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COMPARISON OF AIR TRANSPORTATION SYSTEMS OF TURKEY AND SPAIN AS THE COMPETITORS IN TOURISM SECTOR

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ABSTRACT

The growth of air transportation in a country affects positively the development of other industries especially tourism. Turkey and Spain rank among the top countries in the world with their most developed air transportation and tourism sectors. In this study, the similarities and differences of air transportation systems of both countries and their dependency on tourism are examined. In this framework, the structure and the development process of Turkish and Spanish air transportation is revealed, then the future development trends of air passenger and air freight demands are estimated by using trend and regression analyses. Finally, the factors which may accelerate the development of air transportation and tourism sectors and the threats against the growth of these sectors are explored. The analysis results show that the tourism is crucial for the development of air transportation in both countries.

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INTRODUCTION

Air transportation is one of the pillars of our modern society and it has proved to be a driver of social and economic progress. Nowadays, air transportation is a major industry in its own right and it also provides important inputs into wider economic, political and social processes. Aviation provides the only worldwide transportation network, which is essential for global business and tourism and plays an important role in facilitating the economic growth, particularly in developing countries. According to the records of the year 2014, over three billion passengers a year and about 50 million tonnes of freight are carried by air, contributing to the world's GDP with about $606 billion. The productivity level of air transportation is 3.5 times higher than the other sectors (ATAG, 2014).

The rapid growth of air transportation in all around the world has been one of the most significant developments in transport services in recent years. Although there have been several social and economic crises, the demand tends to increase in a near future. During these years, all over the globe, the airline alliances has proliferated and the global carriers are engaging to achieve new routes and to lower the costs. Today, much of the world air transportation market is shared between several large global alliances.

The air transport industry's most important economic contribution is through its impact on the performance of other industries (catalytic impact) especially on tourism sector. By assisting and encouraging international tourism, air transport contributes to a sustainable development of the regions. In the countries such as Spain, Cyprus, Greece and Turkey, the contribution of air transportation and tourism to the national economy are much bigger than the other European countries. According to 2013 statistics of ACI Europe, Turkey and Spain are among the top five European countries in the number of employees directly working in air transportation sector (ACI, 2016). Turkey and Spain are the countries which have the biggest contribution of aviation and tourism sectors to the national GDP with the share of 7.1% and 5.9% respectively (Intervistas, 2015). The similar results can be seen in the volume of air passenger traffic and international tourist arrivals. According to the results of the year 2015, Turkey and Spain fall into top five European countries in the air passenger demand with 181 million and 206.6 million respectively (AENA,2016; Aerostat,2016). Both countries are also ranked among the world's top 10 international tourism destinations with 68.2 million (in 3rd

place) for Spain and 39.5 million (in 6th place) for Turkey in 2015 (UNWTO, 2016).

Although the performance of Turkish and Spanish tourism industries are analysed and compared by some researchers such as Özer, Latif, Sarıışık, and Ergün (2012), Madanoğlu Olsen, and Kwansa (2007) and Kozak (2002), only one study is found in the literature related to air transportation of both countries. Ülkü (2015) compared the efficiency of Spanish and Turkish airports for the years between 2009 and 2011. The analysis results indicate the higher average efficiency levels at Spanish airports, but private involvement enhances efficiency at Turkish airports. He claims that a higher private involvement and improvement of the airport network by closing some inefficient airports should be considered in order to increase the airport efficiency in both countries.

The aim of this study is to explore and to compare the air transportation market situation of Turkey and Spain. The amazing growth of the Turkish air transportation demand especially in recent years and the tourism competition between two countries, make the study an interesting topic concerning whether or not the Turkish air demand will evolve in a similar way of Spain or even surpass it in a near future. In this framework, the past years data is analysed and the future demand of both countries are revealed by using forecasting techniques. Finally, the strengths and the weaknesses of Turkish and Spanish air transportation systems are concluded by taking into account the results obtained from the previous analyses.

AIR TRANSPORTATION SYSTEM IN TURKEY

Turkey enjoys a strategic location, with the potential to play a pivotal role in regional and global integration. The important energy, trade and transport networks which connect west to east and north to south are keys to unleashing this potential (Oğuztimur & Çolak, 2013).

In aviation industry, which required advanced technology and characterized with unlimited qualities, the countries became the member of various organizations in order to closely follow up with the international aviation developments and to comply with the requirements of the age. During the past two decades, the world has experienced a deregulation movement in the aviation industries. Governments have recognized the benefits of competition in the market. After USA

deregulated its airline industry in 1978, it has signed over 90 open skies agreements with other countries since 1992. Concordantly, between the years 1987 and 1993, the European Union (EU) introduced three packages for reforms that almost fully deregulated the EU air transportation. Turkey has also followed up this trend in 2003. The industry was opened to competition by deregulating entry to market especially in the scheduled domestic flights (Çetin & Benk, 2011). Until 1983, Turkish Airlines (THY) as a state-owned company was the only operating airline in both the scheduled/unscheduled international and domestic flights, since the entry to the industry had strictly been impeded by the government. In parallel with the liberalization movements in the 1980s, Turkey restructured the airline industry by the Civil Aviation Law (Law No. 2920) enacted in 1983. The law unbundled the domestic airline industry of Turkey as the scheduled and unscheduled flights. This policy change was the first deregulatory initiative in the industry. However, while competition was introduced into the unscheduled domestic flights, THY remained the legal monopoly in the scheduled domestic flights. Even though 29 new firms entered to the industry after 1983, 22 of them left the market, because the unprofitable market conditions forced the most of new entrants into bankruptcy.

In the beginning of 2003, there were thirteen firms along with THY in the industry. However, the market conditions were still inadequate to trigger competition, to increase demand, and to attract investments in the industry (Çetin, 2016). Turkey successfully opened up its domestic airline market to competition via deregulation in 2003. Thus, new airline companies had the chance to enter the domestic market in which only one airline was previously operating. Deregulation in airline transportation suggests that restrictive regulations organizing airline transportation are either alleviated or totally annulled and that state's interference in airline transportation activities are reduced.

One of the most significant outcomes of deregulation is the "low cost carrier" model based on cost leadership strategy. Freedom of pricing resulting from deregulation is the most significant and fundamental factor playing a role in the emergence of this strategy. The low cost carriers emerged in the USA by the end of the 1970's, in Europe by the end of the 1980's and in Turkey in 2005 after having deregulated its domestic market in 2003 (Orhan & Gerede, 2013).

Turkish Airlines is one of the fastest-growing airlines in the world and the most profitable European carrier. From 2003 to 2014, the number

of passengers flying with Turkish Airlines increased by 450% from 10 million -5 million domestic and 5 million international to 55 million -23 million domestic and 32 million international- (Thomas, 2015). Apart from the Turkish Airlines, 13 airline companies based in Turkey actually continue their operations.

There are currently 117 aerodromes in Turkey, among which 55 airports are operated for international and domestic commercial flights. General Directorate of the State Airports (DHMI) established in 1984, is responsible for the operation of 49 state owned airports and their air traffic control and aeronautical communication services. Other 6 airports are operated by different private and government organizations. Aviation activities in Turkey are supervised and regulated by the Directorate General of Civil Aviation (SHGM), an establishment affiliated with the Ministry of Transport and Communication with a special budget (ICAO, 2013).

Istanbul-Atatürk is the fourth European airport for passenger traffic with 57 million passengers in 2014. Remarkably, Istanbul Sabiha Gökçen Airport also joined the European Top 20 airports in 2014, ranking 18th with 23.5 million passengers, and its growing trend seems to continue. In parallel with the rapid growth in air transportation demand, the third Istanbul international airport which will be one of the biggest in the world with 6 Runways, 4 Terminals and 150 million passengers a year, is now under construction. The first phase that focuses on a capacity for 90 million passengers should be completed by late 2017. Antalya Airport which is managed by FRAPORT- Germany was also one of the top 20 European airports for passenger traffic in 2014 (Thomas, 2015).

AIR TRANSPORTATION SYSTEM IN SPAIN

Beginning from the year 1988, air transport deregulation in Europe was introduced relatively by taking its first timid steps concerning the defence of competition, the fares and the bilateral air transport agreements (Rey, 2003). Since 1993, airlines in all European Union (EU) member states are licensed under similar conditions and entry barriers have been lifted to the extent that market access is essentially free and rate making in intracommunity air transport is now unrestricted. Today, EU completed its transformation into a single European market. The demand of this market makes it the largest domestic market in the world and consequently creates an enormous challenge for the European airline

industry (Scharpenseel, 2001). The Spanish national company Iberia as the flag carrier was also affected from the deregulations without any exception. In this framework, they revised their price and domestic market policy. Iberia joined the OneWorld airline alliance along with American Airlines, British Airways, Air Lingus, LAN Chile, Cathay Pacific, Finnair and Qantas in 1999 before its privatisation process was completed in 2001. Iberia Airlines merged with British Airways creating the International Airlines Group (IAG) in 2011, although each airline would continue to operate under its current brand.

Between 1993 and 1997, the competition within the Spanish market was limited. The entry of foreign companies was restricted until 1997, after which entry was open to any company from any country in the European Community. At present, Iberia is the prime handling operator for all airports in Spain, with 250 airline companies as the customers. Finally, the airlines are faced with the problems in gaining access to time slots, because of the traditional monopoly of Iberia. The effects of airport congestion also heightened these inconveniences. In spite of the limitations, the companies entered to the market in Spain between 1989 and 1995 at a rate faster than the other European countries. The air transport deregulation was clearly identifiable and its positive effects were seen especially in Spanish domestic market. New companies have secured a share in the market, and, in spite of the fall experienced in Iberia's market share, its volume of traffic continued to increase (Rey, 2003).

The global economic crisis witnessed in late 2007, affected the development of air transportation sector such in all other industries in Spain and the growth of air transport industry was in steady state until 2013. Although Spanish air transportation market has proved to be very sensitive to external and internal crisis, the latest data is showing that air demand will continue to increase and that will soon acquire the level before the economic crisis (AENA, 2016).

Iberia Airlines founded in 1927, is the leading airline today between Europe and Latin America. It operates 600 flights each day to 124 destinations in 48 countries, with a fleet of 135 aircraft (IAG, 2017). Apart from Iberia, there are 29 Spanish airline operators at present. The Spanish airline companies carried 50.8 million passengers in 2015 (Euromonitor Int., 2016).

Spain is the largest domestic air transport market in the European Union with 67.9 million passengers and ranked as third position in terms of total passenger traffic with 230.2 million in 2016 (AENA, 2016; Aerostat,

2016). The traffic results for 2016 show a 11% demand rise compared to 2015. According to the 2016 statistics of Airport Council International, Madrid and Barcelona airports with 50.4 and 44.1 million passengers are ranked as sixth and seventh busiest airports in Europe after Istanbul Ataturk.

High speed railway (HSR) is a significant source of competition for the air transportation sector in Spain as well as Europe. The most prominent case in Spain is the introduction of HSR along the Madrid-Sevilla route in 1992 which reduced the airlines' share of travel along this route from 40% to 13%, while the railways' increased from 16% to 51% (Givoni, 2006). As of 2010, there were three additional routes along which HSR operated. Actually, Spain has the second largest HSR network in the world, just behind China. Future plans for railways are conducted in the direction of cooperation and mode integration with the air transportation and airports rather than competition.

The Spanish air transportation is organized by the Ministry of Public Works and Transport. The ministry delegates the air transportation tasks to General Directorate of Civil Aviation (Dirección General de Aviación Civil- DGAC) and to Air Security State Agency (Agencia Estatal de Seguridad Aérea- AESA). The main task of AESA is to implement the management, supervision and inspection functions related to the air transportation safety. AENA as an airport authority, was established in 1991 for the management of Spanish airports and air navigation services. AENA carried out a full and comprehensive modernisation in Spanish airports and air navigation services. Because of the adaptation of airport facilities according to the Schengen Agreement, the existing infrastructures in airports were refurbished. The Barcelona Olympic Games and the Seville Universal Exposition in 1992, also caused major infrastructural modifications in hub airports and the construction of the new terminals in Málaga and Jerez airports. At the beginning of the new century, AENA took charge of three new airports in Colombia and twelve in Mexico and one in the United Kingdom apart from 46 national airports.

COMPARISON OF TURKISH AND SPANISH AIR TRANSPORTATION

The historical development of air passenger and air freight traffics in Turkey and in Spain between the years 1990 and 2015 are given in Figure 1 and Figure 2. The demand growth generated by Turkish and Spanish air

transportation sectors, between the years 2002-2015, are also compared in Table 1. This period is particularly selected in order to demonstrate the effects of deregulations on the evolution of Turkish air transport industry. As seen from Figure 1 and Table 1, although the number of passenger carried by air in Spain are more than those in Turkey, the growth rate of Turkish air passenger demand is faster. The number of domestic and international passengers rose from 33.5 million to be more than 181 million with a 441% growth rate and the number of airport open to commercial traffic doubled from 26 to 55 between the years 2002-2015.

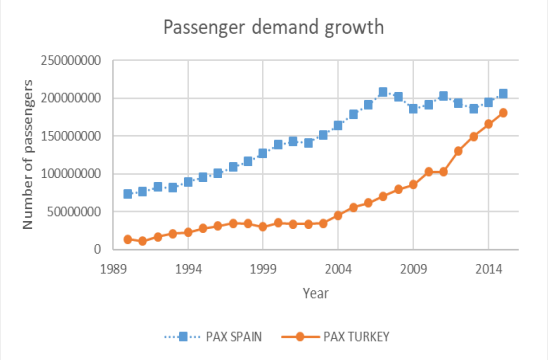

Figure 1. *The growth of Turkish and Spanish Air Passenger Demand (AENA, 2016; DHMI, 2016)*

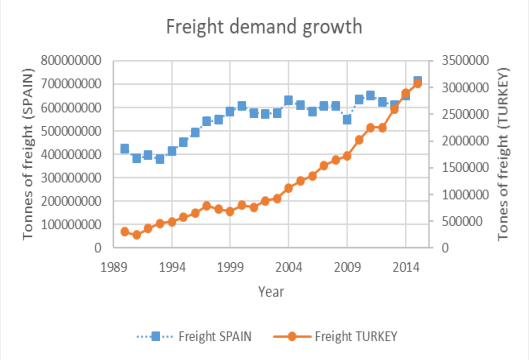

Figure 2. *The Growth of Turkish and Spanish Air Freight Demand (AENA, 2016; DHMI, 2016)*

Table 1. *Air Transportation Demand in Turkey and Spain between 2002-2015*

	Turkey			Spain		
	2002	**2015**	**% Growth**	**2002**	**2015**	**% Growth**
Number of Commercial Airport	26	55	112	42	46	9.5
Domestic Air Passenger Traffic (million)	8.5	97.4	1046	58.1	62.1	6.9
International Air Passenger Traffic (million)	25	84	236	83.1	144.5	73.9
Total Air Passenger Traffic (million)	33.5	181.4	441.5	141.2	206.6	46.3
Air Freight Traffic (tonnes)	880	3,060	247.7	575,826	714,599	24.1

Sources: SHGM (2016), DHMI (2016), and AENA (2016)

Before the economic crisis that affected Spain in 2007, the growth rate of air transportation demand was linearly positive. The number of passengers and freight carried by air increased 184% and 43% between the years 1990-2007 (AENA, 2016). Since then, the market is trying to recover its upward trend and 2007 results. Although Spain is in the first place in terms of domestic passenger traffic among European Union countries with 62.1 million passengers in 2015, Turkey received 57% more domestic traffic than Spain with 97.4 million passengers for the same year, as seen from the Table 1. After deregulations witnessed in 2003, Turkish domestic passenger traffic boomed with an average annual growth rate of 80%, and more than a half of total air passenger traffic in Turkey actually belongs to domestic air transport (DHMI, 2016).

As depicted in Figure 2, there is a huge difference between the air freight statistics of Spain and Turkey. As well as the air freight volume of Spain is about 233 times bigger than the Turkish one with 714,600 tonnes in 2015, Spain does not fall into top five European Union countries in terms of air freight transportation. These results also show that Turkish air freight transportation is not at the expected level although it has been increasing exponentially.

The total economic contribution of air transportation for both countries, including the support of tourism sector, are €44 billion for Turkey and €60 billion for Spain and their share in national GDP are 7.1% and 5.9% respectively according to 2013 results (Intervistas, 2015).

Table 2. *Brief Summary on Evolution of Air Transportation in Turkey and Spain*

	Turkey	**Spain**
Beginning of Aviation Activities	1912	1909
Beginning of Air Transportation	1933	1927
Creation of the Civil Aviation Authority	1912	1910
Deregulation Dates	1983 and 2003	1993
First Civil Aviation School	1986	1974
Number of Airlines	13	30
Number of Aircraft	485	474
Number of Direct Employees	168.600	146.500
Gross Domestic Product (GDP)	733.642 million USD	1.199.715 million USD
Annual Average Growth Rate of GDP (last 10 years)	3,81%	0,85%
Number of Tourists	41.617.531	68.215.225
Airplane Ticket Average Fare (€/100km)	11,90	9,86

Sources: SHGM (2016), DHMI (2016), AENA (2016), TÜİK (2016a), INE (2016), and WORLD BANK (2016)

Table 2 is prepared from different sources to compare the evolution of air transportation industries of both countries. The development milestones, important dates and statistics are summarized in this table. As seen from the table, the beginning of aviation activities and the development of those activities with the foundation of the Aviation Authorities in both countries occurred almost at the same time, just with some years advance for Spain. Nevertheless, the most important change in that evolution process was the introduction of deregulations. Even though the first Turkish deregulation dates back into 1983, the successful and the most effective one was in 2003, which defers from the Spanish case with 10 years delay. The deregulations surely affected the evolution of the market in both countries.

Since the Spanish air transport market was opened to competition 10 years before the Turkish case, the number of airlines based in Spain is more than those in Turkey and the ticket prices are cheaper in Spain concordantly. On the other hand, Turkey has more aircraft registered than Spain; this may be due to a remarkable growth that Turkish Airlines has experienced in the last years.

FUTURE TRENDS IN TURKISH AND SPANISH AIR TRANSPORTATION

Methodology

The future traffic demands of both countries are analysed by using the historical data of Turkey and Spain between the years 1990 and 2015. The data on air passenger and freight demands, tourist arrivals, population and GDP/capita used in the forecasting analyses for Turkey was obtained mainly from the Turkish Statistics Institute (TUIK) and the General Directorate of Turkish Airports (DHMI) while the statistics for Spain are provided from the different Spanish statistic sources such as INE (National Statistics Institute), AENA (Spanish Airports and Air Navigation Authority) and Institute of Tourism Studies.

Trend and regression analysis are chosen as the quantitative forecasting techniques. The trend analysis technique is used to predict the future changes based on the past data and the regression analysis is used to model the relationship between a dependent variable and one or more predictor variables. The statistics of the population, the GDP per capita and the tourist arrivals are considered as the predictors for the same

period to explore the impact of related variables on air transportation demand.

The figures given (Figure 3, 4 and 5) display the growing rate of the predictors used in the forecasting analyses for both countries. As depicted in Figure 3, Turkish population has been experiencing an incredible increase in the lasts years. Since 1990, the population in Turkey and Spain increased around 30% and 15% respectively. The growth rate of Spanish population has been suffering from the decrease especially in the last years.

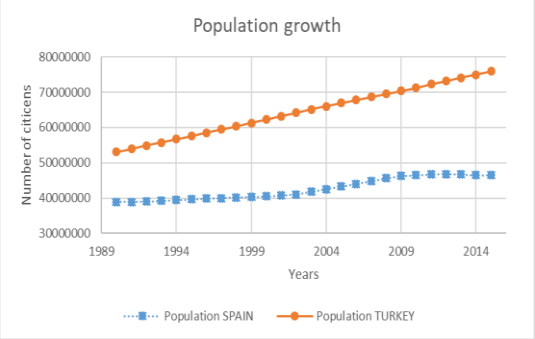

Figure 3. *The Population Growth of Turkey and Spain (World Bank, 2016)*

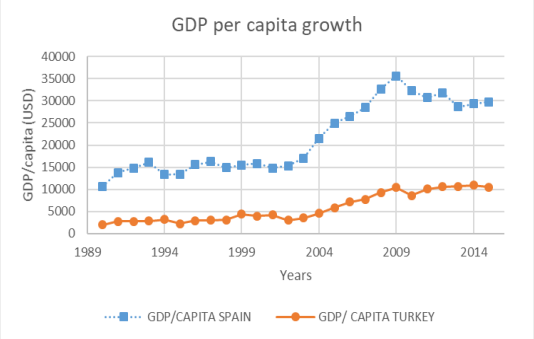

Figure 4. *The Growth of GDP per Capita in Turkey and in Spain (World Bank, 2016)*

As seen in Figure 4, The Spanish GDP used to have a great growing rate with 60% from 2001 to 2008. After 2009, since the economic crisis affected Spanish economy, the GDP in 2015 was settled in a constant value or is very slowly recovering. In the Turkish case, the GDP is also affected from the global economic crisis but it did not experience a tremendous drop compared to the Spanish GDP. A slow but continuous growth has occurred in Turkish GDP. Conversely, between the years 1990 and 2015, the growth rate of Turkish GDP per capita is 85% while the Spanish GDP per capita is around 200%. According to 2015 statistics, the GDP per capita in Spain is $30,000 which is three times bigger than that in Turkey.

Spain and Turkey are important touristic destinations in the world. According to *Economic Impact 2016* reports of World Travel and Tourism Council (2016a; 2016b), the tourism in Turkey represents a 5% of the total GDP in direct contribution and 12.9% in total, while in Spain, the tourism importance rise until the 5.8% of total GDP in direct contribution and 16%

in total. Tourism growth rates between 2000-2015 periods are approximately 400% for Turkey and 140% for Spain as shown in Figure 5.

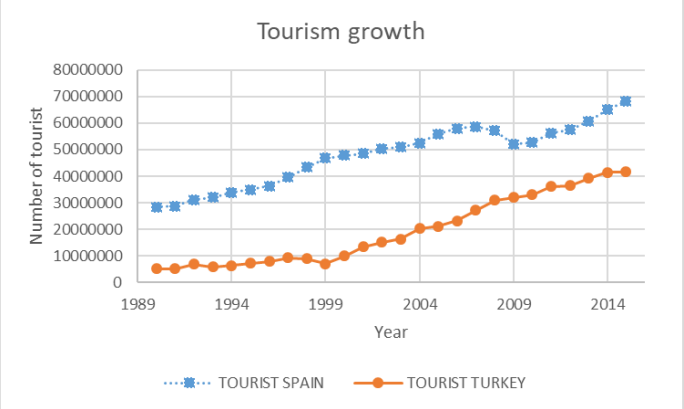

Figure 5. *The Growth of Tourist Arrivals in Turkey and in Spain (Ministry of Tourism and Energy (2016) for Spain and TÜİK (2016b) for Turkey)*

Relying on these past data from both countries, SPSS Statistics 23 for the trend analyses and EViews 9 modelling tool for the time series regression analyses are used in this study. The data tables used in the analyses are prepared in the Microsoft Office Excel 2013. ARMA (Autoregressive Integrated Moving Average) Model which is one of the basic tools for time series modelling is used in this study. If the resulting time series show a strong trend (there is a growth in the data used in this study), then the process is clearly not stationary, and it should be differenced at least once. In this framework, the Augmented Dickey Fuller Test (ADF), which is one of the unit root tests, is used to check the stationarity of the data set related to air passenger and freight demand, population, tourism and GDP per capita. Plotted graphs which are seen from Figure 1-5 and unit root test results show that the data are not stationary at the level. To remove trend in related data, second order lag length has been selected as an optimum test for all variables by using VAR (Vector Auto Regressive) Lag Order Selection Criteria.

Findings

Mainly, four analyses are performed to explore the impact of three predictors on dependent variables: air passenger and air freight demands

in Turkey and in Spain. The analyses results show that there is a strong relationship between air transportation demand and tourism for both countries. The GDP per capita is found as a predictor only for the air passenger demand in Spain. On the other hand, it is determined that the population is not an appropriate predictor for the future development of air passenger and air freight demands in both countries. In this condition, second analyses for each dependent variable are performed by taking only the appropriate predictors into consideration and the results obtained from the second step analyses are given in Table 3. The following equations are obtained for each dependent variable (TR stands for Turkey, and SP stands for Spain):

Passenger demand (TR)= 3.1588 TOU – 2.70E+6 (1)

Passenger demand (SP)= 3.0425 TOU + 2076.380 GDP – 4.1594E+7 (2)

Freight demand (TR) = 0.0567 TOU + 9.8259E+4 (3)

Freight demand (SP) = 7.6504 TOU + 1.89E+08 (4)

Table 3. *Second Step Analyses Results for Dependent Variables*

Dependent Variable	**Predictor**	**Coefficient**	**Std. Error**	**t-Statistic**	**P**
Air Passenger (TR)	Tourism (TR)	3.158791	0.207530	15.22091	0.0000
	C	-2700912.	4375284.	-0.617311	0.5434
	R^2	0.913275			
	Adjusted R^2	0.909333			
Air Passenger (SP)	Tourism (SP)	3.042469	0.204424	14.88316	0.0000
	GDP/capita (SP)	2076.380	276.1525	7.518962	0.0000
	C	-41594171	6248040.	-6.657155	0.0000
	R^2	0.982614			
	Adjusted R^2	0.980958			
Air Freight (TR)	Tourism (TR)	0.056691	0.002354	24.08288	0.0000
	C	98259.13	49628.81	1.979881	0.0604
	R^2	0.963454			
	Adjusted R^2	0.961793			
Air Freight (SP)	Tourism (SP)	7.650349	0.673989	11.35085	0.0000
	C	1.89E+08	32059031	5.890868	0.0000
	R^2	0.854152			
	Adjusted R^2	0.847522			

As seen from Table 3, the value of the coefficient of determination (R^2) changes between 0.84 and 0.98 in the analyses performed. This means

that the variances of the passenger and freight demands are strongly predictable by the appropriate variables.

Trend analysis is similarly used for the estimation of air passenger and air freight demands in Turkey and in Spain. As depicted in Figure 6, the forecasting results related to next ten years (2016-2026) show that the Turkish air passenger demand will grow approximately 100% with 364 million while Spanish air passenger demand will only grow 28% with 265 million in next ten years. The equations given below can be used for the prediction of yearly values of air passenger demand in Turkey and in Spain.

$$Passenger\ demand\ (TR) = 1.6578E{+}7\ year - 3.3221E{+}10 \quad (5)$$

$$Passenger\ demand\ (SP) = 5.3292E{+}6\ year - 1.0532E{+}10 \quad (6)$$

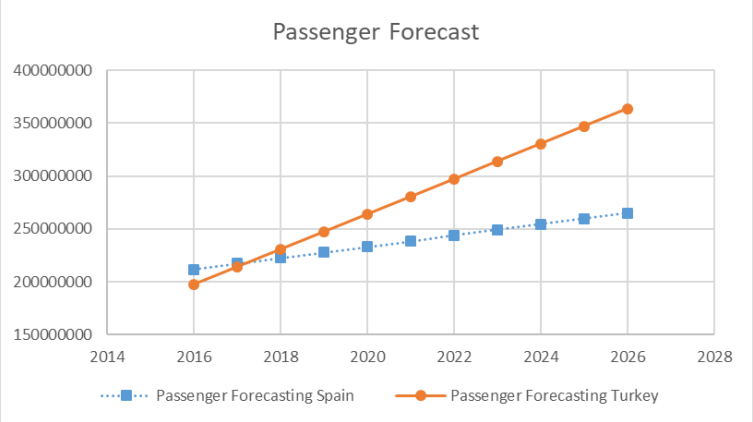

Figure 6. *Forecasting Results for Turkish and Spanish Air Passenger Demand*

Forecasting results covering 2016-2026 periods for air freight demand are demonstrated in Figure 7. Although the Turkish air freight traffic increases exponentially, it is not enough to catch Spanish air freight volume in near future because of the huge difference in their air freight volumes. Equation 7 and Equation 8 can be used to calculate yearly estimation of air freight volumes of Turkey and Spain.

$$Freight\ demand\ (TR) = 2.8397E{+}4\ year^2 - 1.1421E{+}8\ year + 1.1483E{+}11 \quad (7)$$

$$Freight\ demand\ (SP) = 1.1595E{+}7\ year - 2.2649E{+}10 \quad (8)$$

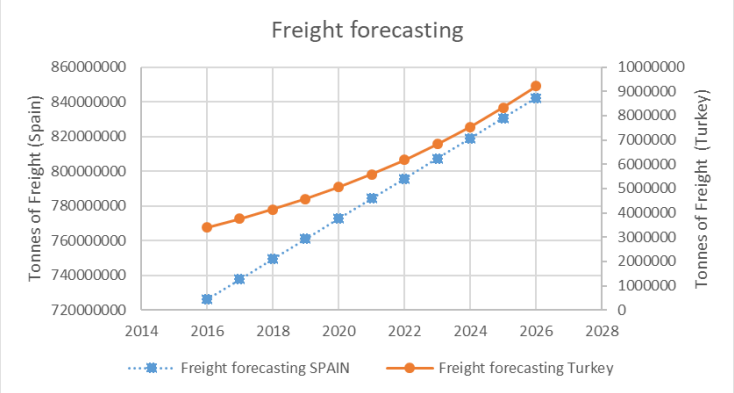

Figure 7. *Forecasting Results for Turkish and Spanish Air Freight Demand*

By using these equations, the estimated growth rates of air freight demand are found to be approximately 200% with 9000 tonnes in Turkey and 18% with 840,000 tonnes in Spain for the next ten years.

Results

Historical data of both countries confirm that deregulations and the global economic crisis are the prime factors affecting the development of air transport industry. The analysis results reveal that the air passenger traffic in Turkey has been developing faster than that in Spain. Especially, the amazing growth in domestic air passenger traffic after removal of the entry barriers in domestic market with deregulations in 2003 may be the main reason for that increase in total traffic. The year in which the Turkish air passenger demand will catch the Spanish one, can be found by equalizing Equation 1 and Equation 2. According to the calculation results, it is estimated that the air passenger traffic in Turkey will overcome the Spanish air passenger demand in 2018.

Although the air freight demand in Turkey has been growing exponentially, it seems impossible to catch the Spanish statistics in mid and long term. Despite its modest share in global trade in terms of tonnage and tonne-kilometres with less than 1%, air freight accounts for 35% global trade value. As well as, the observed growth pattern in air freight transportation is not identical for all airlines, European airlines as such in Turkey and Spain, have performed noticeably less well than their U.S., Asian and Middle-Eastern counterparts (Merkert, Voorde, & Wit, 2017).

Although GDP and population are considered in literature as the explanatory variables for the development of air transportation, it is not

determined a strong impact of population on Turkish and Spanish air transportation. On the other hand, the results obtained from the analyses reveal that there is a strong relationship between the air transportation demand and the international tourist arrivals. Tourism is a driving factor for air travel. Developments in tourism, especially new forms of tourism and new destinations, also affected the nature and the volume of air transport demand.

CONCLUSION

Air transport is the main form of transport to many tourist destinations. In some countries, it constitutes up to 100% of the international tourism arrivals such as Japan, Taiwan, Australia and New Zealand. The availability of cheap air transport can also be considered as one of the main driving forces in international tourism growth (Bieger & Wittmer, 2006).

Spain and Turkey are the most important and competitive touristic destinations among other European countries. Spain as the third country in the world by the number of tourist arrivals and also receipts, leads the Travel and Tourism Competitiveness index published for 136 countries by the World Economic Forum (AENA, 2016). The presence of low-cost carriers helps foreign tourists to decide and to spend time in Spain due to the low prices offered by these carriers. On the other hand, all-inclusive package system as a marketing strategy offered by tourism agencies with affordable prices brings a competitive advantage to Turkey. This integrated structure including accommodation, travel, food and beverages provides flexibility and convenience to the travel agents and the tour operators in their marketing efforts (Ozturk & Niekerk, 2014). The insufficient international railway and road connections in Turkey increase the importance of air transportation especially for tourism industry.

Emerging markets, led by Asia, Europe and the Middle East, continue to grow faster than the global average. Since Turkey is attractively located between Europe and Asia, Turkish airline companies may benefit from its strategically valuable geographic position and Istanbul's hub capability (Acar & Karabulak, 2015).

Conversely, some events encountered in both countries threaten the development of air transportation and tourism industries. Due to the economic crisis that hit Spain in 2008, the air transportation sector was

severely affected and is still trying to recover its upward trend. Before the global economic crisis, the construction of new airports was planned to meet the growing demand in Spain. Most of these new airports were operated with very low traffic values and some of them were never opened. This situation led to non-profitable and wasted airport investments from the government budget.

The major competitor against air transportation in Spain for medium range distance is the high speed train. The existence of a well distributed and well-connected railway infrastructure between the most important Spanish and other European cities enabled high speed train to become one of the most important competitors for air transportation market.

The rapid growth in air transportation demand necessitates the extension of the airports to increase their capacity. Therefore, the development process of airports defined in the airport master plans should be taken into consideration in the urban plans prepared by local municipalities. The insufficient coordination between the civil aviation authorities and the municipalities in Turkey seems to be a constraint for the development of air transportation. The existing situation of Istanbul Atatürk Airport is a good example for this inconvenience. Since the urban plans prepared for Istanbul did not cover the detailed integration of the airport and its surroundings, growing settlements around the airport did not allowed expansion of its facilities (Saldıraner, 2013).

The political situation in some Middle East countries, the conflicts witnessed in the southern-east part of Turkish borders, and the political crisis between Russia and Turkey arising from the shooting down the Russian fighter aircraft are the most important threats for the development of air transportation and tourism in Turkey. The terrorist attacks and the explosions occurred in Turkish major cities will decrease the attractiveness of Turkey for tourism concordantly. The effects of this chaotic situation began to appear in 2016 with 4,5% decrease in air passenger demand (DHMI, 2016). The number of tourist arrivals in Turkey between January-November 2016, similarly decreased by around 31% compared to the same period of the previous year according to the statistics of the Ministry of Culture and Tourism (2016).

It is obvious that the air transportation industry is very sensitive against the economic and political crises. Nevertheless, Turkish air transportation and Turkish tourism correspondingly, will rapidly recover

their desired development trends, if the problems mentioned above can be solved in short term.

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