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A RESEARCH ON TURKISH INTERNATIONAL PASSENGERS' INTENTION IN PURCHASING AIRLINE ANCILLARIES

Ferhan Kuyucak Şengür¹, Mustafa Uzgör², Temel Caner Ustaömer³

¹ Faculty of Aeronautics and Astronautics, Anadolu University, tel, +902223350580,
email:fkuyucak@anadolu.edu.tr

² Faculty of Aeronautics and Astronautics, Anadolu University, tel, +902223350580,
email:mustafauzgor@anadolu.edu.tr

³ Faculty of Aeronautics and Astronautics, Anadolu University, tel, +902223350580,
email:temelcanerustaomer@anadolu.edu.tr

Abstract:

Tough environment of airline industry leads airlines to find new strategies to survive. One of these strategies is to unbundle products and services which were included in airfare before. In this study, with survey instrument as a data gathering method, it was aimed to determine international Turkish passengers' attitudes towards purchasing ancillaries. According to the results, majority of respondents are undecided in purchasing a la carte and commission-based ancillaries. Examining the past buying behaviors of international Turkish passengers revealed that seat assignment, excess luggage, food, and beverage were demanded more frequently than other ancillaries were. Moreover, there was not determined any statistical relationship between demographic characteristics of respondents and the probability of purchasing ancillaries.

Key words:

Ancillary revenue, a la carte ancillaries, commission-based ancillaries

INTRODUCTION

Making profits in the airline industry endures challenging. The airline industry has only achieved marginal profitability through the decades which can be precisely associated to its overleveraged balance sheets, high fixed cost structure, network fragmentation, low barriers to entry, high barriers to exit, fluctuating fuel prices, strong unions, monopolistic/oligopolistic suppliers, cyclical macroeconomics- which are just a small sample of barriers that hinder profitability [1].

In this tough environment, airlines are developing different strategies to survive. One of these strategies is that airlines offer their products and services, which were previously included in the airfare, to the passengers separately. This strategy leads airlines to gain significant revenue in recent years.

In this study, the intentions of international passengers in Turkey to purchase ancillary products and services are examined. In this context, firstly, literature on ancillary revenue will be reviewed and then the importance of ancillary revenue will be discussed. Finally, the survey data gathered from international passengers will be analyzed and their attitudes towards purchasing ancillary products and services will be determined.

1 LITERATURE REVIEW

There is a growing literature in airline ancillary revenues. [2] employed an on-line choice experiment to analyze passenger preferences related to the bundle of services on offer when choosing to buy a flight. They used the Bayesian methods to predict a mixed logit specification. Their outcomes show that passengers prefer to pay a proportionately large amount for improved service quality. [3] reviewed product debundling trends in the United States airline industry. They examined various sources of ancillary fees connected to checked baggage, frequent flyer ticket redemptions, on-board pets, ticketing exchanges and refunds, day of departure standby policies, and preferred and/or seating assignments. Their results showed that ancillary fees would be mostly embraced by low cost airlines. Moreover, many network airlines would eliminate ancillary fees, as they can affect other system performance intentions. [4] determined passenger preferences and acceptability levels for ancillaries by implementing a passenger survey. They found that checked baggage charges and airport car parking were the most accepted unbundled products and commission based for airlines. Another important result is that none of the ancillary services and products accomplished a high take up rating implying that airlines have to do much more to persuade passengers of the value and benefit in airlines selling ancillary services and products to them. [5] determined the viability and passenger value of ancillaries for economy class passengers of European traditional airlines. They conducted a choice model the implicit choices related to ancillaries of economy passengers. The results showed that economy passengers perceive value in ancillaries and intend to buy such services if they offer the passenger utility and added value. [1] examined the performance of airline ancillary revenues, which are commission based income and unbundled products. They identified that passengers give importance to a narrow range of perceived “necessity” services and products such as food and drink, seat assignment, and checked baggage as contrasted to observed “optional” commission based or unbundled services/products. They also identified compelling dissimilarities in the willingness of passengers to pay for specific ancillary services based on length of flight (long and short haul), carrier type (Full Service Carrier/Low Cost Carrier/Charter) and journey purpose (leisure, business, Visiting friends and relatives). [6] studied the interaction between the firm’s use of main service price discrimination and the optimal ancillary strategy by analyzing two types of firms: Firms that use discriminatory pricing of main service and firms that use uniform pricing of main service. They found that a uniform-pricing firm should unbundle the ancillary service if the customers that give more importance to the main service higher are also very likely to buy the ancillary service. [7] investigated how airlines use ancillaries in their favour to add value and revenue sources to the booking engine, increase customer satisfaction and revenues, offer flexibility to their passengers, interact with passengers to differentiate their brand and create commercial opportunities. According to his findings, airlines must learn from the e-commerce companies and personalize offer. Airlines also should move from a strategy that cares yield maximization and seat sales to a more

customer centered focus, benefitting the power of individual customer data across the entire journey. [8] evaluated antecedents to purchase intention and actual purchase behavior of US domestic airline passengers of airline ancillary services by using generalized linear model and logistic regression and data collected from Amazon Mechanical Turk. According to their results, airline passenger preferences differ when purchasing ancillary services. The trip purpose and the number of times a passenger flies per year are significant, while gender and age are not.

Literature on ancillary revenues in Turkish air transportation market has two studies. [9] explored ancillary revenue opportunities for low cost airlines in Turkish domestic aviation market. According to her findings, passengers accept to pay for many of ancillaries although the amounts are highly variable among different segments. The results also show that demographic characteristics of the passengers such as occupation, age, flight destination, gender and purpose of flight have significant effects on their willingness to pay for various ancillaries. [10] has examined the purchase intentions of Turkish passengers in respect of ancillary products for airline domestic market. According to the results of this study, the tendency of buying ancillary products for Turkish domestic passengers was found low and Turkish domestic passengers are not willing to buy airline ancillary products with extra cost, however reasonable prices might trigger the buying behavior.

Although there are many studies on airline ancillary revenues in the literature, the number of studies related to Turkey is limited [9,10]. The studies mentioned in the literature are related to Turkish domestic passengers. In the literature, there is no any previous study on Turkish international passengers' intention in purchasing airline ancillaries. This study is believed to fill this important gap.

2 THE IMPORTANCE OF ANCILLARY REVENUE

According to Bejar, Low Cost Carriers (LCCs) began the airline ancillary revenue movement. LCCs are defined the airlines which offer low-fares based on low-costs through abandoning some services that traditional airlines provide [11]. These airlines were first to understand the significance of Internet as a promoter of revenue generation. Ryanair was the first airline in 2000, which launched car hire and hotel bookings on its website. Other airlines followed its move. In the beginning, ancillary revenues were mostly related to LCCs. Today, it is evolving into a must activity embraced by all types of airlines, containing full-service carriers.

Ideaworks define ancillary revenue as follows; "revenue beyond the sale of tickets that is generated by direct sales to passengers, or indirectly as a part of the travel experience". Ideaworks further categorizes ancillary revenue using these categories [12]:

- **Frequent Flier Programs:** This category mainly consists of the sale of points or miles to program associates such as online malls, hotel chains, co-branded credit cards, car rental companies, communication services and retailers. The direct sales of points or miles to program members are also valid.
- **A la Carte Features:** A la carte category consists of the items passengers can buy to improve their air travel experience. The list includes the following activities:
 - onboard sales of beverages and food,
 - assigned seats or better seats,
 - checking of baggage and excess baggage,
 - priority check-in and screening,
 - wireless Internet connection,
 - call center help for reservations,

- onboard entertainment systems,
- fees charged for purchases made with debit or credit cards, and
- early boarding benefits.
- **Commission-Based Products:** In this category, there are commissions gained by airlines on the sale of car rentals, travel insurance, and hotel accommodation. This category mainly is related to the airline’s website. However, it also includes the sale of consumer and duty-free products onboard aircraft.
- **Advertising Sold by the Airline.** This category contains any advertising initiative related to passenger travel. Common activities in this category includes the followings;
 - advertising messages sold in or on aircraft, gate areas, loading bridges, and airport lounges,
 - revenue earned from the inflight magazine, and
 - fee-based placement of consumer samples and products.

By providing unbundled low airfares, airlines can more productively challenge against the full service airlines for higher yield passengers at the hub airports and can appeal to price-sensitive passengers to their secondary airports from faraway distances. Some cost reductions as well as additional revenue are generated thanks to charging for optional services. As an example, selling onboard drinks and snacks lowers the disposal problem, and baggage fees reduce the amount of hold baggage [13].

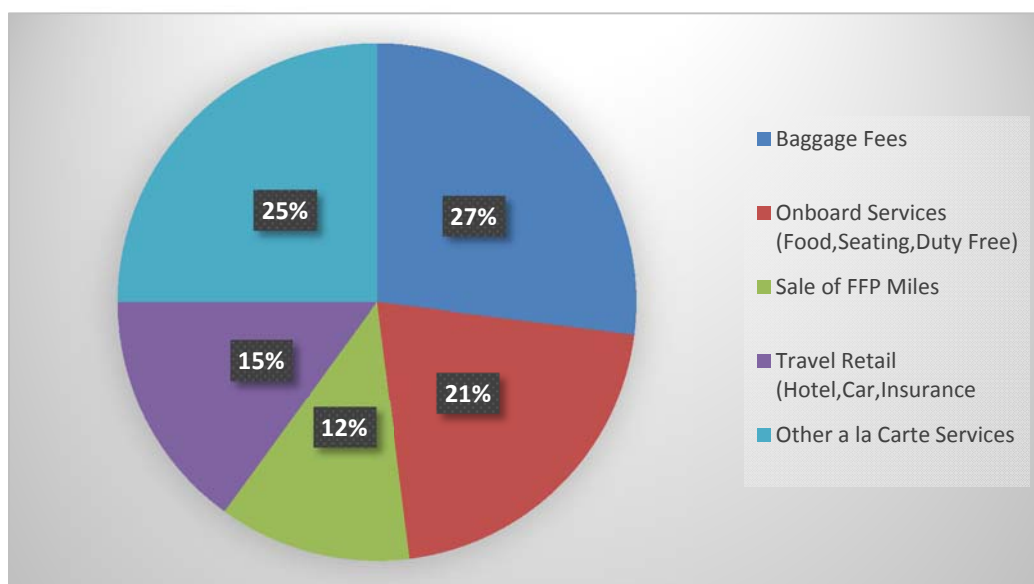


Fig.1 The Likely Distribution Of Ancillary Revenue For Legacy Carriers
Source: [14]

Figure 1. shows the likely distribution of ancillary revenue for legacy carriers outside the US for 2017. The distribution of revenue sources is different for US carriers, the sale of frequent flyer miles has a larger slice than other ancillaries. According to the figure, baggage fee is the most important source of ancillary revenues. It is followed by other a la Carte services and onboard services [14].

The importance of ancillary revenue endures to move forward. Back in 2007, the top 10 airlines generated \$2.1 billion. According to the financial results of 2016 (shown in Table 1) the top 10 airlines’ ancillary revenue have increased to more than \$28 billion. Examining the table in details reveals that most top 10 airlines obtain their ranking on the table thanks to revenue contribution of a frequent flyer program. This revenue is achieved by the sales of miles

to banks that issue an airline's co-branded credit card. However, easyjet and Ryanair are different; their ancillary revenue comes from a la carte fees and the commissions obtained from travel retail activities at the website, such as travel insurance sale and car hire bookings [15].

Tab. 1 Top 10 Airlines in terms of Total Ancillary Revenue (US Dollars)

Annual Results-2016		Frequent Flyer Program	A la Carte & Travel Retail Commissions
\$6,222,000,000	United	48%	52%
\$5,172,400,000	Delta	52%	48%
\$4,901,000,000	American	43%	57%
\$2,832,800,000	Southwest	80%	20%
\$2,100,771,801	Air France/KLM	33%	67%
\$1,982,255,301	Ryanair	None	100%
\$1,355,078,078	Easyjet	None	100%
\$1,349,812,715	Lufthansa	57%	43%
\$1,193,698,000	Qantas (excludes Jetstar)	90%	Limited disclosure
\$1,179,131,138	Air Canada	45%	55%

Source: [15]

3 METHOD

An online survey is one of the most appropriate method to examine traveler opinions and preferences [4]. [16] characterized online surveys by some major strengths such as speed, global reach, timeliness, flexibility, convenience, ease of data entry and analysis, and low administration cost. On the other hand, online survey has major potential weaknesses such as respondent lack of online experience, ambiguous answering instructions, privacy and security issues and low response rate.

Some of the expressions used in this study were adapted from the work of [4] with the authors' permission. In addition, some items were added to the survey by examining webpages of airlines operating in Turkey. Before the survey was posted, it was reviewed by field specialists (academics and airline marketing managers). The data collected by online surveys was analyzed using SPSS 15.0 package program.

According to statistics of [17], the number of international passengers using airports in Turkey was 71.244.179 for 2016. According to [18], the sampling size for $p=0.8$ and $q=0.2$ with a sampling error of 0.05 for a universe size of 100 million should be 245. In this context, the sample size of 304 is evaluated adequately.

The survey consists of nine questions. The survey was conducted through www.onlineanketler.com and the questionnaire was posted between 12.09.2017 and 31.10.2017.

3.1 Findings

Table 2. shows the reliability of the scale used in this study. Accordingly, the Cronbach's alpha value of the scale was found to be 0.829. In the literature it is accepted that

this value should be at least 0.70. This indicates that this scale is reliable. When the item-total statistics table (Table 3) is examined, it is seen that deleting any statement from the scale does not increase the Cronbach Alpha value of 0.829. This indicates that there is no need to remove any statement from the scale.

Tab. 2 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.829	0.830	17

Tab. 3 Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Hotel reservation	0.822
Seat assignment	0.825
Rent a car	0.824
Excessive baggage	0.826
Insurance	0.827
Priority boarding	0.818
Airport parking	0.823
Food and beverage	0.826
Airport transportation	0.820
Farelock	0.820
Tour packages	0.821
Internet on board	0.815
Airport lounge	0.814
Flexible ticket	0.820
Fast-track security	0.812
Personal equipment	0.820
In-flight entertainment	0.815

When the participants' travel purposes were examined, it was seen that the majority of participants fly for vacation, while business trips correspond to one-third of their travels, and one out of 10 travelers fly for visiting friends and relatives (Figure 2). Vast amount of respondents had chosen Turkish Airlines for their last flight and almost one-fifth of the respondents had flown with Pegasus Airlines (Figure 3).

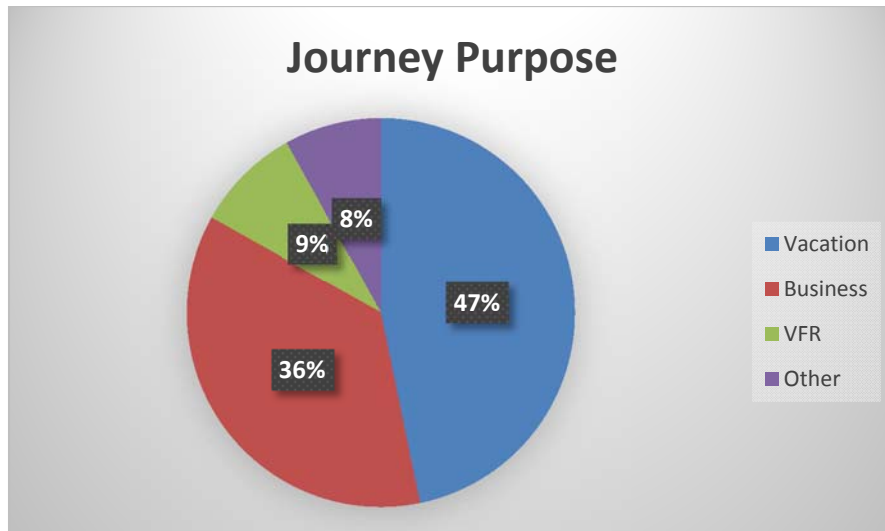


Fig. 2 Journey Purpose of Respondents on Their Most Recent Flight (compiled by the author)

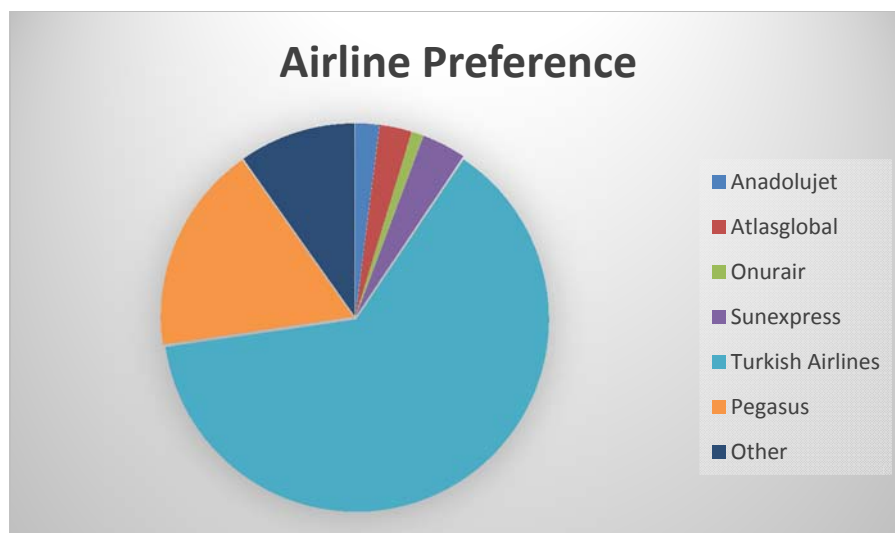


Fig. 3 Airline Preference of Respondents on Their Most Recent Flight (compiled by the author)

The demographic characteristics of the respondents revealed that 36% of the respondents were female and 64% were male. Figure 4. shows age distribution of respondents. This figure indicates that there was a normal distribution of ages with 72% of respondents in the mid 25-44 years category. According to figure 5, most of respondents had bachelor degree. This reveals that participants' education level is high. Figure 6 reveals that respondents' monthly income is well above the average of Turkey. The monthly minimum wage in Turkey is 1.603 Turkish Liras.

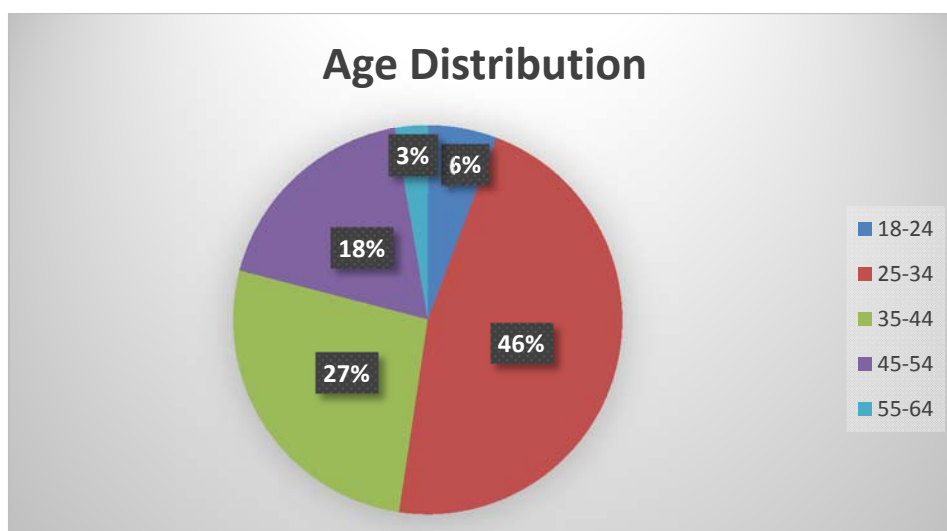


Fig. 4 Age Distribution of Respondents (compiled by the author)

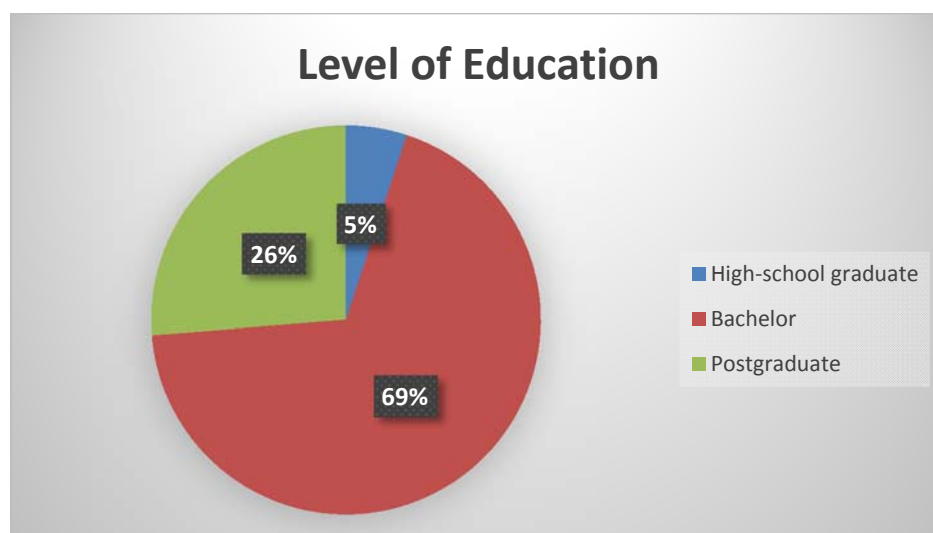


Fig. 5 Educational Background of Respondents (compiled by the author)

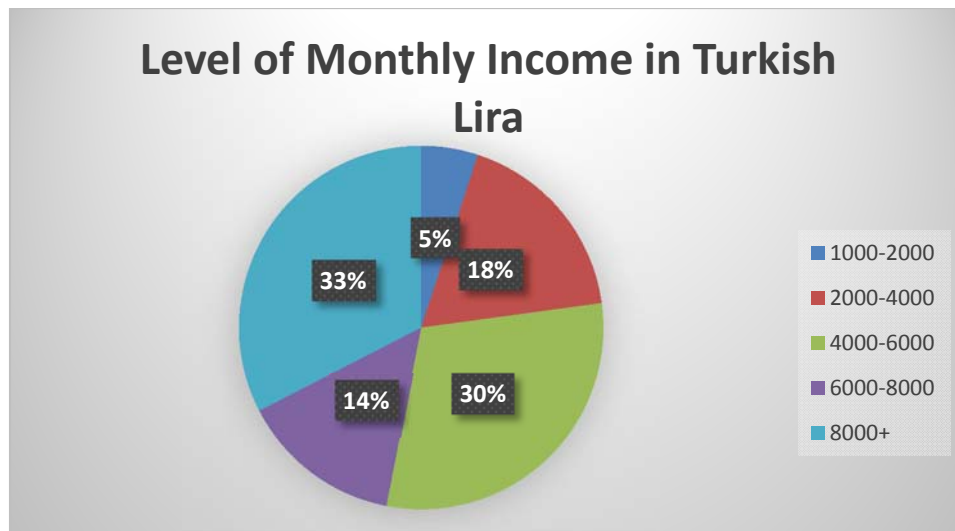


Fig. 6 *Monthly Income of Respondents (compiled by the author)*

Figure 7. reveals that more than half of the respondents declared they did not buy any ancillary product or service on their recent flight. Amongst respondents who bought ancillary products or services, seat assignment, food and beverage, and excess luggage were the most popular categories. On the other hand, priority boarding, Wi-Fi Internet onboard, farelock and flexible ticket were the least popular categories. All of these ancillaries are unbundled products and services.

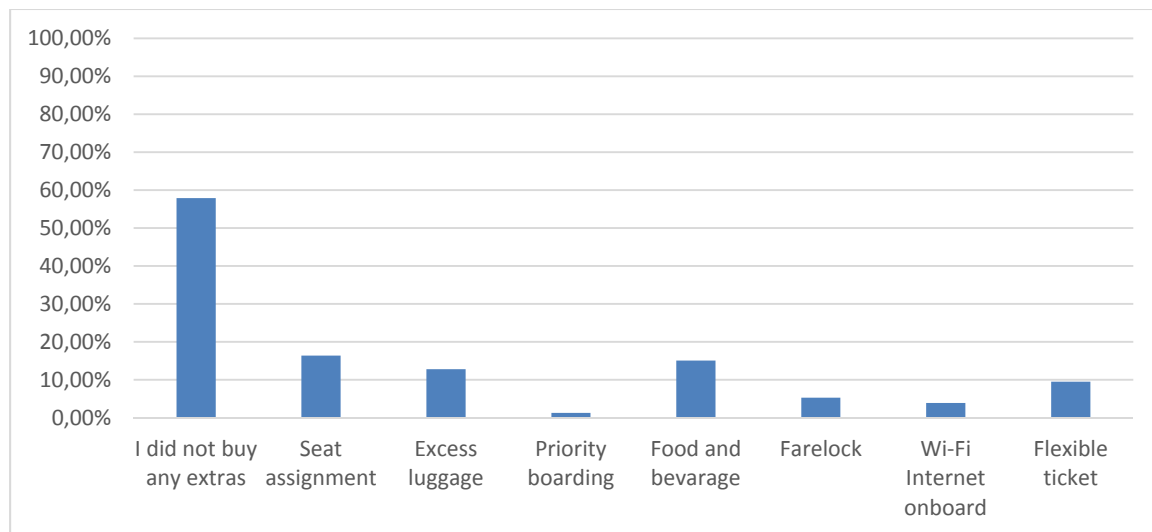


Fig. 7 *Ancillary Product and Services Bought By Respondents on Their Most Recent Flight (compiled by the author)*

Respondents were asked about whether they would consider purchasing a la carte ancillaries such as seat assignment, farelock, priority boarding (Figure 8). The majority stated that they are undecided in buying these products and services (excess luggage, food and beverage, farelock, and flexible ticket). On the other hand, very few respondents would be willing to buy priority boarding, Wi-Fi Internet onboard, in-flight entertainment, and personal

equipment. This reveals that scope for a la carte ancillary revenue is large if airlines can offer a la carte products and services to passenger by creating more value.

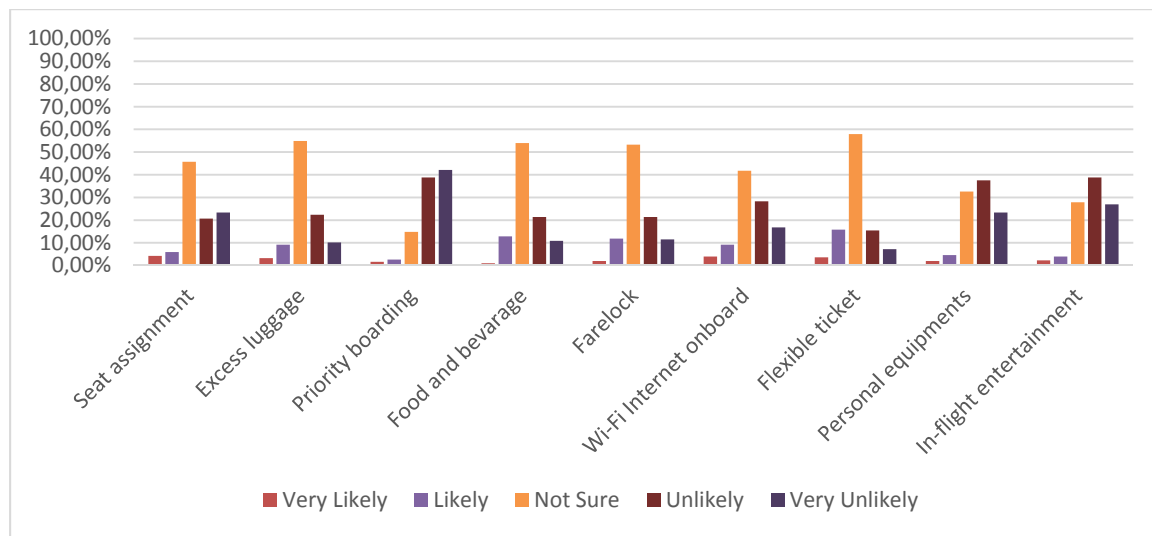


Fig. 8 Probability of Purchasing A La Carte Ancillaries (compiled by the author)

Respondents were asked about whether they would consider purchasing commission-based ancillaries such as hotel reservation, airport lounge, and airport parking (Figure 9). When it is compared to a la carte ancillaries, less respondents would be willing to purchase commission-based ancillaries. Especially, respondents do not consider purchasing hotel reservation, tour package, airport lounge and fast track security from airlines’ websites. On the other hand, respondents might purchase some commission-based ancillaries just as rent a car, travel insurance, airport parking, and airport transportation if airlines can personalize these ancillaries more and make more marketing efforts.

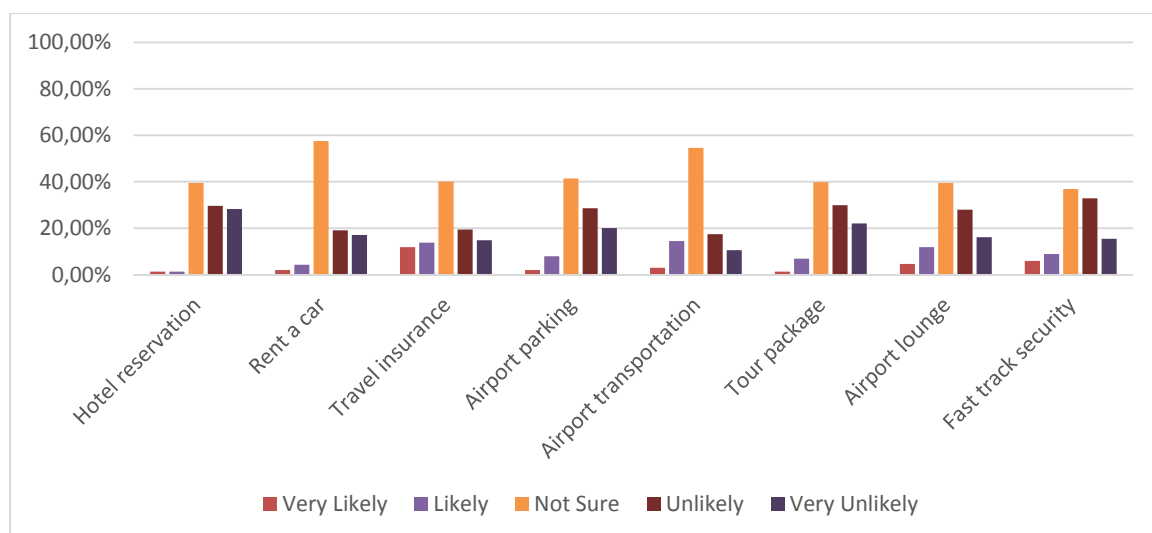


Fig. 9 Probability of Purchasing Commission-Based Ancillaries (compiled by the author)

According to the independent T test results, there is no significant difference between gender and probability of purchasing ancillaries. ANOVA (Analysis of Variance) tests were

conducted to determine whether the age, education and income level had effects on purchasing ancillary products and services. Based on the results of one factor analysis of variance, we found no significant difference in between the age and probability of purchasing ancillaries. Similarly, there was not found any significant difference between education and income levels of respondents and the probability of purchasing ancillaries.

3 CONCLUSIONS

Making profits in the airline industry is getting difficult year by year because of high fixed cost structure, strong unions, fluctuating fuel prices and low barriers to entry. Airlines have developed ancillary revenue strategy to survive in this tough environment. Recently, more and more airlines have unbundled their products and services, and have charged for them separately. Thanks to this strategy, airlines have generated significant revenue. For example, the top 10 airlines' ancillary revenue increased to more than \$28 billion in 2016.

In this study, to determine attitudes of international Turkish passengers towards purchasing ancillary products and services, an online survey was conducted. According to the survey results, most of respondents' journey purpose was vacation and majority of them had flown their last flight with Turkish Airlines. When asked whether respondents purchased any ancillaries before, it was revealed that majority (nearly 60%) of respondents did not purchase any ancillaries. The most popular ancillaries among Turkish international passengers are seat assignment, food and beverage, and excess luggage. On the other hand, Turkish international passengers generally do not prefer to buy priority boarding, Wi-Fi Internet onboard, farelock and flexible ticket.

Considering respondents' attitudes towards purchasing a la carte ancillaries, the majority of respondents are undecided in purchasing excess luggage, food and beverage, farelock and flexible ticket. However, a trace of respondents would be willing to purchase Wi-Fi Internet onboard, priority boarding, personal equipment and in-flight entertainment. This reveals that scope for a la carte ancillaries is large if these ancillaries are offered to passengers by creating more travel value for them.

As for commission-based ancillaries, less respondents would be willing to purchase these ancillaries from airlines' websites compared to a la carte ancillaries. Specifically, respondents are not willing to purchase hotel reservation, tour package, airport lounge and fast track security from airlines' websites. However, Turkish international passengers might purchase rent a car, travel insurance, airport parking, and airport transportation if airlines make more marketing efforts. Moreover, examining statistical relations between demographic characteristics of respondents and the probability of purchasing ancillaries revealed that there were no significantly statistical relations between them.

Results of the present study contradict with Peksatici (2016)'s paper both in terms of acceptance of ancillaries and relation between demographics and willingness to pay. This may due to different characteristics of the samples. This paper's findings regarding Turkish international passengers' intention to buy ancillaries show similarity with Kuyucak Sengur, Ustaomer and Uzgor (2017)'s findings.

The findings of this study is important to airline executives in Turkey. Increasing competition and challenging environmental conditions in the airline industry are driving airlines to develop new strategies. Airline managers should emphasize more on airline revenue generating strategies. Further researches might investigate airline ancillary product purchasing intention of passengers from different cultures comparatively.

References

- [1] Warnock-Smith, D., O'Connell, J. and Maleki, M., 2017, "An analysis of ongoing trends in airline ancillary revenues," *J. Air Transport Management*, 64, pp.42-54.
- [2] Belcombe, K., Fraser, I. and Harris, L., 2009, "Consumer willingness to pay for in-flight service and comfort levels: A choice experiment," *J. Air Transport Management*, 15, pp.221-226.
- [3] Garrow, L. and Mumbower, S., 2012, "Assessment of product debundling trends in the US airline industry: Customer service and public policy implications," *Trans. Re. Part A*, 46, pp.255-268.
- [4] O'Connell, J., & Warnock-Smith, D., 2013, "An investigation into traveler preferences and acceptance levels of airline ancillary revenues," *J. Air Transport Management*, 33, pp.12-21.
- [5] Wittmer, A. and Rowley, E., 2014, "Customer value of purchasable supplementary services: The case of a European full network carrier's economy class," *J. Air Transport Management*, 34, pp.17-23.
- [6] Cui, Y., Duenyas, I. and Sahin, O., 2017, "Unbundling of ancillary service: How does price discrimination of main service matter?," SSRN, <https://ssrn.com/abstract=2724138>.
- [7] Avram, B., 2017, "Ancillaries in the aviation industry: Importance, trends, going digital," *Expert J. Marketing*, 5(2), pp.53-65.
- [8] Leon, S. and Uddin, N., 2017, "Airline ancillary services: An investigation into passenger purchase behavior," *JTRF*, 56(1), pp.41-61.
- [9] Peksatici, Ö., 2016, "Ancillary revenue opportunities in Turkish domestic aviation market," *Int. J. Economics, Commerce and Management*, 4(1), pp.175-206.
- [10] Kuyucak Sengur, F., Ustaomer, T.C. and Uzgor, M., 2017, "A research on ancillary product buying intentions of domestic airline passengers in Turkey," *J. Management, Marketing and Logistics*, 4(4), pp.456-464.
- [11] Sengur, Y. and Kuyucak Sengur, F., 2017, "Airlines define their business models," *World Review of Intermodal Transportation Research*, 6(2), pp.141-154.
- [12] Sorensen, J., 2012, "The amdeus yearbook of ancillary revenue by ideaworks," <http://www.ideaworkscompany.com/wp-content/uploads/2012/08/2012-Ancillary-Revenue-Yearbook.pdf>
- [13] Wit, J. and Zuidberg, J., 2012, "The growth limits of the low cost carrier model," *J. Air Transport Management*, 34, pp.17-23.
- [14] Ideaworks 2018, "Airline ancillary revenue projected to be \$82.2 billion worldwide in 2017," <http://www.ideaworkscompany.com/wp-content/uploads/2017/11/Press-Release-123-Global-Estimate.pdf>
- [15] Sorensen, J., 2017, "2016 top 10 airline ancillary revenue rankings," <http://www.ideaworkscompany.com/wp-content/uploads/2017/07/2016-Top-10-Airline-Ancillary-Revenue-Rankings.pdf>

- [16]Evans,J. and Mathur,A.2005,“ The value of online surveys, internet research,“ *Internet Research*, 15(2),pp.195-219.
- [17]DHMI,2017,“Statistics,“
file:///C:/Users/adminpc/Downloads/ARALIK%20YOLCU%20(1).pdf
- [18]Yazıcıoğlu, Y. and Erdoğan, S. 2004,“ SPSS uygulamalı bilimsel araştırma yöntemleri,“ Ankara: Detay Publishing.