationship between WTP and the income level of customers. Income greatly affects the passenger's overall willingness to pay levels. A global study by travel technology provider Sabre in October 2016, based on a pre-defined basket of extras such as seats, bags, and food, revealed that passengers would be willing to spend up to $99 to personalize their experience. Sabre surveyed travelers from 20 countries about what they would spend and why. The results show that 80 percent of travelers purchased air extras on their last trip, spending an average of $62

and that they would spend up to $99 more to personalize their trip if it improved their travel experience (Sabre, 2016).

The survey also found differences between what passengers from different regions would spend on add-ons (Table 3.3). In Asia &Pacific, it can be seen that the gap between current spending and WTP for future ancillary offers is lower than in the other regions. On the other hand, Latin America has the lowest market saturation in terms of WTP for ancillaries. It is possible to say that there is an opportunity for airlines to promote more ancillary services in this region (Škurla et al., 2019).

Table 3.3. Regional Differences in Ancillary Purchases

Region	Current Spend ($)	Willing to Spend ($)
Africa	95	144
Latin America	55	114
Middle East	58	91
North America	55	88
Europe	55	82
Asia & Pacific	63	76

Source: Škurla Babić, Ozmec-Ban, and Bajić, 2019

3.3.2. Travel Purpose

Generally, the basic form of journey purpose is known as business and leisure travel. Business travel usually aims to attend meetings, conferences, training, etc. and can be divided into independent and corporate business travelers. Corporate travelers are employed by a medium or large company that can put the price of the tickets and other business travel costs onto the company's expense account. These passengers value high product standards. (Shaw, 2011, p.28).

Leisure travel can be divided into holiday and Visiting-Friends-and-Relatives (VFR) travel. Holidays can be further sub-segmented into traditional vacations, short breaks, travel to cultural or sports events, etc. Journey purpose continues to be used for representing the duration of the trip, booking pattern, travel frequency, and demand

which are important considerations when an airline wants to create a marketing program or determine marketing targets (Klislinar & Widjaja, 2020).

3.3.3. Travel Frequency

Travel frequency implies how many trips on average passengers take in a year. Figure 3.2 displays data on travel frequency for private purposes, showing results of the Statista Global Consumer Survey conducted in the United States in 2022. 30% of respondents answered, "How often have you traveled for private purposes in the past 12 months?" with "Not at all.” On the other hand, 5% of the respondents stated that they travel ten times or more in one year (Kunst, 2022).

The number of trips in any given year has increased in recent decades in Europe, but not due to an increase in the percentage of people traveling. Rather they cite increased travel frequency and more intensive demand among existing customers (Losada et al., 2016, p.3). Therefore, travel frequency is important for customers’ lifetime value to the airlines since it is more costly to find a new customer than retain an existing one (Johnson & Myers, 2022).

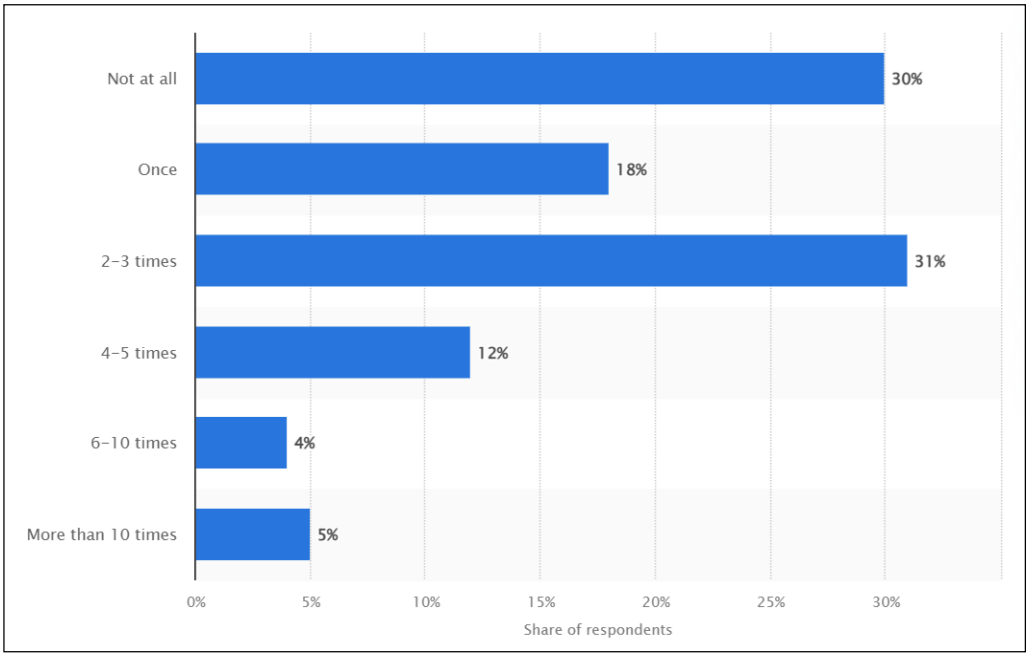

Figure 3.2. Travel Frequency for Private Purposes in the U.S. in 2022
Source: Kunst, 2022

3.4. Relevant Literature Ancillary Revenue and Customer's Acceptance Level

A study has been conducted to investigate whether the purpose of the journey (business or leisure), the duration of the flight, the cabin class, and the type of journey (domestic and international) can have an effect on the WTP for additional services provided by Middle East Airlines (MEA). According to the study results, there is no visible relationship between the purpose of the travel and the amount of money people are ready to spend on ancillaries (Kassir, and Ashaal, 2021, p.115). However, it was revealed that business travelers are more likely to pay for additional luggage and priority boarding, especially when taking longer trips.

In addition above, third-party offers such as car rentals and hotels are very important and preferred by business travelers. Furthermore, there is a connection between the class of the aircraft and the level of independence in spending money on things like lounge access. Also, there is a strong connection between the flight's duration and a passenger's desire to spend more for upgrades while paying for hotel and vehicle rental bundles. For the last part, they examined that there is no clear relationship between the type of flight, such as local or beyond, and the passengers' desire to pay for additional or extra features and services (Kassir, and Ashaal, 2021, p.126).

Another similar type of study has been conducted for Garuda Indonesia Airlines to test if a customer's type of journey, the purpose of the journey, length of flight, and type of flight class have an impact on the WTP of ancillary revenues (Klislinar, and Widjaja, 2020, p.1). Unlike the above study, they found a significant influence between journey purpose and WTP for excess baggage, seat selection, and commission-based items (car rental and hotel package). Therefore they accepted the hypothesis that journey purpose impacts willingness to pay for excess baggage, seat selection, and car hotel and hotel package.

Additionally, they found no significant impact for economy and business class passengers in willingness to pay for the ancillary products and services except lounge access. The length of the flights and willingness to pay for an upgrade for business/first class and car rental and hotel package are highly correlated. Lastly, it was also found that there is no significant influence between types of flight, whether passengers fly

domestic or international routes, and willingness to pay for ancillary products and services (Klislinar, and Widjaja, 2020, p.3-18).

Other researchers focus on a similar subject to examine overall WTP for ancillaries. According to the results of research done by O'Connell & Warnock-Smith, it was revealed that passengers' willingness to pay for ancillary services is directly related to their perception of the importance of these services. The work found that airport car parking and checked baggage were the most acceptable services for passengers. Also, acceptance levels of FSC travelers were almost invariably less than for LCC travelers for commission-based and unbundled services. It is suggested for FSCs focus on more value-added products and associate their offers with their frequent flyer programs (O'Connell & Warnock-Smith, 2013, p.20).

CHAPTER IV

A STUDY IN CUSTOMERS' WILLINGNESS TO PAY FOR ANCILLARIES IN TERMS OF TRAVEL AND CUSTOMER ATTRIBUTES

4.1. Model and Scope of Research

This study was implemented to analyze general customer preferences and the willingness to pay for ancillary services offered by airlines in addition to travel tickets. It is analyzed how customer choices and travel attributes affect willingness to pay for ancillaries in terms of carrier type, flight duration, cabin class, annual income of passengers, travel purpose, and travel frequency. An online and in-person survey was applied to 281 people who traveled from Bahrain at least once and are 18 years and above. Data were collected with both online and face-to-face surveys with descriptive research methods. Online surveys are the most popular and efficient way to collect data. On the other hand, the in-person survey provides deeper interaction with the participants. (SurveyMonkey, 2022). It is aimed to reach a more diverse population and the most accurate results by combining both methods. Accordingly, the model of the research is presented as follows (Figure 4.1);

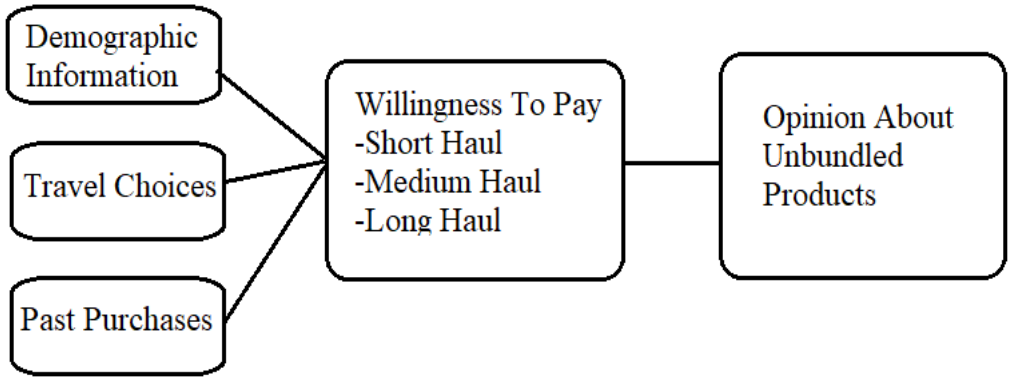

Figure 4.1. Model of Survey

This study uses the conclusive research design to test certain hypotheses and see the relationship between variables. The same research model was used in a previous study entitled "An Analysis of Ongoing Trends in Airline Ancillary Revenues" (Warnock et al., 2017). In addition, other than carrier type, duration of the flight, and cabin class, the relation between WTP and passengers' annual income, travel purpose, and travel frequency is studied. (Figure 4.2). During the implementation of research, descriptive research is used with a cross-sectional study where data is collected from the population only once (N.Ihudiebube-Splendor, and C.Chikeme, 2020).

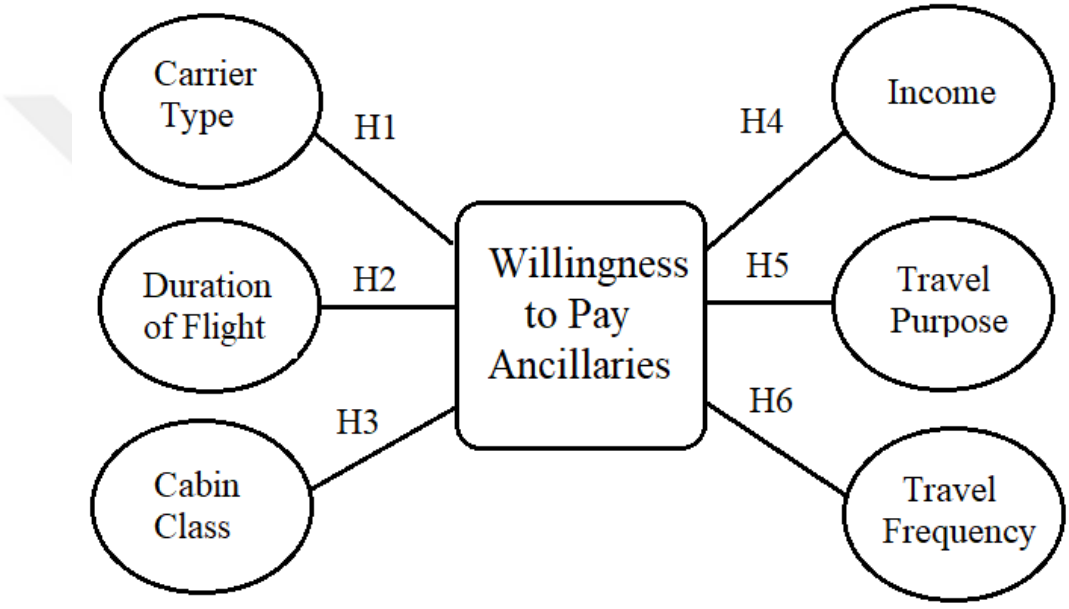

Figure 4.2. Adapted Research Model of "Analysis of Ongoing Trends in Airline Ancillary Revenues"

Source: Warnock-Smith, O'Connell, and Maleki, 2017

In total, 12 hypotheses (six main and six sub-categories) are defined below:

H1: Carrier type impacts WTP for ancillary products and services.

H1a: Low-cost carrier passengers are more willing to pay ancillaries because of the customer's habits and perspective toward ancillaries.

H1b: Full-service carrier passengers are less willing to pay for unbundled products since they already pay the higher ticket prices.

H2: The duration of flight has an impact on WTP for ancillary products and services.

H2a: Short and medium-haul travelers are less willing to pay for additional services than long-haul passengers because of the time spent in the airport and onboard.
H3: Cabin Class choice has an impact on WTP for ancillary products and services
H3a: Business Class travelers have higher WTP for ancillaries
H3b: Economy class travelers have lower WTP for ancillaries
H4: Annual income of the passengers has an impact on WTP for ancillary products and services
H5: The purpose of travel has an impact on WTP for ancillary products and services
H6: Travel frequency of passengers has an impact on WTP for ancillary products and services
H6a: Frequent flyer passengers are more WTP for additional services because of the amount of time spent during traveling.

4.2. Data Collection Method and Tools

The questionnaire survey method was used as the data collection method in the study. In this study, primary data was obtained by conducting an online and offline survey of respondents. In the first part of the survey, demographic profiles, travel choices, and past purchases are asked of respondents. In the second part of the questionnaire, participants are asked about their willingness to pay for ancillaries in their future travels for short, medium, and long-haul flights. In this section, participants' preference levels for each question are measured according to the 5-point likely scale as "very likely," "likely," "neutral," "unlikely," and "very unlikely." Lastly, participants' opinions about unbundled products are asked on a 5-point scale "strongly agree," "agree," "neutral," "disagree," and "strongly disagree").

4.3. Statistical Methods Used in the Study

The result of the study was analyzed in the SPSS 25.0 program. In the research, demographic statistics of the participants (age, gender, education, employment, annual income, residency, travel frequency, carrier type, duration of flight, travel purpose, cabin class, sales channel, and frequent flyer membership) are examined. Also, correlation analysis, reliability analysis, factor analysis, regression, and chi-square analysis were done to test the relation between the attributes of travel selection and WTP for ancillaries.

4.4. Demographic Data

The profile section of respondents in the questionnaire includes age, gender, education, employment, annual income, residency, travel frequency, carrier type, duration of the flight, travel purpose, cabin class, sales channel, and frequent flyer membership. Out of 281 respondents, almost half of the population (42%) was between 26-35 years old, and 26% of the respondents were 36-45 years old. Also, 49% were women, and 51% were men. Almost half of the population (49%) studied bachelor's degree. The biggest employment demography was 55% employed.

For household income, 23% of the respondents have an income of 10,001 - 20,000 BHD, and 22% of the population has 20,001 - 25,000 BHD. The majority of the respondents (80%) consist of Middle East residents. Of 281 respondents, 46% said they travel more than once a year, and 38% travel once yearly. Also, 41% of the attendees prefer FSCs during their travels, while 27% fly with LCCs. Around 33% stated that they prefer both FSCs and LCCs. The majority of the population prefers medium-haul (65%), leisure (81%), and economy class (79%).

Lastly, around 46% of the participants said they purchased their tickets through the airline website/mobile application. Meanwhile, 20 % of the population prefers online travel agencies while purchasing their tickets. Also, 74% of the population is a frequent flyer program member, while the remaining 26% stated that they do not have any airline frequent flyer program membership. The frequency numbers and percentage rates of all demographic data can be reached in Table 4.1 below.

Table 4.1. Demographic Distribution of Participants

	Attribution	**Frequency**	**Rate (%)**
Age	18-25 years old	26	9%
	26-35 years old	118	42%
	36-45 years old	74	26%
	46-65 years old	51	18%
	65+ years old	12	4%

Table 4.1. (cont.)

Gender	Female	137	49%
	Male	144	51%
Education	Below Than High School	18	6%
	High School	65	23%
	Bachelor's Degree	139	49%
	Master's Degree	53	19%
	Doctorate Degree and higher	6	2%
Employment	Student	27	10%
	Employed	154	55%
	Self-employed	45	16%
	Retired	13	5%
	Not working currently	42	15%
Annual Income	Less than 4,000 BHD	22	8%
	4,000 - 10,000 BHD	33	12%
	10,001 - 20,000 BHD	64	23%
	20,001 - 25,000 BHD	63	22%
	25,001 - 30,000 BHD	38	14%
	30,001 - 35,000 BHD	26	9%
	35,001 - 75,000 BHD	15	5%
	75,001 - 130,000 BHD	15	5%
	130,001 - 200,000 BHD	1	0%
	More than 200,000 BHD	4	1%
Residency	Middle East	224	80%
	Europe	29	10%
	Africa	7	2%
	Asia	17	6%
	America	2	1%
	Australia & New Zealand	2	1%
Travel Frequency	Once a week or more	9	3%
	Once a month	29	10%
	More than once a year	128	46%
	Once a year	106	38%
	Never	9	3%

Table 4.1. (cont.)

Carrier Type	Low-cost airlines (flyDubai, Ryanair, Pegasus, Air Arabia, etc.)	75	27%
	Full-service carriers (Emirates, Turkish Airlines, British Airways, etc.)	114	41%
	Both	92	33%
Duration of Flight	Long Haul (6 Hours and more)	31	11%
	Medium Haul (3 -6 Hours)	183	65%
	Short haul (30 min to 3 Hours)	67	24%
Travel Purpose	Leisure	229	81%
	Business	24	9%
	Other (VFR, Education, Religion, etc.)	28	10%
Cabin Class	Economy Class	222	79%
	Premium Economy Class	30	11%
	Business Class	28	10%
	First Class	1	0%
Sales Channel	Airline sales offices	48	17%
	Airline website/mobile application	130	46%
	Call center	11	4%
	Online travel agencies	56	20%
	Traditional travel agencies	36	13%
Frequent Flyer	Yes	208	74%
	No	73	26%

4.5. Results and Analyses

4.5.1. Past Purchase Analysis

Participants were asked which ancillary products and services they had purchased previously. Figure 4.3 shows that the most frequently purchased ancillaries are seat selection, hotel, and additional baggage. The least popular categories are extra legroom, Wi-Fi, and in-flight entertainment systems.

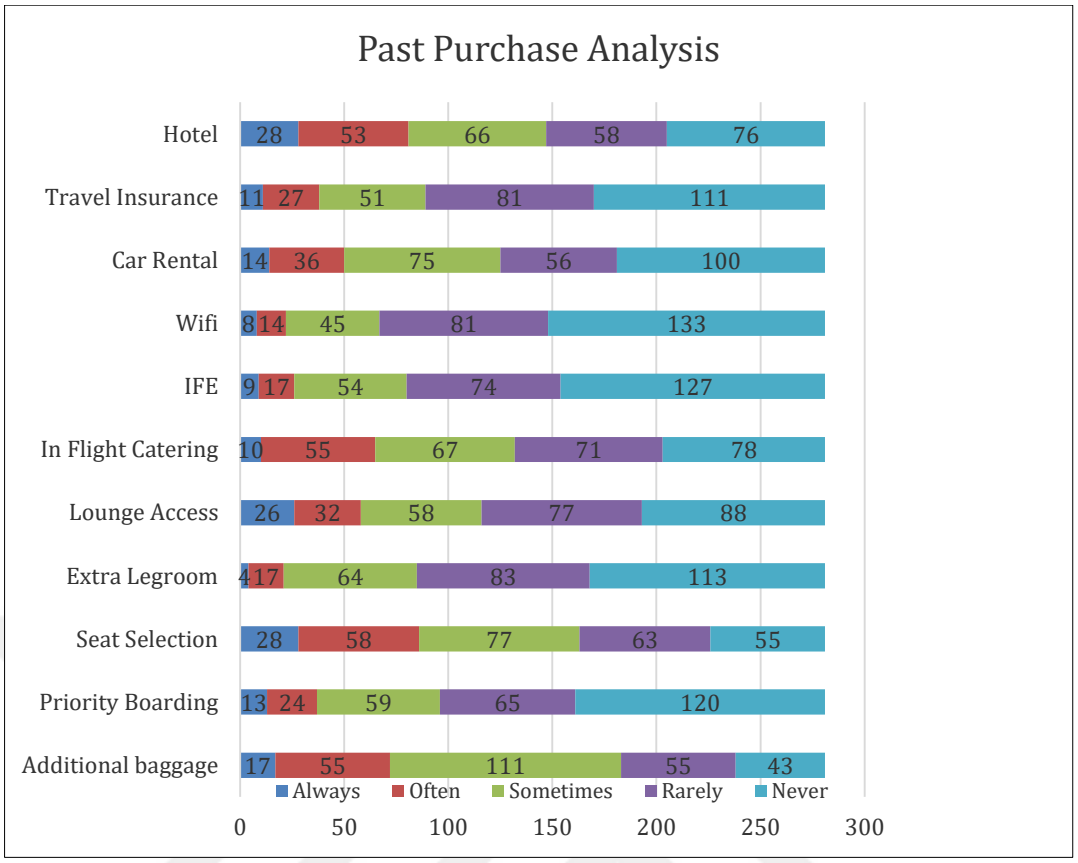

Figure 4.3. Ancillary Service Past Purchase Analysis

On average, 34% of the respondents stated that they did not purchase any ancillaries on their recent travels, as shown in Table 4.2. Conversely, 5% of the respondents said they always bought ancillaries during their travels. Around 47% of participants said they never purchased Wi-fi onboard during their journey. After Wi-fi, IFE was the second least preferred offer, with a 45% negative response rate. On the other hand, around 10% of the respondents always chose hotel and seat selection during their previous travels. Meanwhile, 9% of the attendees said they always use the lounge during their travels.

Table 4.2. Ancillary Past Purchase Frequency Distribution

Past Purchase	Always	Often	Sometimes	Rarely	Never
Additional baggage	6%	20%	40%	20%	15%

Table 4.2. (cont.)

Priority Boarding	5%	9%	21%	23%	43%
Seat Selection	10%	21%	27%	22%	20%
Extra Legroom	1%	6%	23%	30%	40%
Lounge Access	9%	11%	21%	27%	31%
In-Flight Catering	4%	20%	24%	25%	28%
IFE	3%	6%	19%	26%	45%
Wi-Fi	3%	5%	16%	29%	47%
Car Rental	5%	13%	27%	20%	36%
Travel Insurance	4%	10%	18%	29%	40%
Hotel	10%	19%	23%	21%	27%
Average	**5%**	**13%**	**24%**	**25%**	**34%**

Participants also asked where they had previously booked their ancillary services before. As shown in Figure 4.4, airline website or mobile applications are the highest preferred channels for all ancillary bookings. Secondly, they prefer online channels which has 20% share.

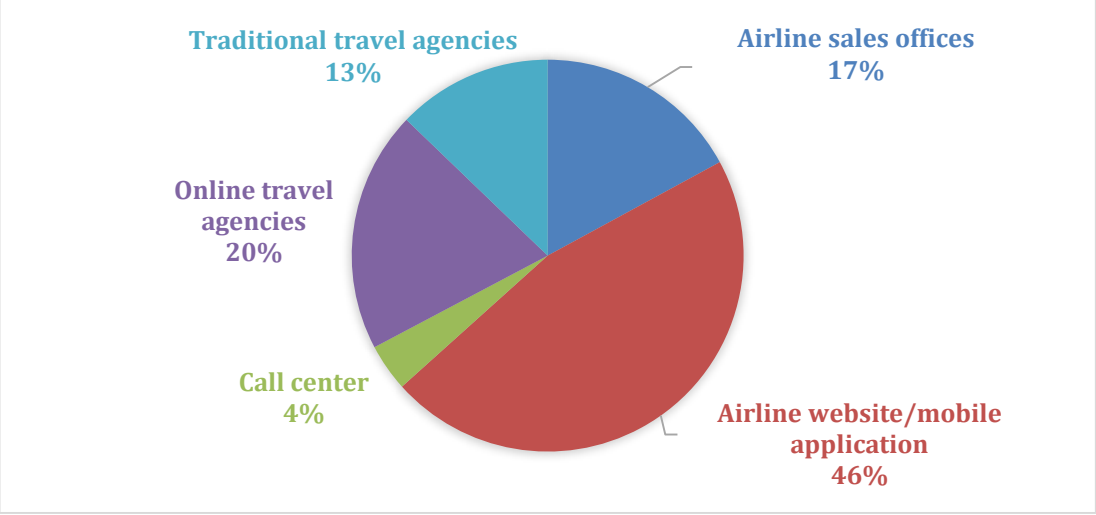

Figure 4.4. Ancillary Service Past Purchase Booking Channel Analysis

4.5.2. Future WTP Analysis

In the second part of the search, willingness to pay for ancillaries is studied, as shown in Figure 4.5. Additional baggage has the highest positive response among all ancillaries. Also, around 184 positive responses were received for long-haul trips, which is the highest range. After additional baggage, hotel, and seat selection come second and third highest ancillaries for future willingness to pay for ancillaries (Figure 4.5). Once we compare the past purchase data with future likelihood figures, we can say that extra legroom has the highest opportunity to grow in the market. It was observed that extra legroom was the least purchased ancillary. However, more respondents stated they are more likely to purchase in future travels.

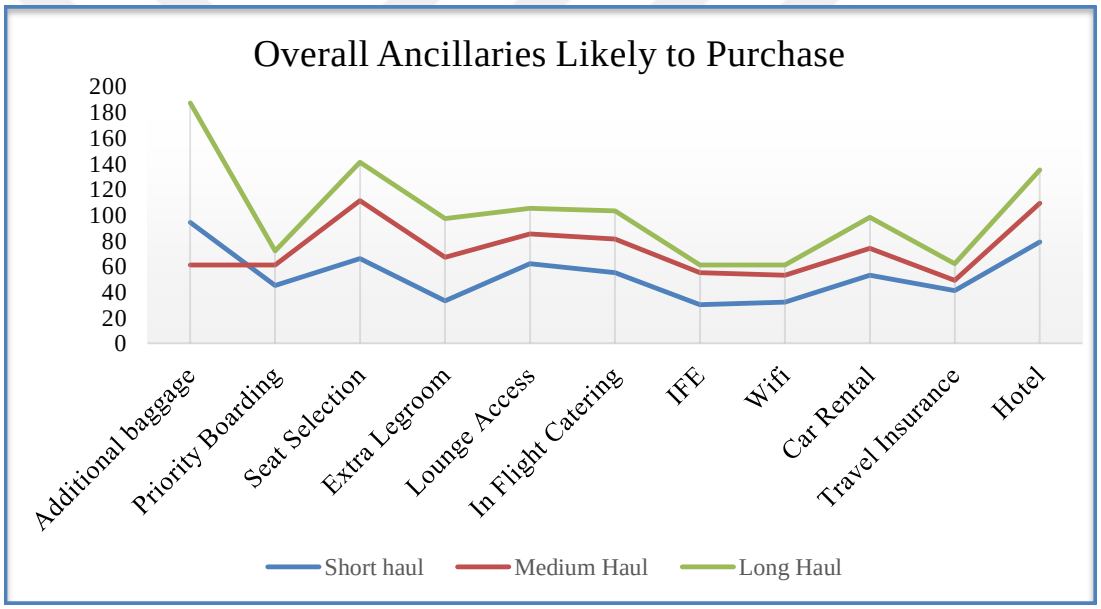

Figure 4.5. Ancillaries Likely to Purchase

4.5.3. Third-Party Ancillaries Through Airlines WTP Analysis

In the third part of the survey, participants are asked if they will purchase commission-based ancillaries such as hotel, car rental, and travel insurance directly from the airline website. (Figure 4.6). Most respondents said they are willing to purchase a hotel while booking their tickets from an airline website, mobile application, call center, or sales

office. The negative responses percentage was around 24% of those respondents that completed the survey.

Around 37% of the respondents were neutral about their future purchase intention. In comparison, only 24% said they would probably or would not be willing to buy non-ticket-related products through the airline. Also, approximately 40% of travelers probably or definitely will purchase third-party products from an airline in their future travel. It can be stated that the findings of this study are consistent with a similar previous study which is done by (O'Connell & Warnock-Smith, 2013, p.16).

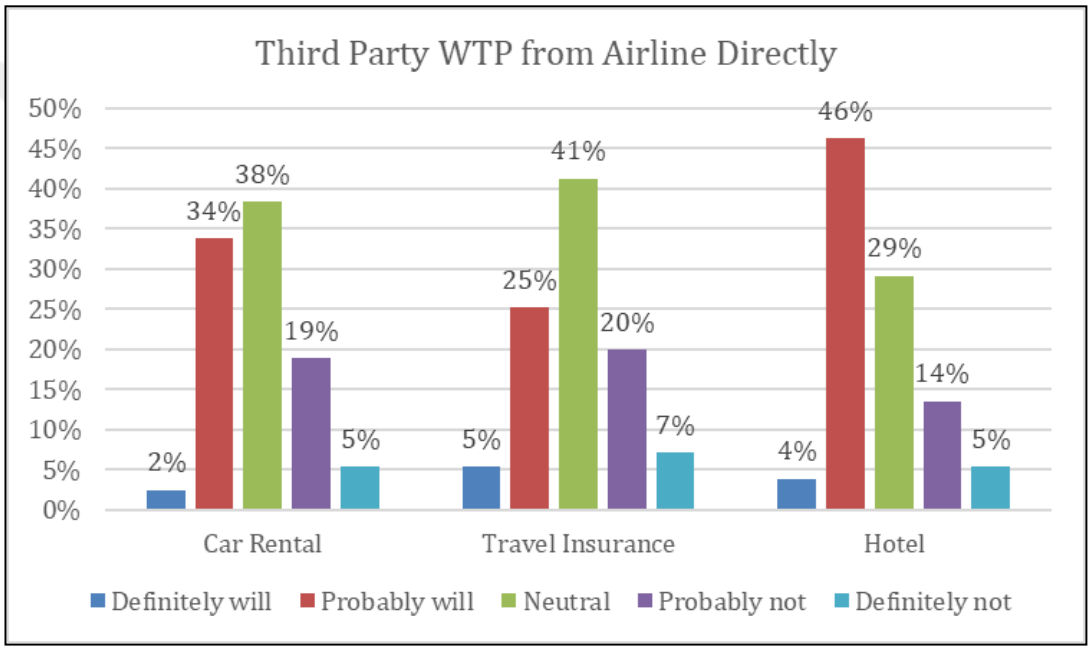

Figure 4.6. Willingness to Purchase Commission-Based Ancillaries Directly from Airline

In the last part of the study, participants were asked if they knew that airlines sell hotels, cars, and insurance on their websites. 60% of the participants stated that they were aware, while the remaining 40% of the respondents replied to the question negatively. As shown in Figure 4.7, almost half of the respondents (49%) said they prefer other well-known online agents. Around 30% stated that they "never wanted to," and around 13% of the participants selected the option 'airlines do not provide clear offers on their websites.

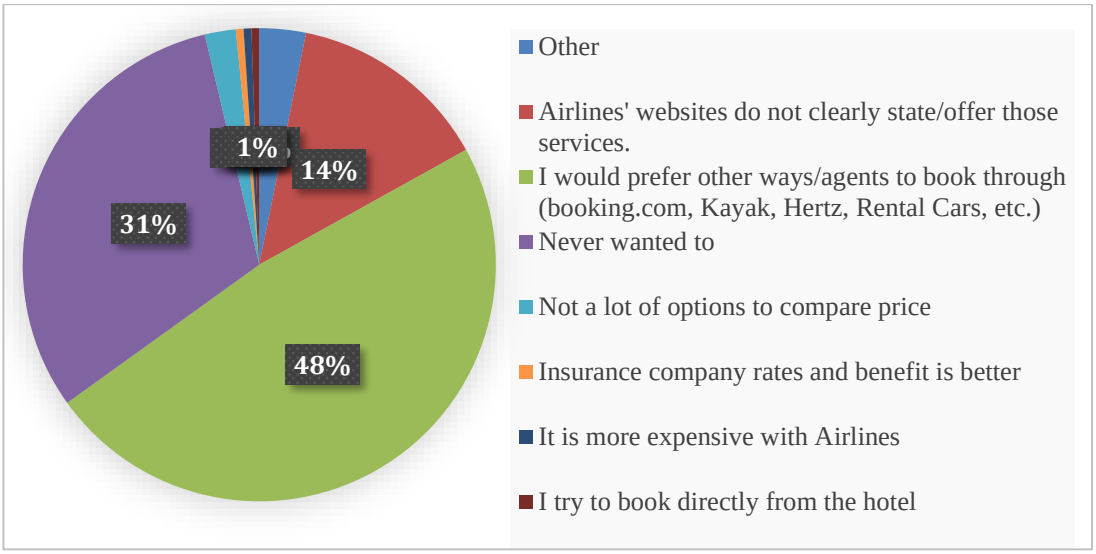

Figure 4.7. The Reasons for Not Booking from Airline Platforms

Lastly, the feedback of the participants regarding unbundling strategy has been examined. According to the study results, around 56% of the participants (a total of strongly agree & agree on results) stated that airlines should offer non-flight related services such as car rental and hotel. Similarly, 55% of the respondents indicated that airlines should offer different services with add-on fees and offer different price options. Finally, 61% of the participants believe that most airlines must clearly explain their inclusive/exclusive services (Figure 4.8).

Once we compare the past purchase behavior of the participants with their insights about airline ancillary offers, we can state that there are big opportunities for airlines to grow and increase their sales shares in the market. Over a couple of years, it became very popular among airlines to offer holiday packages on their websites. Most of the airlines promote not only hotel and car rentals but also event tickets, cruises, etc. Some airlines even offer other means of transportation, such as train tickets and car park vouchers. Traditional airlines must abandon their old-style ticket-only sales strategies to compete with other small and big-scale companies.

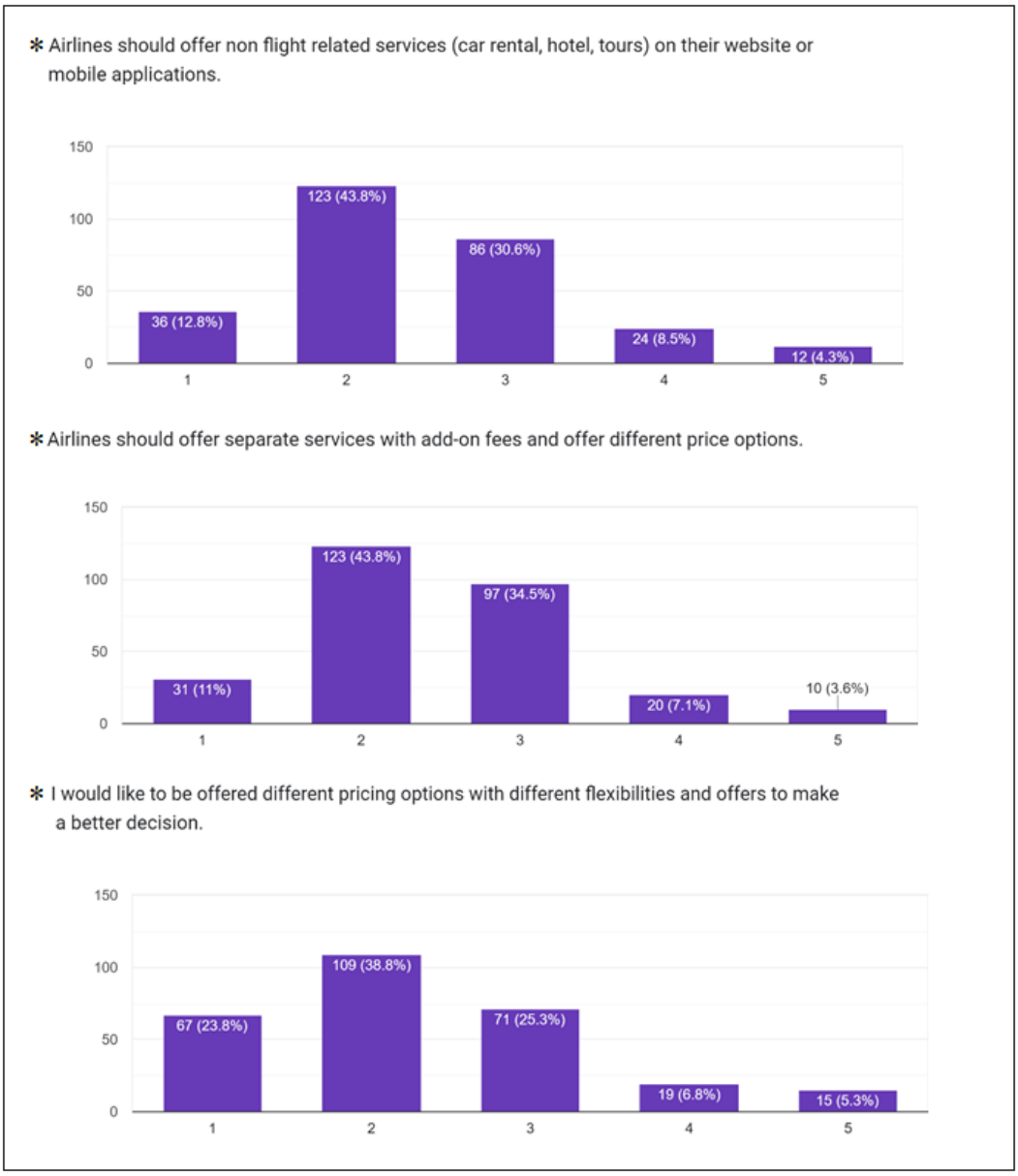

Figure 4.8. Feedback for the Airline Third Party Ancillary Sales (1-Strongly Agree - 5- Strongly Disagree)

4.6. Reliability Analysis

Reliability analysis measures the internal consistency of the scale in research. This concept reveals the consistency of all scale questions in a measurement tool, which tests the interrelatedness of the items within the test. For reliability, if the items in a test are correlated to each other, the value of alpha is increased. The alpha value is expected to be at least 0.70 (Cortina, 1998). This indicates that the scale of the research

is reliable. Accordingly, Cronbach's alpha values of the scales were greater than 0.70. Table 4.3 shows the reliability of the scale used in this study

Table 4.3. Reliability Statistics

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Purchase History	.881	.882	11
WTP-Short Haul	.940	.940	11
WTP-Medium Haul	.928	.927	11
WTP-Long Haul	.934	.933	11
AVERAGE	**.920**	**.920**	**11**

According to the item-total statistics table (Table 4.4), it is observed that deleting any item from the scale does not significantly increase the Cronbach Alpha value of 0.920. This indicates no need to remove any statement from the scale.

Table 4.4. Item-Total Statistics

Variables	Cronbach's Alpha if Item Deleted
Additional Baggage	.922
Priority Boarding	.910
Seat Selection	.916
Extra Legroom Seat	.913
Lounge Access	.910
In-Flight Food Beverage	.913
In-Flight Entertainment	.910
Wi-Fi	.911
Car Rental	.914
Travel Insurance	.910
Hotel	.917

4.7. Correlation Analysis

The correlation coefficient indicates the level of the relationship between all variables used in the analysis. This coefficient value may vary between (-1) and (+1); positive values indicate a direct linear relationship, and negative values indicate a non-linear relationship. (Nickolas, 2022) According to Table 4.5, all the values, except travel frequency, are above 0.01 and imply a positive linear relationship.

Table 4.5. Correlation Analysis of the Attributes

	1	2	3	4	5	6
Carrier	1					
Haul	.202**	1				
Cabin Class	.025	.097	1			
Income	.045	.037	.331**	1		
Travel Type	.132*	.032	.082	.138*	1	
Travel Freq	-.061	-.047	-.135*	-.258**	-.137*	1

4.8. Factor Analysis

The Kaiser-Mayer-Olkin (KMO) Suitability Test is studied to evaluate the scales' suitability for factor analysis. According to the scales, the Barlett test should be significant, and the Kaiser-Meyer-Olkin test should be greater than 0.50. If the KMO value is between $1.00 \leq KMO \leq 0.90$, it is considered perfect, while $0.60 \leq KMO$ is considered insufficient. Kaiser-Meyer-Olkin test results are given in Table 4.6 (Stephanie, 2021).

According to Table 4.6, the test results are found ‘good’ for priority boarding, IFE, and Wi-fi. On the other hand, additional baggage is stated as ‘bad,’ and the other options are either ‘weak’ or ‘mid.’ Accordingly, the KMO value of the scale for

ancillaries is 0.963, which implies that the sample size was satisfactory for the factor analysis test. None of the scales were found as ‘insufficient’ at the end of the analysis.

Table 4.6. Factor Analysis According to the Ancillaries

Attributes	KMO Value	Statement
Additional Baggage	.599	Bad
Priority Boarding	.806	Good
Seat Selection	.644	Weak
Extra Legroom Seat	.705	Mid
Lounge Access	.739	Mid
In-Flight Food Beverage	.739	Mid
In-Flight Entertainment	.813	Good
Wi-Fi	.804	Good
Car Rental	.707	Mid
Travel Insurance	.799	Mid
Hotel	.661	Weak

4.9. Regression Analysis

The relationship between the dependent and the independent variables is studied with regression analysis to test the hypothesis. To test the hypothesis, it is assumed that the data are generated by the regression model where y^t is an observation on the dependent variable, β is the population mean, which is the parameter of the regression function, and σ^2 is the variance of the error term. A more precise approach to deciding whether or not to reject the hypothesis is to calculate the P value, known as the marginal significance level (Davidson, MacKinnon, 1999, p.123-128). The stated approach has been used to study the relation between variables.

The effects of income, travel frequency, carrier type, flight duration, journey type, and cabin class on willingness to pay for ancillaries in terms of flight duration are tested as follows. WTP for ancillaries is examined for each category's short, medium, and long haul because the flight duration is directly related to the ancillary service

purchase. Each category is subdivided regarding travel duration to have a more comprehensive approach. For example, the effects of carrier type on WTP are studied for different hauls by looking at their average significance levels. Table 4.7 depicts the max-min, mean, standard deviation, and variance of the flight and passenger attributes of the respondents.

Table 4.7. Descriptive Analysis of the Respondent's Expenditure on Ancillaries

Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Income	281	1	10	4.11	1.977	3.910
Travel Frequency	281	1	5	3.27	.815	.664
Carrier Type	281	1	3	2.06	.770	.593
Duration of Flight	281	1	3	1.87	.578	.334
Journey Type	281	1	3	1.28	.636	.404
Cabin Class	281	1	4	1.32	.662	.439

4.10. Chi-Square Analysis

Pearson chi-square analyses have been conducted to test hypotheses. It is a technique to determine whether the data results significantly differ from what was previously expected. In social sciences, alpha is typically set at 0.05 (or 5%). This represents the acceptable error or the probability of rejecting a null hypothesis. Therefore, the p-value (significance level) should be equal to or less than 0,05 (Mindrila, Balentyne, 2013).
H1: Carrier type impacts WTP for ancillary products and services.

Table 4.8 shows a significant influence between carrier type and priority boarding, seat selection, extra legroom seat, inflight entertainment, Wi-fi, and third-party service purchases (P-value ≤ 0.05). Therefore, the hypothesis is accepted for those services.

On the other hand, there is no significant relation between carrier type and additional baggage, in-flight entertainment, or catering. It is possible to say that H1 is partially supported.

Table 4.8. Chi-Square Test for Carrier Type and WTP for Ancillaries

CARRIER TYPE								
Pearson Chi-Square	**df**	**SHORT-HAUL**		**MEDIUM-HAUL**		**LONG-HAUL**		**Average**
		Value	P	Value	P	Value	P	P-Value
Additional Baggage	10	18.245a	.051	13.692a	.188	20.721a	**.023**	0,087
Priority Boarding	10	32.843a	**<.001**	33.090a	**<.001**	47.314a	**<.001**	**0,001**
Seat Selection	10	30.724a	**<.001**	33.792a	**<.001**	31.886a	**<.001**	**0,001**
Extra Legroom Seat	10	23.712a	.008	15.160a	.126	27.723a	**.002**	**0,045**
Lounge Access	10	21.084a	**.021**	33.824a	**<.001**	31.869a	**<.001**	0,071
In-Flight Food Beverage	10	20.920a	**.022**	9.555a	.480	20.441a	.025	0,176
In-Flight Entertainment	10	17.908a	.057	19.150a	**.038**	39.023a	**<.001**	**0,032**
Wi-fi	10	26.674a	**.003**	26.064a	**.004**	28.997a	**.001**	**0,003**

Table 4.8. (cont.)

Car Rental	10	17.749a	.059	23.836a	.008	36.985a	**<.001**	**0,023**
Travel Insurance	10	20.359a	**.026**	23.194a	.010	27.116a	**.002**	**0,013**
Hotel	10	25.572a	**.004**	23.404a	.009	33.729a	**<.001**	**0,005**

According to Figure 4.9-11, the population distribution was 27% LCC, 41% FSC, and 33% for both carrier types. Additional baggage is the most likely to be purchased ancillary among all carrier travelers. On the other hand, Wi-fi was the most unlikely ancillary chosen by FSC or both travelers. However, for LCC travelers, the preference likelihood for Wi-Fi is quite high compared to other carrier types. Once we look at the data, 68% of the LCC travelers are younger than 35 years old. On the other hand, only 42% of the FSC passengers are under 35 years old. This means the younger population or students mostly prefer LCCs because of the affordable fares. Due to the internet usage habit of younger generations, they usually prefer to be connected during their flight.

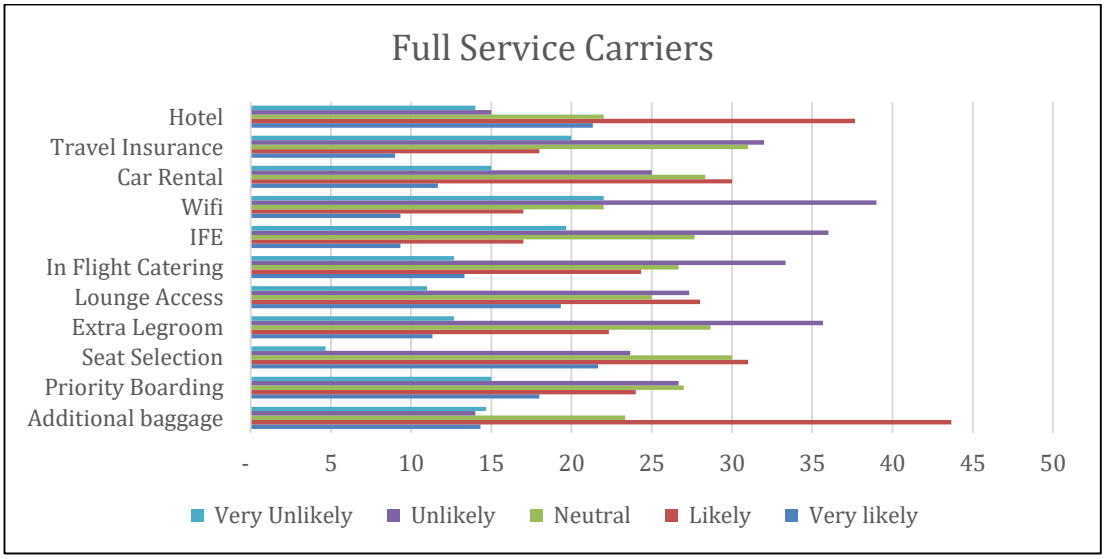

Figure 4.9. Willingness to Pay for Full-Service Carriers

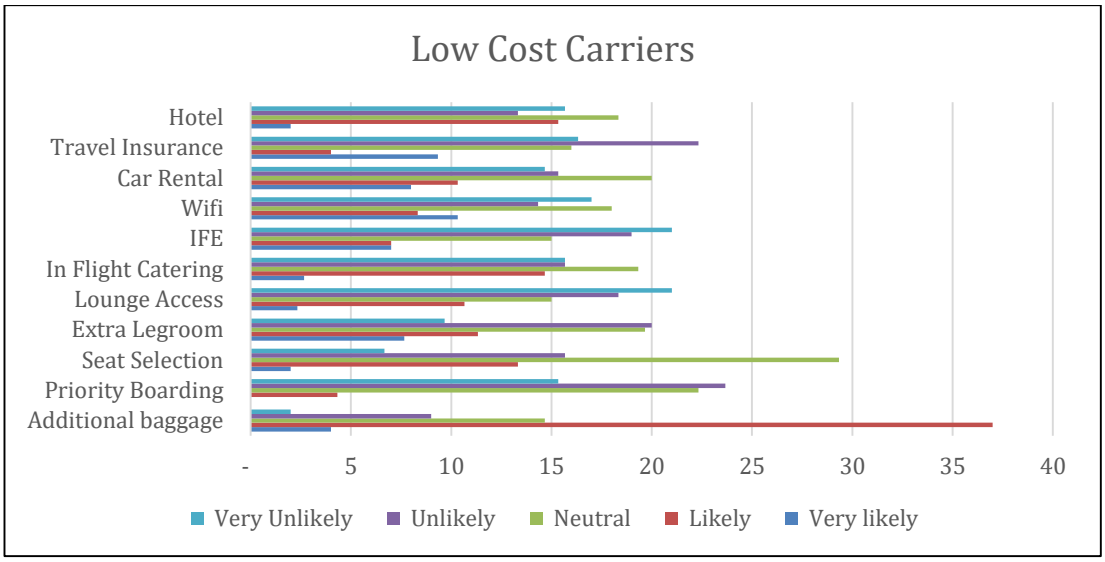

Figure 4.10. Willingness to Pay for Low-Cost Carriers

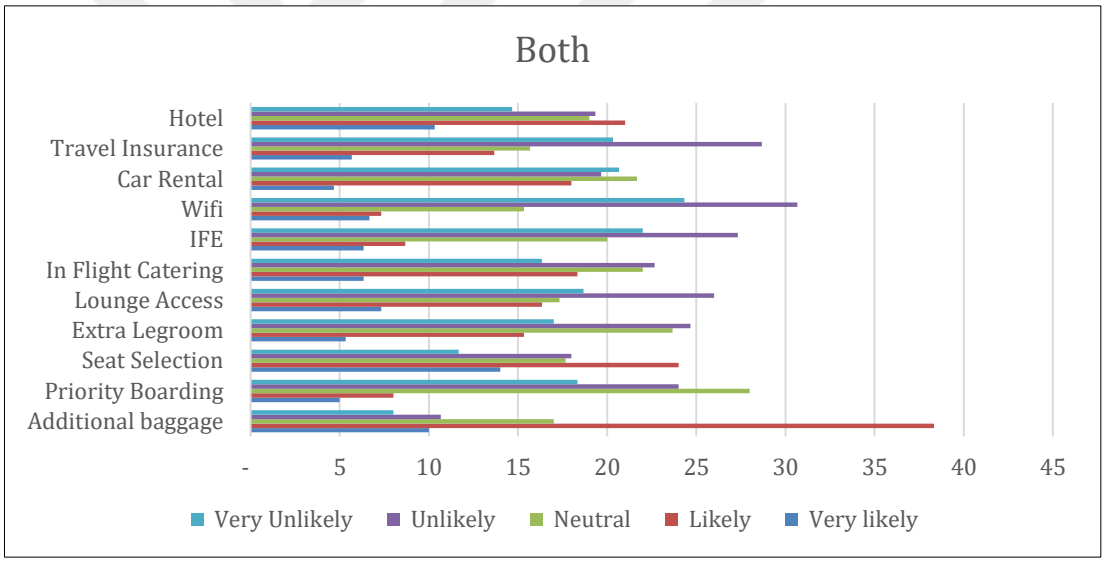

Figure 4.11. Willingness to Pay for Both Carriers

H1a: Low-cost carrier passengers are more willing to pay ancillaries because of the customer's habits and perspective toward ancillaries.

H1b: Full-service carrier passengers are less willing to pay for unbundled products since they already pay the higher ticket price.

In the second part of the study, the percentage of the WTP for the stated ancillaries is calculated for LCC, FSC, and both carriers separately. Table 4.9 indicates that

approximately 12% of low-cost travelers are likely or very likely to purchase ancillaries, while 18% of full-service carriers answered positively for their WTP for future bookings. Meanwhile, 19% of the FCC travelers responded negatively, while 21% of the LCC customers stated that they were unlikely or very unlikely to buy any of those stated ancillaries. In this case, H1a and H1b is not supported according to the below results.

Table 4.9. WTP Percentages for Ancillaries According to Carrier Types

Carrier Type	Baggage	Priority	Seat	Exit	Lounge	Food	IFE	Wi-Fi	Car	Insurance	Hotel	Average	
Both	**92**	**92**	**92**	**92**	**92**	**92**	**92**	**92**	**92**	**92**	**92**	**33%**	
Very likely	11%	5%	15%	6%	8%	7%	7%	7%	5%	6%	11%	8%	13%
Likely	42%	9%	26%	17%	18%	20%	9%	8%	20%	15%	23%	19%	
Neutral	18%	30%	19%	26%	19%	24%	22%	17%	24%	17%	21%	21%	
Unlikely	12%	26%	20%	27%	28%	25%	30%	33%	21%	31%	21%	25%	22%
Very Unlikely	9%	20%	13%	18%	20%	18%	24%	26%	22%	22%	16%	19%	
(blank)	9%	9%	7%	7%	7%	7%	8%	8%	8%	9%	8%	8%	
Full-service	**114**	**114**	**114**	**114**	**114**	**114**	**114**	**114**	**114**	**114**	**114**	**41%**	
Very likely	13%	16%	19%	10%	17%	12%	8%	8%	10%	8%	19%	13%	18%
Likely	38%	21%	27%	20%	25%	21%	15%	15%	26%	16%	33%	23%	
Neutral	20%	24%	26%	25%	22%	23%	24%	19%	25%	27%	19%	23%	

Table 4.9 (cont.)

Unlikely	12%	23%	21%	31%	24%	29%	32%	34%	22%	28%	13%	25%	19%
Very Unlikely	13%	13%	4%	11%	10%	11%	17%	19%	13%	18%	12%	13%	
(blank)	4%	3%	3%	3%	3%	3%	4%	4%	4%	4%	4%	3%	
Low-cost	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**27%**	
Very likely	5%	0%	3%	10%	3%	4%	9%	14%	11%	12%	3%	7%	12%
Likely	49%	6%	18%	15%	14%	20%	9%	11%	14%	5%	20%	17%	
Neutral	20%	30%	39%	26%	20%	26%	20%	24%	27%	21%	24%	25%	
Unlikely	12%	32%	21%	27%	2the 4%	21%	25%	19%	20%	30%	18%	23%	21%
Very Unlikely	3%	20%	9%	13%	28%	21%	28%	23%	20%	22%	21%	19%	
(blank)	11%	12%	11%	9%	10%	9%	8%	9%	9%	9%	14%	10%	
Grand Total	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**100%**	

H2: The duration of flight has an impact on WTP for ancillary products and services. One of the most popular discussions is that the duration of the flight has an impact on ancillary service purchases. Table 4.10 shows, it was found a strong relation between lounge access requests and travel duration. H2 is only supported for lounge access purchases. Already majority (65%) of the respondents prefer medium-haul travel. On the other hand, additional baggage, priority boarding, seat selection, extra legroom seat upgrades, catering, and commission-based ancillaries are found below 0.05 for medium-haul travelers. Overall, H2 partially supported differentiating the customers' purchase behavior regarding the different hauls.

Table 4.10. Chi-Square Test for Duration of Flight and WTP for Ancillaries

THE DURATION OF THE FLIGHT								
Pearson Chi-Square		**SHORT HAUL**		**MEDIUM HAUL**		**LONG HAUL**		**Average**
	df	Value	P-Value	Value	P-Value	Value	P-Value	P-Value
Additional Baggage	10	17.481a	.064	19.161a	**.038**	12.732a	.239	0,341
Priority Boarding	10	19.641a	**.033**	25.143a	**.005**	17.777a	.059	0,097
Seat Selection	10	15.767a	.107	24.643a	**.006**	23.032a	**.011**	0,178
Extra Legroom Seat	10	17.484a	.064	27.452a	**.002**	33.962a	**<.001**	0,085

Table 4.10 (cont.)

Lounge Access	10	27.657a	**.002**	37.198a	**<.001**	36.849a	**<.001**	**0,004**
In-Flight Food Beverage	10	21.013a	**.021**	42.241a	**<.001**	17.184a	.070	0,092
In-Flight Entertainment	10	19.057a	**.040**	18.111a	.053	10.172a	.426	0,519
Wi-fi	10	9.300a	.504	9.181a	.515	10.798a	.374	1,393
Car Rental	10	12.399a	.259	25.710a	**.004**	25.854a	**.004**	0,267
Travel Insurance	10	17.021a	.074	19.442a	**.035**	10.399a	.406	0,515
Hotel	10	20.756a		20.929a	**.022**	19.391a	**.036**	0,081

As stated above, the majority of the respondents stated that they travel medium haul. By considering geographical location, travelers spend time on the air approximately around 3 to 6 hours. Additional baggage and seat selection were the highest-rated ancillaries that medium and long-haul travelers chose. Also, lounge access was the highest positively rated ancillary among long-haul travelers, indicating that the time spent in the airport and onboard is related to the demand for lounge access. (Table 4.12-14)

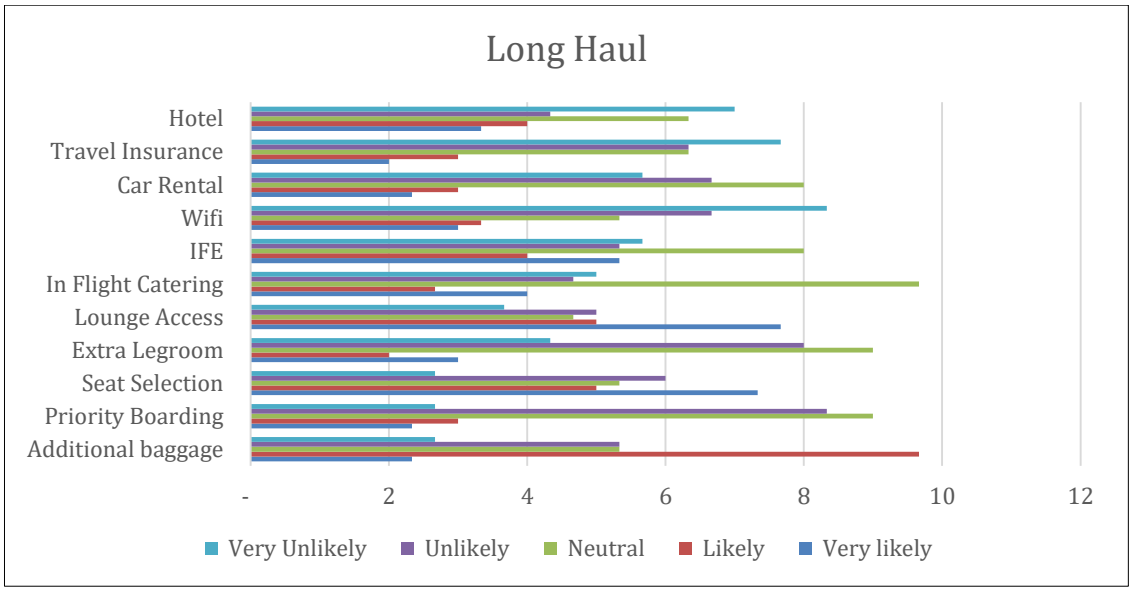

Figure 4.12. Willingness to Pay for Long Haul Flights

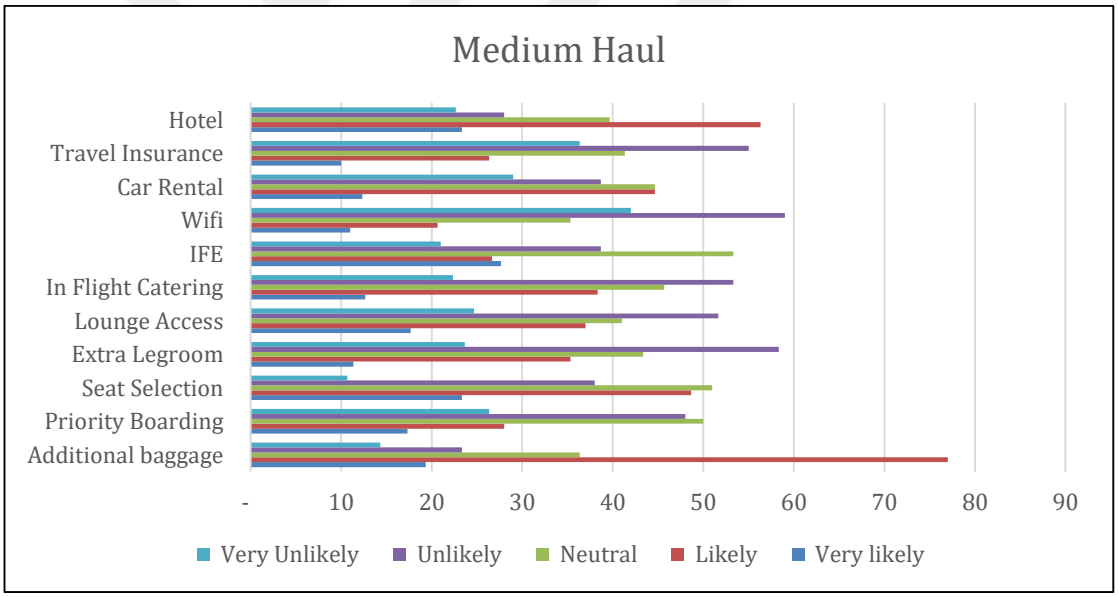

Figure 4.13. Willingness to Pay for Medium Haul Flights

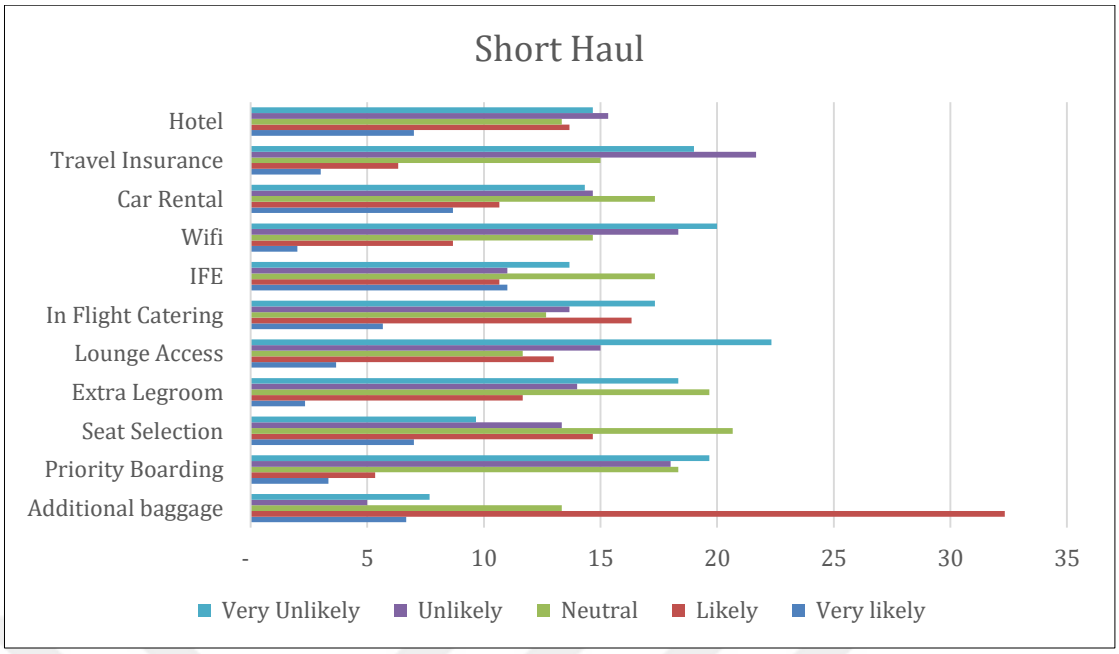

Figure 4.14. Willingness to Pay for Short Haul Flights

H2a: Short and medium-haul travelers are less willing to pay for additional services than long-haul passengers because of the time spent in the airport and onboard.

According to Table 4.11, no significant indication supports H2a, based on the assumption that long-haul passengers tend to pay more for additional services. 16% of medium-haul travelers stated that they are likely or very likely to purchase ancillaries, compared to 13% of positive feedback from long-haul travel passengers. As a result, H2a is not supported.

Table 4.11. WTP Percentages for Ancillaries According to Duration of Flight

Duration of Flight	Baggage	Priority	Seat	Exit	Lounge	Food	IFE	Wi-Fi	Car	Insurance	Hotel	Average	
Long Haul	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**11%**	
Very likely	8%	8%	24%	10%	25%	13%	17%	10%	8%	6%	11%	13%	13%
Likely	31%	10%	16%	6%	16%	9%	13%	11%	10%	10%	13%	13%	
Neutral	17%	29%	17%	29%	15%	31%	26%	17%	26%	20%	20%	23%	
Unlikely	17%	27%	19%	26%	16%	15%	17%	22%	22%	20%	14%	20%	18%
Very Unlikely	9%	9%	9%	14%	12%	16%	18%	27%	18%	25%	23%	16%	
(blank)	18%	18%	15%	15%	16%	16%	10%	14%	17%	18%	19%	16%	
Medium Haul	**183**	**183**	**183**	**183**	**183**	**183**	**183**	**183**	**183**	**183**	**183**	**65%**	
Very likely	11%	9%	13%	6%	10%	7%	15%	6%	7%	5%	13%	9%	16%
Likely	42%	15%	27%	19%	20%	21%	15%	11%	24%	14%	31%	22%	
Neutral	20%	27%	28%	24%	22%	25%	29%	19%	24%	23%	22%	24%	
Unlikely	13%	26%	21%	32%	28%	29%	21%	32%	21%	30%	15%	24%	19%

Table 4.11. (cont.)

Very Unlikely	8%	14%	6%	13%	13%	12%	11%	23%	16%	20%	12%	14%	
(blank)	7%	7%	6%	6%	6%	6%	18%	8%	7%	8%	7%	8%	
Short Haul	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**24%**	
Very likely	10%	5%	10%	3%	5%	8%	16%	3%	13%	4%	10%	8%	14%
Likely	48%	8%	22%	17%	19%	24%	16%	13%	16%	9%	20%	19%	
Neutral	20%	27%	31%	29%	17%	19%	26%	22%	26%	22%	20%	24%	
Unlikely	7%	27%	20%	21%	22%	20%	16%	27%	22%	32%	23%	22%	23%
Very Unlikely	11%	29%	14%	27%	33%	26%	20%	30%	21%	28%	22%	24%	
(blank)	3%	3%	2%	1%	2%	2%	142%	5%	142 %	3%	4%	28%	
Grand Total	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**100%**	

H3: Cabin Class choice has an impact on WTP for ancillary products and services

Table 4.12 shows a positive correlation between cabin class and priority boarding, seat selection, lounge access, inflight entertainment, and hotel (P-value ≤ 0.05). Therefore, H3 is accepted for those services. On the other hand, there is no significant relation between cabin class and additional baggage and travel insurance. H3 is partially supported by Table 4.12, stated ancillaries.

Table 4.12. Chi-Square Test for Cabin Class and WTP for Ancillaries

CABIN CLASS								
Pearson Chi-Square		**SHORT HAUL**		**MEDIUM HAUL**		**LONG HAUL**		**Average**
	df	Value	P-Value	Value	P-Value	Value	P-Value	P-Value
Additional Baggage	15	10.134a	.811	17.376a	.297	17.477a	.291	0,466
Priority Boarding	15	72.831a	**<.001**	53.181a	**<.001**	72.241a	**<.001**	**0,001**
Seat Selection	15	29.621a	**.013**	21.786a	.114	35.533a	**.002**	**0,043**
Extra Legroom Seat	15	19.884a	.176	11.220a	.737	30.463a	**.010**	0,308
Lounge Access	15	61.967a	**<.001**	45.433a	**<.001**	41.849a	**<.001**	**0,001**

Table 4.12 (cont.)

In-Flight Food Beverage	15	17.541a	.288	17.886a	.269	38.552a	**<.001**	0,186
In-Flight Entertainment	15	40.990a	**<.001**	23.627a	.072	45.962a	**<.001**	**0,025**
Wi-Fi	15	14.009a	.525	18.510a	.237	28.005a	**.022**	0,261
Car Rental	15	18.584a	.233	33.257a	**.004**	27.859a	**.022**	0,086
Travel Insurance	15	14.573a	.483	21.448a	.123	22.390a	.098	0,235
Hotel	15	24.216a	.062	30.362a	.011	23.775a	.069	**0,047**

Of 281 participants, 222 said they travel economy class, around 79%. On the other hand, only 10% of the respondents were business class travelers. Meanwhile, 11% were premium economy travelers. Figure 4.15-17 shows that additional baggage and hotel were economy-class travelers' preferred ancillaries. Meanwhile, seat selection and lounge were the top preferred ancillaries by business travelers.

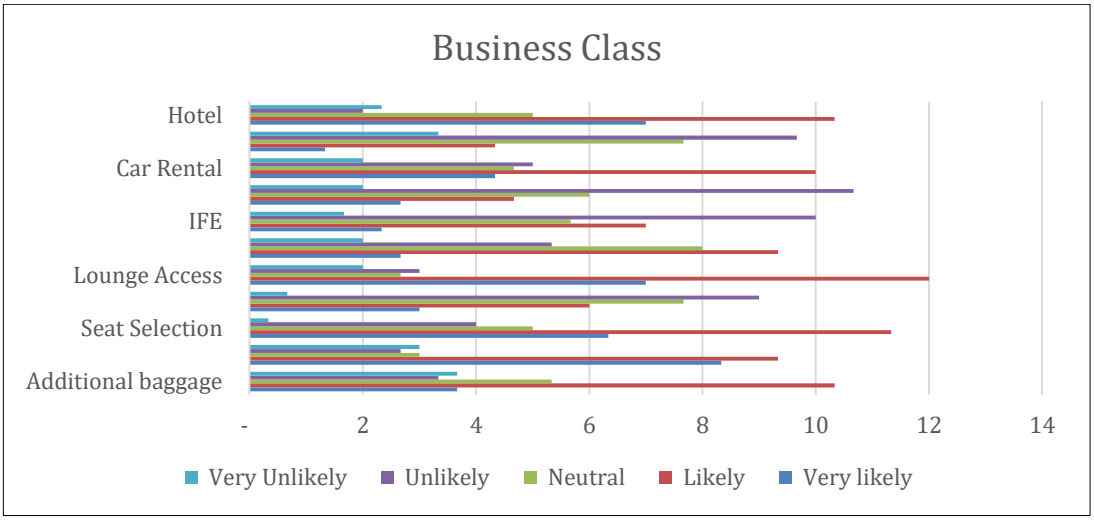

Figure 4.15. Willingness to Pay for Business Cabin Class

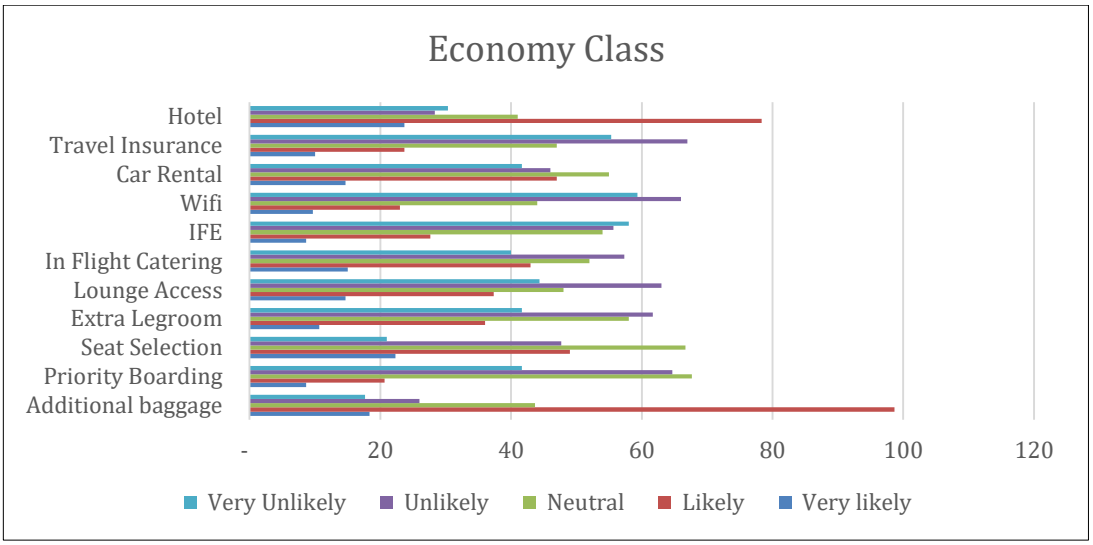

Figure 4.16. Willingness to Pay for Economy Cabin Class

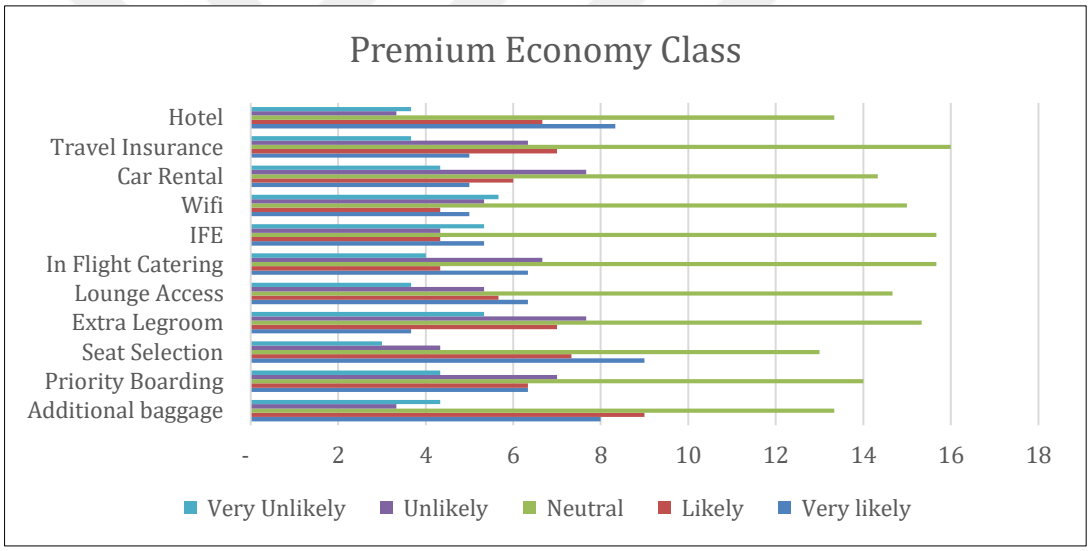

Figure 4.17. Willingness to Pay for Premium Economy Cabin Class

H3a: Business Class travelers have higher WTP for ancillaries

H3b: Economy class travelers have lower WTP for ancillaries

Higher cabin-class travelers have a higher tendency to purchase additional services. As shown in Table 4.13, on average, 23% of business cabin travelers stated that they are likely or very likely to purchase additional services. In comparison, 13% of the economy cabin travelers responded positively same question. 14% of the business class passengers answered negatively, while 21% of economy cabin travelers stated

that they are unlikely or very unlikely to buy ancillaries. Therefore, H3a and H3b are supported.

Table 4.13. WTP Percentages for Ancillaries According to Cabin Class

Cabin Class	Baggage	Priority	Seat	Exit	Lounge	Catering	IFE	Wi-Fi	Car	Insurance	Hotel	Average	
Business Class	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**10%**	
Very likely	13%	30%	23%	11%	25%	10%	8%	10%	15%	5%	25%	16%	23%
Likely	37%	33%	40%	21%	43%	33%	25%	17%	36%	15%	37%	31%	
Neutral	19%	11%	18%	27%	10%	29%	20%	21%	17%	27%	18%	20%	
Unlikely	12%	10%	14%	32%	11%	19%	36%	38%	18%	35%	7%	21%	14%
Very Unlikely	13%	11%	1%	2%	7%	7%	6%	7%	7%	12%	8%	7%	
(blank)	6%	6%	4%	6%	5%	2%	5%	7%	7%	6%	5%	5%	
Economy Class	**222**	**222**	**222**	**222**	**222**	**222**	**222**	**222**	**222**	**222**	**222**	**79%**	
Very likely	8%	4%	10%	5%	7%	7%	4%	4%	7%	5%	11%	6%	13%
Likely	44%	9%	22%	16%	17%	19%	12%	10%	21%	11%	35%	20%	

Table 4.13 (cont.)

Neutral	20%	30%	30%	26%	22%	23%	24%	20%	25%	21%	18%	24%	
Unlikely	12%	29%	21%	28%	28%	26%	25%	30%	21%	30%	13%	24%	21%
Very Unlikely	8%	19%	9%	19%	20%	18%	26%	27%	19%	25%	14%	18%	
(blank)	8%	8%	7%	6%	7%	7%	8%	9%	8%	9%	9%	8%	
Premium Economy	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**11%**	
Very likely	20%	16%	23%	9%	16%	16%	13%	13%	13%	13%	21%	16%	15%
Likely	23%	16%	18%	18%	14%	11%	11%	11%	15%	18%	17%	15%	
Neutral	33%	35%	33%	38%	37%	39%	39%	38%	36%	40%	33%	36%	
Unlikely	8%	18%	11%	19%	13%	17%	11%	13%	19%	16%	8%	14%	12%
Very Unlikely	11%	11%	8%	13%	9%	10%	13%	14%	11%	9%	9%	11%	
(blank)	4%	5%	8%	8%	7%	4%	5%	3%	4%	3%	5%	5%	
Grand Total	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**100%**	

H4: Annual income of the passengers has an impact on WTP for ancillary products and services

Around 50% of the respondents stated their annual income is between 25.000- 65.000 USD. Table 4.14 shows a significant influence (P-value ≤ 0.05) between income and willingness to pay for upgrades for priority boarding, extra legroom seat, wi-fi, and third-party bookings on average for all haul travelers. Therefore, hypotheses are accepted for those items, meanwhile rejected for additional baggage, seat selection, lounge access, in-flight catering, and entertainment. Therefore, it can be stated that H4 is partially supported.

Table 4.14. Chi-Square Test for Income and WTP for Ancillaries

INCOME								
Pearson Chi-Square		**SHORT HAUL**		**MEDIUM HAUL**		**LONG HAUL**		**Average**
	df	Value	P-Value	Value	P-Value	Value	P-Value	P-Value
Additional Baggage	45	65.834[a]	**.023**	57.258[a]	.104	57.258[a]	.104	0,077
Priority Boarding	45	81.135[a]	**<.001**	66.502[a]	**.020**	63.804[a]	**.034**	**0,021**
Seat Selection	45	61.084[a]	.055	47.695[a]	.364	53.279[a]	.186	0,202
Extra Legroom Seat	45	72.760[a]	**.005**	71.076[a]	**.008**	89.377[a]	**<.001**	**0,005**
Lounge Access	45	57.517[a]	.100	47.407[a]	.375	69.141[a]	**.012**	0,162

Table 4.14 (cont.)

In-Flight Food Beverage	45	65.673[a]	**.024**	56.882[a]	.110	49.464[a]	.300	0,145
In-Flight Entertainment	45	54.453[a]	.158	71.989[a]	**.006**	58.382[a]	.087	0,084
Wi-fi	45	73.303[a]	**.005**	66.630[a]	**.020**	59.455[a]	.073	**0,033**
Car Rental	45	64.832[a]	**.028**	69.682[a]	**.011**	82.498[a]	**<.001**	**0,013**
Travel Insurance	45	62.363[a]	**.044**	74.681[a]	**.004**	82.172[a]	**<.001**	**0,016**
Hotel	45	70.857[a]	**.008**	60.364[a]	.063	70.197[a]	**.010**	**0,027**

H5: The purpose of travel has an impact on WTP for ancillary products and services

According to the results of Table 4.15, overall, there was no significant value between the purpose of travel (leisure, business VFR (visit family or relative) and WTP on ancillaries. Once we examine each haul in detail, the P value of some ancillaries, such as priority boarding, lounge access, car rental, and insurance, is less than 0.05. Since there is no consistent and enough data, it is possible to say that H5 is rejected.

Table 4.15. Chi-Square Test for the Travel Purpose and WTP for Ancillaries

THE PURPOSE OF TRAVEL								
Pearson Chi-Square		**SHORT HAUL**		**MEDIUM HAUL**		**LONG HAUL**		**Average**
	df	Value	P-Value	Value	P-Value	Value	P-Value	P-Value

Table 4.15 (cont.)

Additional Baggage	10	8.579a	.572	14.236a	.163	16.537a	.085	0,273
Priority Boarding	10	18.127a	.053	22.657a	**.012**	16.170a	.095	0,089
Seat Selection	10	12.951a	.226	13.580a	.193	12.794a	.235	0,218
Extra Legroom Seat	10	8.651a	.565	10.219a	.421	10.465a	.401	0,462
Lounge Access	10	15.533a	.114	18.987a	**.040**	18.100a	.053	0,069
In-Flight Food Beverage	10	6.937a	.731	11.418a	.326	17.407a	.066	0,374
In-Flight Entertainment	10	12.314a	.265	10.322a	.413	19.424a	**.035**	0,238
Wifi	10	16.795a	.079	11.856a	.295	22.361a	**.013**	0,129
Car Rental	10	14.618a	.147	18.993a	**.040**	17.658a	.061	0,083
Travel Insurance	10	6.978a	.728	19.286a	**.037**	25.607a	**.004**	0,256
Hotel	10	14.989a	.132	12.474a	.255	21.301a	.019	0,135

H6: Travel frequency of passengers has an impact on WTP for ancillary products and services

According to the results of Table 4.16, it was found that there is a strong relation between WTP on ancillaries and travel frequency. P values of all ancillaries for the short, medium, and long haul are less than 0.05. Therefore, H6 is accepted for all scales.

Table 4.16. Chi-Square Test for Travel Frequency and WTP for Ancillaries

TRAVEL FREQUENCY								
Pearson Chi-Square		**SHORT HAUL**		**MEDIUM HAUL**		**LONG HAUL**		**Average**
	df	Value	P-Value	Value	P-Value	Value	P-Value	P-Value
Additional Baggage	20	51.556[a]	**.002**	70.079a	**<.001**	59.381a	**<.001**	**0,001**
Priority Boarding	20	55.614a	**<.001**	52.981a	**.002**	45.755a	**.003**	**0,002**
Seat Selection	20	55.825a	**.004**	69.018a	**<.001**	64.212a	**<.001**	**0,002**
Extra Legroom Seat	20	72.963a	**<.001**	82.503a	**<.001**	78.988a	**<.001**	**0,001**
Lounge Access	20	77.620a	**<.001**	73.911a	**<.001**	75.121a	**<.001**	**0,001**
In-Flight Food Beverage	20	64.030a	**.004**	57.252a	.008	59.697a	**<.001**	**0,005**
In-Flight Entertainment	20	68.910a	**.005**	62.213a	**<.001**	40.636a	**.004**	**0,004**
Wi-Fi	20	78.387a	**<.001**	48.007a	**<.005**	47.734a	**<.001**	**0,003**
Car Rental	20	80.465a	**<.001**	48.007a	**<.001**	51.418a	**<.001**	**0,001**
Travel Insurance	20	71.516a	**.002**	44.563a	**<.001**	59.390a	**.002**	**0,002**
Hotel	20	67.467a	**<.001**	66.715a	**<.001**	53.682a	**<.001**	**0,001**

46% of the population said they travel more than once a year. Once we examined it in detail, we can state that there is no strong direct proportional relation between baggage& third-party ancillaries and travel frequency. However, other comforts or quality-related ancillaries, such as seat selection, extra legroom upgrades, and inflight catering services, are directly and proportionally related to travel frequency (Table 4.18-21). The more passengers travel, the more they demand services to increase their overall journey quality.

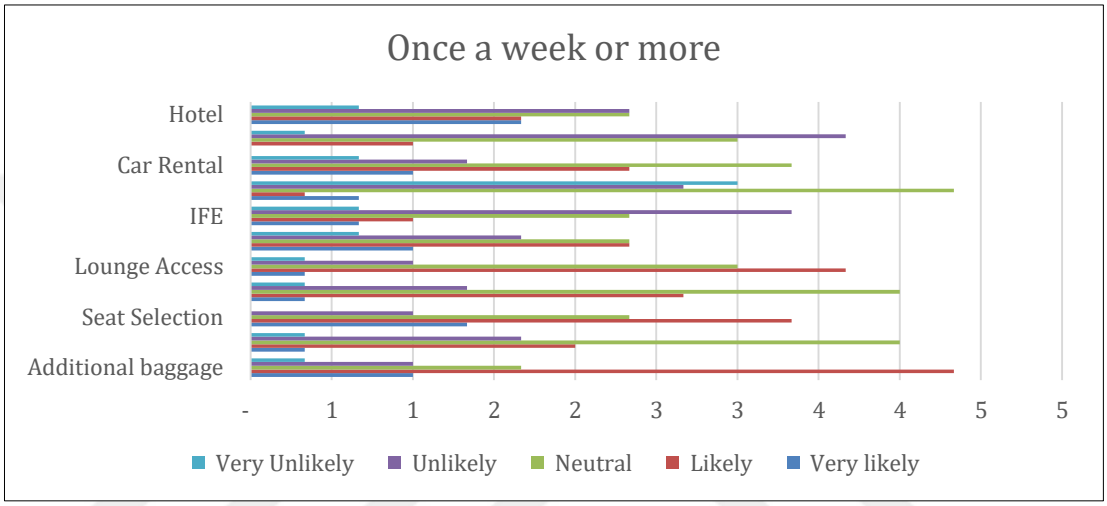

Figure 4.18. Willingness to Pay for Once a Week or More

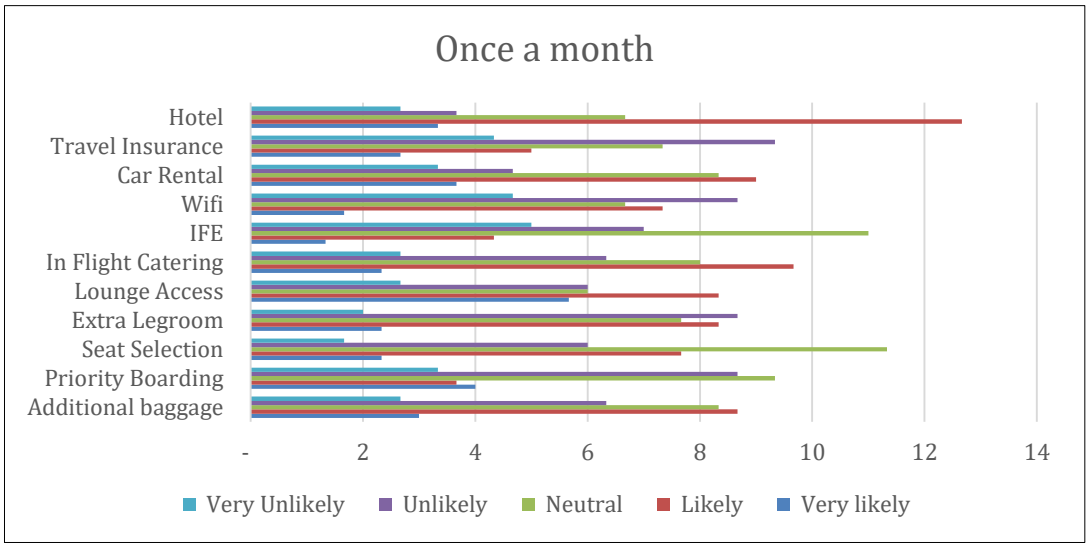

Figure 4.19. Willingness to Pay for Once a Month

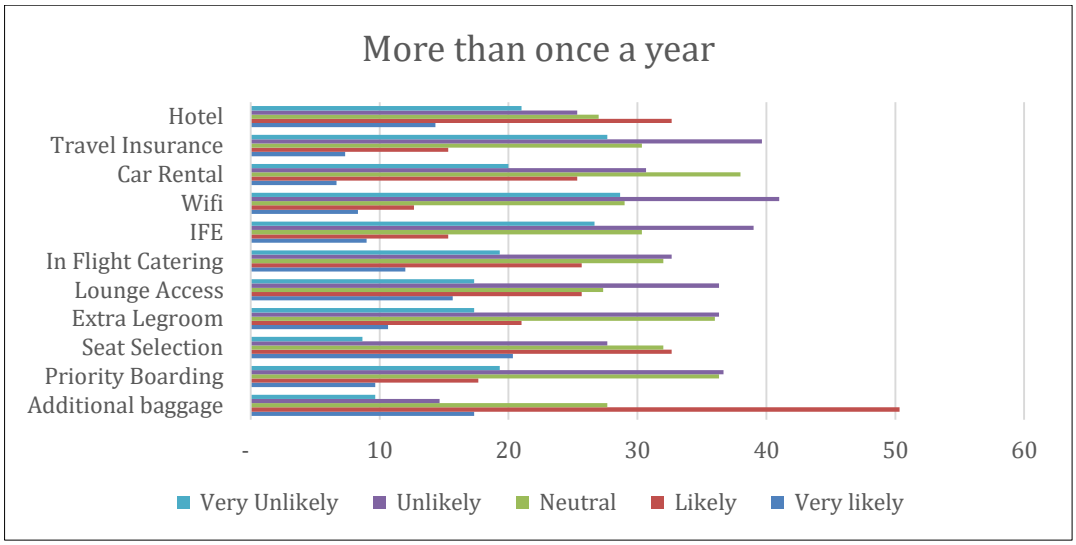

Figure 4.20. Willingness to Pay for More Than Once a Year

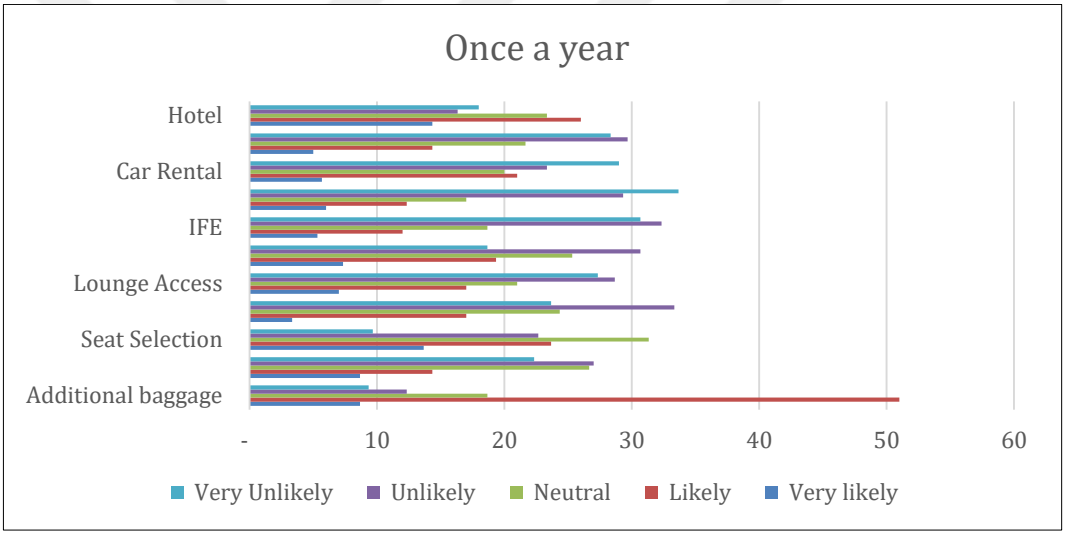

Figure 4.21. Willingness to Pay for Once a Year

H6a: Frequent flyer passengers are more WTP for additional services because of the amount of time spent during traveling.

As Table 4.17 shows below, the distribution of the ancillary purchase tendency is positively related to the frequency of traveling; for those who stated that they travel once a month & once a week or more, the positive answer rate was approximately 18%. Passengers who travel more than once a year replied with a 14% positive answer; meanwhile, less frequent flyers selected likely or very likely to buy additional services. Therefore, H6a is supported.

Table 4.17. WTP Percentages for Ancillaries According to Travel Frequency

Frequency	Baggage	Priority	Seat	Exit Row	Lounge	Catering	IFE	Wi-Fi	Car Rental	Insurance	Hotel	Average	
Once a week or more	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**3%**	
Very likely	11%	4%	15%	4%	4%	11%	7%	7%	11%	0%	19%	8%	18%
Likely	48%	22%	37%	30%	41%	26%	11%	4%	26%	11%	19%	25%	
Neutral	19%	44%	26%	44%	33%	26%	26%	48%	37%	33%	26%	33%	
Unlikely	11%	19%	11%	15%	11%	19%	37%	30%	15%	41%	26%	21%	14%
Very Unlikely	4%	4%	0%	4%	4%	7%	7%	33%	7%	4%	7%	7%	
(blank)	7%	7%	11%	4%	7%	11%	11%	7%	4%	11%	4%	8%	
Once a month	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**10%**	
Very likely	10%	14%	8%	8%	20%	8%	5%	6%	13%	9%	11%	10%	18%
Likely	30%	13%	26%	29%	29%	33%	15%	25%	31%	17%	44%	27%	
Neutral	29%	32%	39%	26%	21%	28%	38%	23%	29%	25%	23%	28%	

Table 4.17. (cont.)

Unlikely	22%	30%	21%	30%	21%	22%	24%	30%	16%	32%	13%	24%	17%
Very Unlikely	9%	11%	6%	7%	9%	9%	17%	16%	11%	15%	9%	11%	
(blank)	0%	0%	0%	0%	1%	0%	1%	0%	0%	1%	0%	0%	
More than once a year	**128**	**128**	**128**	**128**	**128**	**128**	**128**	**128**	**128**	**128**	**128**	**46%**	
Very likely	14%	8%	16%	8%	12%	9%	7%	7%	5%	6%	11%	9%	14%
Likely	39%	14%	26%	16%	20%	20%	12%	10%	20%	12%	26%	19%	
Neutral	22%	28%	25%	28%	21%	25%	24%	23%	30%	24%	21%	25%	
Unlikely	11%	29%	22%	28%	28%	26%	30%	32%	24%	31%	20%	26%	20%
Very Unlikely	8%	15%	7%	14%	14%	15%	21%	22%	16%	22%	16%	15%	
(blank)	7%	7%	5%	5%	4%	5%	6%	7%	6%	6%	6%	6%	
Once a year	**106**	**106**	**106**	**106**	**106**	**106**	**106**	**106**	**106**	**106**	**106**	**38%**	

Table 4.17 (cont.)

Very likely	8%	8%	13%	3%	7%	7%	5%	6%	5%	5%	14%	7%	13%
Likely	48%	14%	22%	16%	16%	18%	11%	12%	20%	14%	25%	20%	
Neutral	18%	25%	30%	23%	20%	24%	18%	16%	19%	20%	22%	21%	
Unlikely	12%	25%	21%	31%	27%	29%	31%	28%	22%	28%	15%	24%	23%
Very Unlikely	9%	21%	9%	22%	26%	18%	29%	32%	27%	27%	17%	21%	
(blank)	6%	7%	5%	4%	5%	4%	7%	7%	7%	7%	8%	6%	
Grand Total	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**281**	**100%**	

Table 4.18. Hypotheses and Results

HYPOTHESES	RESULTS
H1: Carrier type impacts WTP for ancillary products and services.	Partially Supported
H1a: Low-cost carrier passengers are more willing to pay ancillaries because of the customer's habits and perspective toward ancillaries.	Not Supported
H1b: Full-service carrier passengers are less willing to pay for unbundled products since they already pay higher ticket prices.	Not Supported
H2: The duration of flight has an impact on WTP for ancillary products and services.	Partially Supported
H2a: Short and medium-haul travelers are less willing to pay for additional services than long-haul passengers because of the time spent in the airport and onboard.	Not Supported
H3: Cabin Class choice has an impact on WTP for ancillary products and services	Partially Supported
H3a: Business Class travelers have higher WTP for ancillaries	Supported
H3b: Economy class travelers have lower WTP for ancillaries	Supported
H4: Annual income of the passengers has an impact on WTP for ancillary products and services	Partially Supported

Table 4.18 (cont.)

H5: The purpose of travel has an impact on WTP for ancillary products and services	Not Supported
H6: Travel frequency of passengers has an impact on WTP for ancillary products and services	Supported
H6a: Frequent flyer passengers are more WTP for additional services because of the amount of time spent during traveling.	Supported

CHAPTER V

CONCLUSION

Over the years, the airline sector started to operate with low-profit margins due to the highly sensitive structure to political and economic crises, variable operational costs, and high competition. Therefore, ancillary service revenue has become very important for airlines recently. Especially after the impact of COVID-19, ancillary revenue percentage continued to grow even during the difficult times for aviation while overall revenue charts were showing a declining trend. Also, many airlines started to develop a more personalized ancillary service approach to increase revenue and customer engagement.

When the data of the past years are examined, it is seen that many external factors financially and politically challenge the sector. Especially fluctuation of fuel prices forced airlines to seek more creative methods to increase profitability. Other than fuel prices, the deregulation of the aviation sector opened the doors for new airlines to enter the sector. With the newcomers, rivalry increased automatically. This pushed some airlines to differentiate their prices by unbundling their services to offer more compatible rates for different types of customers. As a result of this new emerging market, the low-cost carriers initiated ancillaries by unbundling the main fare and other service fees.

Most airlines started to seek more innovative approaches to gain more revenue from current ancillaries and apply new methods of additional services. Other than low-cost carriers, full-service airlines also started to apply an unbundled ticket fare strategy by charging for additional ancillary revenue to gain more revenue. Since the positive impact of ancillary revenues is well perceived, full-service carriers started to develop strategies to sell commission-based ancillaries and unbundled ticket-related products. It is very important to distinguish customer satisfaction and expectations due to the nature of the all-inclusive service provided previously by those airlines.

The relationship with customers WTP and main ancillaries has been examined since the additional revenue will affect the sector intensely and change its main structure in the upcoming years. This study's main focus is the willingness to pay for ancillaries. Since the revenue must come from ancillaries for airlines, it is also vital to understand the customers' perspective on these services. To understand customer expectancy, it is considered under two different categories as the main travel features and customer attributes.

A research study has been conducted among 281 travelers to measure their WTP for ancillaries. This paper analyzes how customer choices and travel attributes affect willingness to pay for ancillaries in terms of carrier type, flight duration, cabin class, annual income of passengers, travel purpose, and travel frequency. Initially, six main and six sub-hypotheses are defined by stating that carrier type, flight duration, cabin class, annual income of passengers, travel purpose, and travel frequency affect the choice and WTP of ancillaries. Chi-square analysis was applied by measuring statistical significance levels to test the hypotheses.

According to the results of the study, it was found that hypotheses 1 to 4 (carrier type, duration of flight, cabin class, and passengers' income) partially supported the initial hypotheses. On the other hand, hypothesis 5 (purpose of travel) is not supported; meanwhile, hypothesis 6 (travel frequency) is supported. Each category was examined for short, medium, and long hauls because the attendees' responses tend to differ according to the flight duration. The average of each category has been accounted for in the final calculation.

In summary, WTP for various ancillary services was shown to differ between the low-cost carrier and full-service carrier passengers partially, short-medium and long-haul flights, economy and business travelers, and passengers' overall income. Also, there is a direct proportional relation between ancillaries and travel frequency. There was no direct relation between the purpose of travel and WTP for additional service offers.

The results significantly influence carrier type, priority boarding, seat selection, extra legroom seat, inflight entertainment, wi-fi, and third-party service purchases.

Additional baggage is the most likely to be purchased ancillary among all carrier-type travelers. On the other hand, Wi-fi was the most unlikely ancillary chosen by FSC or Hybrid travelers. However, for LCC travelers, the preference likelihood for Wi-Fi is quite high compared to other carrier types.

The higher demand for Wi-fi in LCCs can be associated with the customer profile of LCCs. Once we look at the data, 68% of the LCC travelers are younger than 35 years old. On the other hand, only 42% of the FSC passengers are under 35 years old. This means the younger population or students mostly prefer LCCs because of the affordable fares. Due to the internet usage habit of younger generations, it is possible to state that they are not willing to be disconnected during flying even though they are fine with cutting costs for other services. Airlines targeting younger audiences should consider this information while designing their product offers.

According to this study, airlines could benefit from the customer's ancillary preferences and WTPs based on the type of carrier, length of journey, cabin class, the income of the travelers, journey purpose, and travel frequency. There were significant differences in purchasing additional baggage and Wi-Fi for LCC carriers compared to the other options with different carrier types. FSCs should keep their baggage policy and different pricing for the destination and cabin classes by applying a more dynamic pricing strategy to maximize their revenue. LCCs should enhance their technology and online connection offers to maximize their profit margin. Moreover, they should concentrate on online purchase options inside the airplane since the younger generation tends to shop more online.

Also, there is a positive correlation between priority boarding, seat selection, lounge access, inflight entertainment and hotel, and cabin class choice. Additional baggage and hotel were the top preferred ancillaries for economy class travelers. Meanwhile, seat selection and lounge access are the top preferred ancillaries by business travelers. Higher cabin-class travelers have a higher tendency to purchase additional services. However, since customer satisfaction is very important for higher cabin class travelers, airlines should focus on product differentiation while designing their offer programs.

It is observed that additional baggage is most likely valued for long haul and short haul trips more than medium haul. This might be related to the shopping behavior of the passengers for specific destinations in the region. Additionally, business travelers are much more likely to value the benefit of seat selection more than economy travelers. On the other hand, priority boarding and lounge access are more preferred ancillaries for full-service airline passengers. Airlines could use this information by designing their offers and campaigns with a more customer segmentation approach.

Furthermore, we can state that there is a directly proportional relation between seat selection, extra legroom upgrade, in-flight catering services, and travel frequency. Once the frequency of travel increases, passengers are more willing to buy such ancillaries to increase their overall journey quality. FFP programs are the best way to connect with such passengers to maintain or increase the lifetime value of such customers. It is well known that customer lifetime value is vital to the airlines since finding a new customer is more costly than retaining an existing one.

Airlines can focus and make real-time lounge offers to passengers traveling on longer trips or with longer transit hours during purchase or check-in. Statistically important variances were discovered for the purchase of excess baggage, priority boarding, and access to the airport lounges. Also, lounge access was the highest positively rated ancillary among long-haul travelers indicating that the amount of time spent in the airport and onboard is related to the demand for lounge access, especially for those who have longer transit hours and would prefer to enter lounges to rest and utilize their time more efficiently.

It was also found that commission-based ancillaries are demanded by passengers as well as other unbundled products/services. Especially for hotels, there is an overall tendency for travelers to book from online travel agencies. However, airline websites and mobile applications are least known and used by passengers due to the fewer options. There is a great opportunity for airlines to grow in the holiday packaging sector. Airlines should offer more different accommodation and transportation options to their profile to increase their third-party booking revenues.

Airlines should invest heavily in their technologies and in-flight internet connection systems to expand their customer engagement points. Also, real-time CRM campaign offers can help to reach customers precisely. Companies, which have dynamism and easy accessibility functions, can engage with the correct passengers and boost their ancillary sales exponentially. Companies should analyze their customer data and market data to understand customer needs. Well-integrated passenger-consumer data can improve companies' overall success. It is well understood that investing in focused market data further about ancillary products is essential for the growth of the companies.

This study was conducted with a limited number of participants from Bahrain. Due to the time restrictions, this study was limited to voyagers who traveled from Bahrain only. Since there is less research has been done in the region, this research may guide other potential studies in the future. However, future research with larger participants must ensure that the study results can be more widely applied. Especially including more countries from the GCC region can add more value to the literature. More beneficial and wider results can be obtained by studying the relationships and effects between different variables and dimensions.

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