

## Transformation of a legacy carrier- a case study of Turkish Airlines

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### Abstract

This study examines the metronomic rise of Turkish Airlines into a global carrier in the period following domestic deregulation and part privatisation. Using a comparative assessment of the carrier's network and its competitive strategies during the ten year period up to 2011-12 it was found that Turkish Airlines now benefits from considerable network, cost, service and brand advantages over competing European and to a lesser extent Middle-Eastern airlines. Its network operation based in Istanbul Ataturk airport enjoys strong geographic and demographic advantages, which enable it to optimise the use of its large and young short-haul fleet between a significant number of domestic and international points. This study has important implications for partially or fully state owned carriers as to how to gain competitive advantages in an increasingly open and liberal airline industry

*Key words:* Competitive advantage, Turkish Airlines, Network development

### 1. Introduction

Turkish Airlines (TK) was founded in 1933 as a state-owned enterprise commencing operations with a fleet of 5 aircraft with a total seat capacity of just 28 (TK, 2006). After the Second World War, Turkish Airlines benefitted from the post-war US assistance programme which gave the carrier an upgraded fleet of Douglas DC-3s. Its network scope was primarily domestic until the 1960s when its focus changed to international operations, in part due to a minority stake (6%) help by BOAC (British Overseas Airways Company) and started to operate a combination of Viscount, Fokker and later McDonnell Douglas and Boeing jet aircraft. The carrier's financial struggles commenced in the 1980s and ran through to the early 1990's partly as a result of its reputation for delays and a sub-standard safety performance. The country was also

plagued by inflation at the time which made it difficult for the carrier to raise sufficient capital to purchase aircraft (International Directory of Company Histories 2006). Political intervention as a result of continued state subsidy was also hindering the formation of a coherent and sustained competitive strategy at Turkish Airlines in the years preceding domestic deregulation and further privatisation (from 2003 onwards), which was partly down to the political influence of the government linked labour union – the Turkish Civil Union of Aviation (Yeditepe University 2010). This type of experience was not unique but mirrored by the experiences of many other state-owned carriers at the time, as detailed in Doganis (2006).

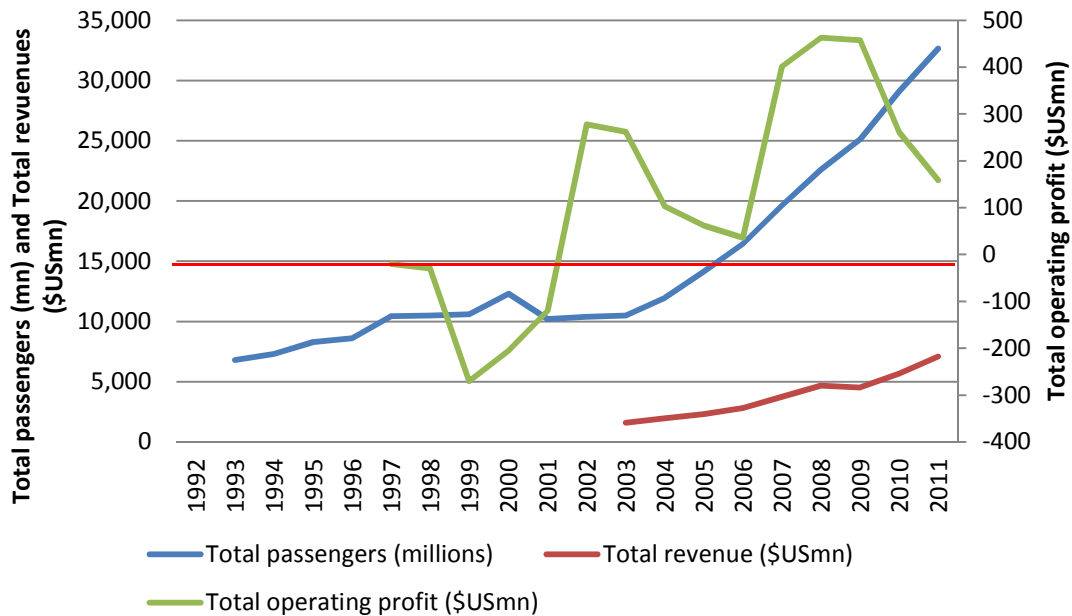
The privatization activities of the company dated back to the 1990s. With the incentive of encouraging productivity<sup>1</sup> and raising capital (Republic of Turkey Privatisation Administration, 2012), the government organised an IPO (Initial Public Offering), which was held in 1990 with 1.83% of the company's shares being offered to the public. Then two SPOs (Secondary Public Offerings) were held in 2004 and 2006, with the share of the government's ownership in Turkish Airlines falling below 75% and 50% respectively. As a result of this privatization process, the company ceased to be a state enterprise by May 2006 (TK, 2008) with further pushes for efficiency and productivity being among the main drivers for change.

Figure 1 shows that Turkish Airlines has experienced tremendous growth, particularly after 2003. The total number of passengers it carried increased from 10.4 million in 2003 to 32.7 million by 2011 with an combined annual growth rate of 15.4% - far outpacing the world average of 6.9% (ICAO, 2011; Turkish Airlines 2012). In recent years, Turkish Airlines has quickly risen to become a new global challenger in the airline industry. In addition to its outstanding traffic growth, Figure 1 shows that TK has consistently achieved operational profits since 2002. This represents a successful turnaround given the loss making performance of the carrier in the preceding five years.

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<sup>1</sup> At this time the airline's fleet doubled in size while the workforce stayed at around 8,000 showing some early increases in productivity as a result of the initial stages of privatisation aircraft (International Directory of Company Histories 2006).

**Figure 1:** Turkish Airlines Total Passengers, Revenues and Operating Profits



Source: Turkish Airlines Annual Report Presentations (2012) and FlightGlobal (2012)

As can be seen in Figure 1, the company’s total operational profit boomed rapidly in 2007 and 2008. According to Air Transport World (ATW) statistics, the carrier was ranked 25<sup>th</sup> in global net profits in 2007, but this quickly improved by reaching 4<sup>th</sup> position in 2008 and 6<sup>th</sup> by 2009 (ATW, 2008; ATW, 2009; ATW, 2010). By 2012, it carried more than 39 million passengers with 202 aircraft (TK 2012). Discussions at aviation conferences are forecasting that it could be Europe’s largest full-service airline by 2020. An insight into its relentless growth is displayed by examining the data during the economic downturn in 2009 as the number of passengers across the whole air transport industry dropped by 3.5%, while it was more accentuated across the members of the Association of European Airlines (AEA) which decreased by 5.8%, while Turkish Airlines witnessed an 11% increase in passenger numbers. Since 2003 the company has expanded rapidly as its passenger Compound Annual Growth Rate (CAGR) recorded more than 15% - becoming Europe’s fastest growing airline. Concurrently, Turkish also began differentiating and enhancing its products and services which were recognised in 2011 when it achieved the Skytrax award for Best Airline in Europe – it was now becoming increasingly evident that European

incumbents were now facing a new threat. Although up to 2003 the carrier had played an insignificant role in the aviation market, it is now becoming a major player in the industry. Thus, this paper will analyse the development of Turkish Airlines, particularly after 2003, as well as the competitive advantages of the company over its competitors.

The rise of Turkish Airlines provides an excellent case study of how a loss-making legacy carrier can be transformed to a highly profitable global player within a relatively short period. The purpose of this paper is thus to examine the two most critical aspects of the strategic transformation of Turkish Airlines, namely network development and competitive advantage. More specifically, the following two objectives have been set: (1) to analyse the network development of Turkish Airlines in the last decade and (2) to identify the main competitive advantages of Turkish Airlines over its international competitors. The rest of this paper is structured as follows. Section 2 provides background information on Turkey and its air transport market. Section 3 examines the network development of Turkish Airlines. Section 4 analyses the competitive cost advantages Turkish Airlines has developed, Section 5 contains a comparative analysis of Turkish Airlines' air fares, Section 6 examines the carrier's service and brand and Section 7 concludes.

## **2. Turkey and its air transport market**

Positioned at the crossroads of Europe, Asia and Africa, Turkey is the third largest country in Europe both in terms of land area and population. With 8,333 km of coastlines (including islands) on the Black Sea, the Mediterranean Sea, the Aegean Sea and the Marmara Sea, as well as favourable climate, natural beauty, and cultural heritage - Turkey is one of the world's top 10 tourist destinations in terms of international tourist arrivals and tourism receipts (UNWTO, 2011). Between 2000 and 2010, the number of international tourist arrivals in Turkey has increased from 9.6 million to 27 million with an average annual growth rate of 10.9% - the highest among the top ten tourism destinations in the world over the last decade. According to Turkey Ministry of Culture and Tourism (MCT) statistics, 71.1% of the international tourists

arrived by air in 2010 with Germany, Russia and the United Kingdom representing more than one third of all international tourist arrivals (MCT Turkey, 2011).

As a result of a sound macroeconomic strategy in combination with sensible fiscal policies and major structural reforms, the GDP of Turkey has more than tripled, from \$231 billion in 2002 to \$775 billion by 2011 making Turkey the 18<sup>th</sup> largest economy in the world and 7<sup>th</sup> in Europe (World Bank, 2013a). According to the Organization for Economic Co-operation and Development (OECD) forecast, Turkey will be the fastest growing economy among OECD's members with an average growth rate of 6.7% between 2011 and 2017 (ISPA Turkey, 2011). Already the GDP per capita of the country has grown from \$3,492 in 2002 to \$10,079 by 2010 and is expected to reach more than \$15,000 by 2016 (IMF, 2011).

The air transport industry in Turkey could be divided into three main phases: (i) Pre 1983; (ii) 1983 to 2003; and (iii) from 2003 onwards. Before 1983, Korul and Kucukonal (2006) reported that Turkish Airlines was the country's sole carrier. Following the legislation of the "Turkish Civil Aviation Act" on 14<sup>th</sup> October 1983, which allowed private entrepreneurs to establish and operate airlines within Turkey, 19 new companies were formed but 10 of them went bankrupt shortly thereafter. A major reason was due to the restrictive route entry which stipulated that other airlines could only operate on domestic routes if Turkish Airlines did not have a scheduled flight on those routes or it could not meet the demand within an appropriate timeframe. Turkey's air transport industry developed slowly during this period. According to World Bank Data in (2013b)<sup>2</sup>, the number of passengers carried by airlines registered in Turkey grew by a CAGR of 8.14% from 1983 to 2002. In order to stimulate demand and create a more competitive environment, the Turkish government decided to deregulate the domestic market and give private airline companies the right to operate domestically. On 20<sup>th</sup> October 2003, private airlines carried out their first domestic operations in Turkey (DGCA, 2009). Since then, domestic competition and the entry of private carriers was effectively permitted in Turkey's air transport market (Gerede 2010).

As of July 2011, 12 passenger and 3 cargo airline companies operate within Turkey. OAG data from July 2012 indicates the major players in the domestic market include:

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<sup>2</sup> Data originally provided by the International Civil Aviation Authority (ICAO)

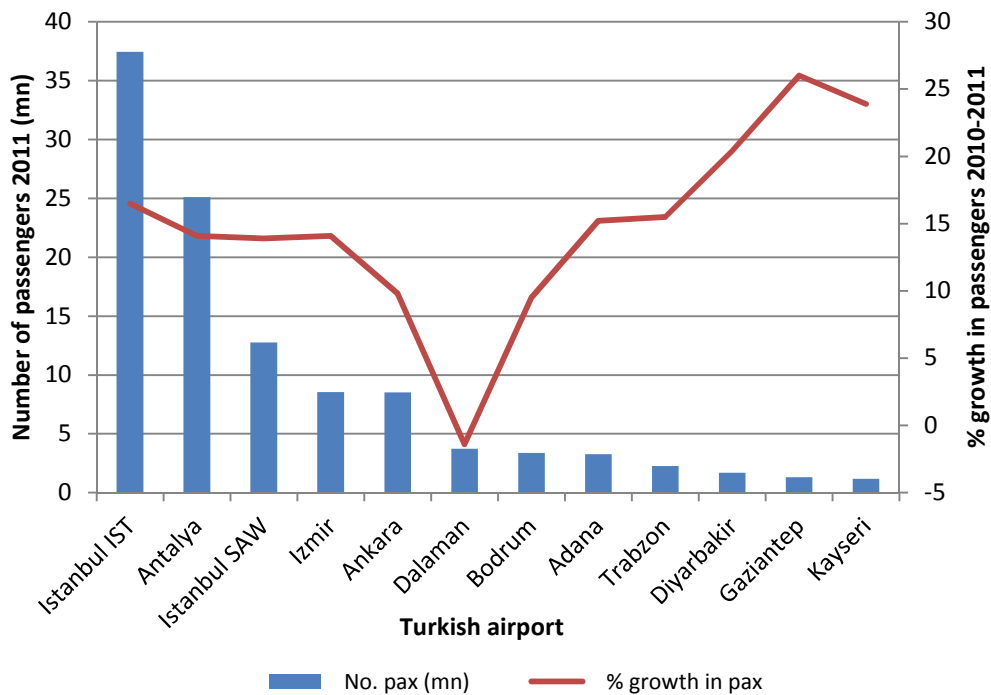
Turkish Airlines (57% of total seats); Pegasus Airlines (26.3%); Onur Air (9.2%); Atlasjet (6.6%); while a number of smaller carriers retain the remaining. A recent study into this newly deregulated Turkish domestic market (Torlak et al 2011) concluded that Turkish Airlines was the most competitive carrier across a range of criteria in comparison to the number of new entrants. Presently, Turkey has 40 civil and 27 military airports. Parallel to the development of the market, the number of actively used airports has increased from 25 to 46 between 2002 and 2010. Twelve of these airports are used for both international and domestic operations and the others for domestic services only (DGCA, 2011). Closely linked to the metronomic rise of Turkish Airlines, Istanbul Ataturk Airport has also become Europe's fastest growing major airport. According to the Turkish General Directorate of State Airports (DHMI), the airport was handling just over 11 million passengers in 2002 but since then has experienced double-digit growth in five of the last nine years, including a 20% growth rate in 2012 totalling 45 million passengers. From this airport Turkish airlines recorded 75% of all flights and 76% of all seats by late 2012. It served 189 routes from Istanbul with 157 of those being International. It operated the highest number of destinations non-stop from a single airport than any other carrier in Europe (Anna Aero 2011). The main airports in terms of passenger throughput and year-on-year growth are shown in Figure 2. 130 million passengers passed through Turkish airports in 2012, while the 3 largest airports (Istanbul Ataturk, Antalya and Istanbul's Sabiha Gökçen<sup>3</sup>) make up 65% share of the traffic share in Turkey. In terms of airport capacity, Istanbul's two major airports have found it difficult to cater for such a large increase in demand for air services to/from the Istanbul metropolitan area. One side of Ataturk (IST) airport, for instance, has been reserved for military activity, which has made options for expansion quite limited<sup>4</sup> while Istanbul's Sabiha Gökçen airport is too far away from the city centre. To compensate, a new airport for Istanbul will be built in the Arnavutkoy area and will accommodate 150 million passengers and is planned to be the largest airport in the world.

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<sup>3</sup> Sabiha Gökçen Airport is used mostly by charter and low-cost carriers

<sup>4</sup> Though permission for the construction of a 4<sup>th</sup> runway in IST was announced in November 2010 (FlightGlobal).

**Figure 2:** Main airports in Turkey by passenger throughput in 2011 and % growth between 2010 and 2011

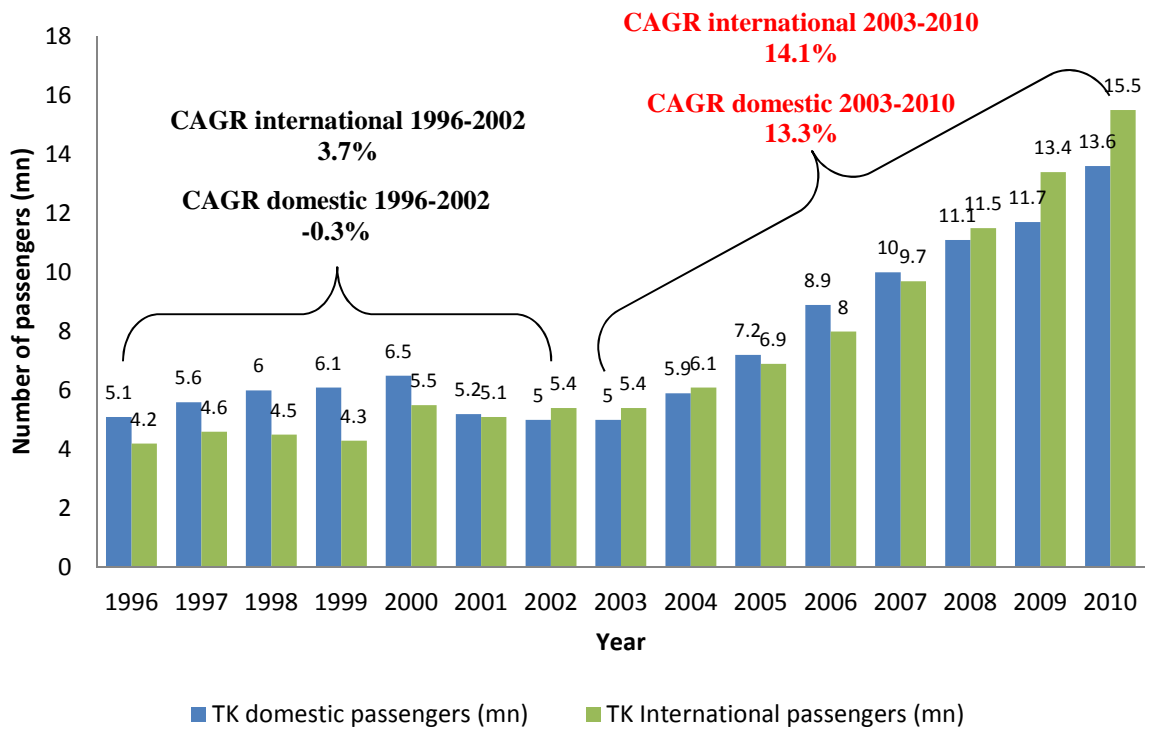


Source: DHMI (2011)

### 3. Network Development of Turkish Airlines

Figure 3 shows that between 1996 and 2003, the number of domestic passengers carried by Turkish Airlines was stagnant, while international passengers only increased marginally. However, since 2003, Turkish Airlines recorded double digit increases in both domestic and international passenger numbers. The number of domestic passengers increased from 5.03 million in 2003 to 13.64 million by 2010, while international passengers increased from 5.4 million to 15.5 million over the same period (TK, 2002 to 2011). Furthermore, load factor for domestic operations increased from 72.2% in 2003 to 76.7% by 2010, while international passenger load factor increased from 66.0% to 73.1% during the same period (TK, 2004; TK, 2011).

**Figure 3: TK's number of domestic and international passengers (1996 to 2010)**



Source: (TK, 2002 to 2010)

The phenomenal growth of Turkish Airlines' passenger traffic was generated by its rapid network expansion. Its hub airport (IST), is conveniently located on the main corridor between Europe, Asia and the Middle East. One of its main missions over the last ten years was to make Istanbul airport into a global hub (Moreno, 2010). Table 1 provides a summary of Turkish Airlines' network development by major geographical regions. Europe is Turkish Airlines' largest international network and represented 55.2% of all international one-way seats in 2011. The company flew to 77 destinations across Europe by 2011, compared to 46 in 2003, however the growth of Turkish Airlines' European network was not evenly distributed. Although Western Europe is the largest part of TK's European network constituting 40.9% of all TK's European capacity in 2011, the seat capacity of TK's Western European network only grew by 9.1% per annum from 2003 to 2011, which was considerably less than the 13.8% of the whole of TK's European capacity. This shows the competitive dynamics being faced by airlines as they enter the markets served by IAG, Air France and Lufthansa. Turkish Airlines reduced the number of destinations to this region from 20 to 19, implying that



this market was very difficult to penetrate. By contrast, the number of destinations served by Turkish Airlines to Eastern, Southern and Northern Europe have been more than doubled in the past decade with the seat capacity growing by 19.4%, 19.6%, and 16.3%, respectively. In these areas of Europe, Turkish have been developing a niche for passengers from other continents wishing to make convenient connections at IST when travelling to final destinations in Eastern and Southern Europe.

**Table 1:** Summary of TK's capacity operations development (2003 to 2011)

<i>Passenger operation</i>	<i>Destinations</i>		<i>Seat-one way</i>		<i>Seat capacity growth (2003-2011)</i>	<i>Average annual capacity growth (%)</i>
	<i>2003</i>	<i>2011</i>	<i>2003</i>	<i>2011</i>		
Western Europe	20	19	1,451,217	2,912,677	2.01	9.1%
Eastern Europe	12	25	386,214	1,591,915	4.12	19.4%
Southern	10	22	366,780	1,540,017	4.20	19.6%
Northern	4	11	322,335	1,076,254	3.34	16.3%
Total Europe	46	77	2,526,546	7,120,863	2.82	13.8%
Middle East	11	27	481,800	2,369,041	4.92	22.0%
Asia Pacific	14	21	533,280	1,776,605	3.33	16.2%
Africa	6	17	170,085	1,060,665	6.24	25.7%
Americas	2	7	146,070	560,765	3.84	18.3%
Total International	79	149	3,857,781	12,887,939	3.34	16.3%
Total Domestic	26	41	3,403,805	9,319,434	2.74	13.4%

Source: (OAG, 2011; TK, 2004; TK, 2005; TK, 2011c)

The Middle East network is TK's second largest international network, representing 14.8% of all international passengers (TK, 2011). Between 2003 and 2011, the seat capacity of TK's Middle East network grew by 22.0% per annum, despite the dominance of the Gulf based carriers - the number of destinations that it served increased from 11 to 27 including five cities in Iraq and one in Afghanistan. Between 2003 and 2010, the number of passengers in the region increased from 0.54 million to

2.19 million with a CAGR of 22.2%. Saudi Arabia alone constitutes 17.8% of the whole of TK's Middle East capacity, the biggest share of TK's Middle East network. In addition to its geographic location, other factors such as religion and mutual cultural background have helped TK to increase its capacity in the Middle East. For example, in 2010 the company carried some 380,000 Hajj and Umrah passengers (TK, 2011).

The Asia Pacific network is TK's third largest and in 2010, this region represented 11.6% of all international passengers (TK, 2011). Passenger numbers in the region increased from 0.54 million in 2003 to 1.72 million by 2010 with a CAGR of 18%. The Chinese market is a major focus as it constitutes 22% of all of TK's Asia Pacific capacity, the biggest share of its Asia Pacific network. It has continued to spread its footprint by opening routes to Tajikistan, Indonesia, Bangladesh Vietnam and Japan – its ASKs and RPKs to Asia increased by more than 20% from 2006 to 2009 alone (TK, 2004 to 2011).

Africa constitutes 7.5% of all its international passengers (TK, 2011). In terms of passenger numbers, Africa is the fastest growing region in TK's international network. The number of passengers in the region increased from 200,000 in 2003 to 1.1 million by 2010 (TK, 2004; TK, 2011). Egypt and South Africa constitute 31.2% of the whole of TK's Africa capacity and by 2012, TK flew to 18 destinations in 14 countries in the region including Mogadishu, where it was the first major commercial airline outside of East Africa in more than 20 years to operate to war-torn Somalia, which clearly shows its ambitious desire to connect the globe and become a global challenger. The Americas is its smallest market and constitutes just 3.4% of its international passengers. It transported 200,000 passengers to/from the Americas in 2003 which almost tripled by 2010 with a CAGR of 14.5% (TK, 2004; TK, 2011). The Istanbul - New York JFK service is now Turkish's largest route across its entire network as it operates three daily flights offering over 13,000 weekly seats in the market, providing even more capacity than on services to London. It also has plans to expand rapidly and is set to add Houston, Miami, Boston, Detroit and Atlanta in addition to its existing 5 routes, thus implying that it is quickly becoming a major threat to all major incumbents worldwide

as it seeks to cannibalise, reshape and redirect the traditional traffic flows between East and West. .

By the end of 2012, the airline flew to 181 international destinations in 96 different countries, becoming the 5<sup>th</sup> largest airline worldwide and the 2<sup>nd</sup> largest in Europe by route network. (TK, 2011). It also became the second largest carrier in the world in terms of flights per week between Europe and Asia-Pacific with a total 392 (Lufthansa being the biggest with 559 per week). It is quite clear from the preceding analysis that Turkish wishes to focus its network development on organic growth and increase its non-stop services to ensure a presence in all continents and international markets. In parallel to its network development, Turkish Airlines expanded its fleet with the aim of improving the hub position of Istanbul and extend its long-haul network. In 2004, TK ordered 51 aircraft, including 15 B737-800, 5 A330-200, 12 A321-200 and 19 A320-200 - the biggest aircraft order in the company's history at that time (TK, 2005). In line with its traffic growth, the company's fleet increased from 65 to 202 aircraft between 2003 and 2012 (TK, 2004; TK, 2013). According to TK's 2012-2021 fleet expansion plan, the airline is continuing to develop its fleet. As of March 2013, the company operates a fleet of 215 aircraft and aims to reach 423 aircraft by 2021 (TK, 2011b; TK, 2011c). From December 2003 to July 2011, TK increased its long and short-haul seat capacity with a CAGR of 17.8% and 14.1% respectively, which clearly reiterates the company's focus on long haul services (TK, 2004; TK, 2011c).

While in 2003 the company focused heavily on European routes, it has expanded its route network particularly to/from the Middle East, Africa and Asia since then. Table 2 shows the weekly frequency of departures in the first week of July 2003, 2007 and 2011. Between 2003 and 2011 the airline increased its weekly departures from IST to: the Middle-East by 308%; from Asia by 278%; and from Africa by 275% whilst ensuring it did not neglect its traditionally strong European network (172% growth between 2003 and 2011). This reflects the carrier's strategy to improve its intercontinental connectivity through its Istanbul hub and give its loyal passengers an increasing array of options to and from Asian, African and Middle-Eastern destinations.

**Table 2** TK weekly departures from IST to each listed region in the first week of July 2003, 2007 and 2011

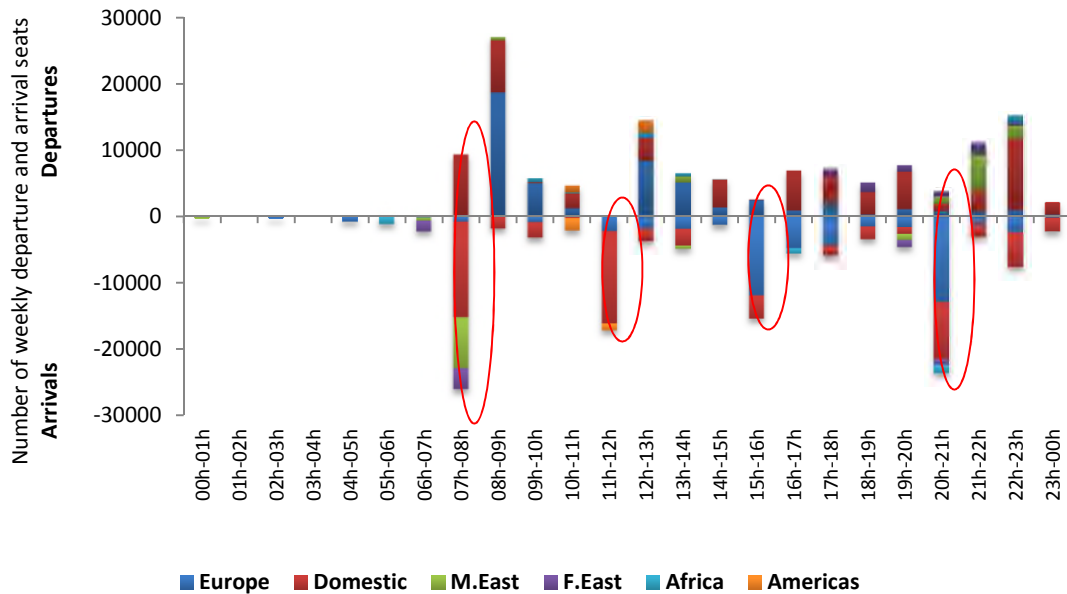
<i>Regions</i>	<i>2003</i>	<i>2007</i>	<i>2011</i>	<i>% increase 2003-2007</i>	<i>% increase 2007-2011</i>	<i>% increase 2003-2011</i>
Africa	20	31	75	55.0%	141.9%	275.0%
Americas	11	13	37	18.2%	184.6%	236.4%
Asia	32	69	121	115.6%	75.4%	278.1%
Domestic	418	681	814	62.9%	19.5%	94.7%
Europe	310	499	843	61.0%	68.9%	171.9%
Middle East	60	95	245	58.3%	157.9%	308.3%
<i>Total</i>	<i>851</i>	<i>1,388</i>	<i>2,135</i>	<i>63.1%</i>	<i>53.8%</i>	<i>150.9%</i>

Source: (OAG, 2011)

The rapid network expansion of Turkish Airlines has completely transformed its hub operation from a wave mechanism in 2003 into a rolling hub configuration by 2011. Figure 4 illustrates TK’s wave type hub configuration at IST in the first week of July 2003. Four waves can be identified:

- **In wave 1:** TK’s 07:00–08:00 Middle East, Domestic and Far East flights fed to European flights between 08:00 and 10:00.
- **In wave 2:** TK’s 11:00-12:00 Domestic flights fed to European, Middle Eastern and African flights between 12:00 and 15:00.
- **In wave 3:** TK’s 15:00-16:00 Domestic and European flights fed to Far East flights between 16:00 and 20:00.
- **In wave 4:** TK’s 20:00-21:00 European, Domestic and African flights fed to Middle East and Domestic flights between 21:00 and 00:00.

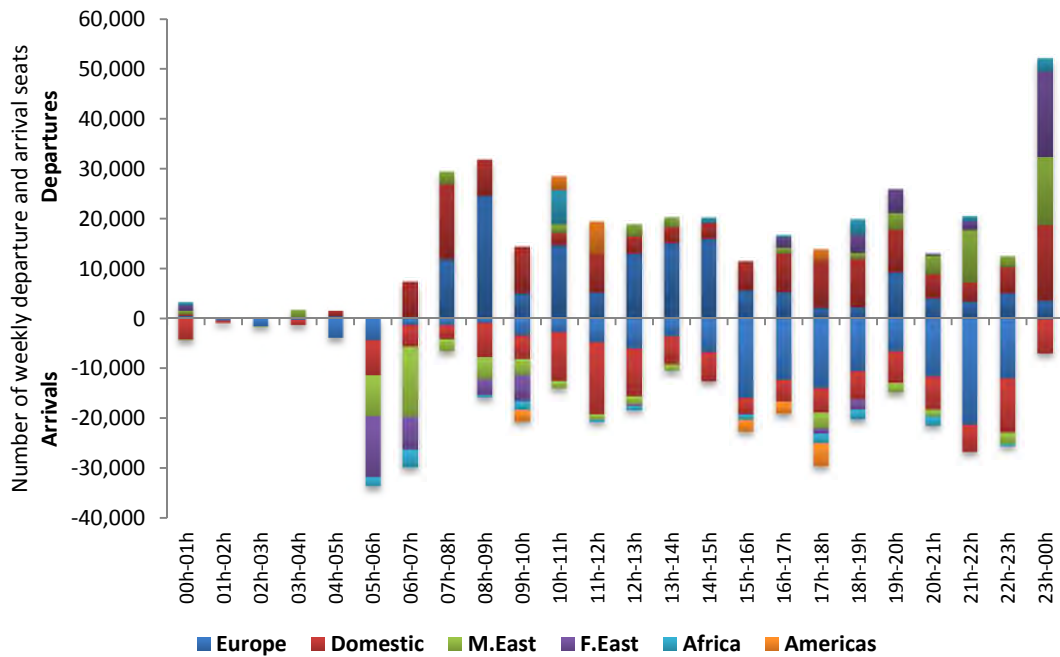
**Figure 4:** TK’s hub configuration at IST in 2003 (modelled on data in the first week of July 2003)



Source: (OAG, 2011)

Figure 5 shows the TK’s new styled rolling type hub configuration at IST in the first week of July 2011, by which connections become a by-product of the system. It can be seen that the company increased its number of weekly seats compared to 2003 but much more importantly, offered more connections during the day. With this hub configuration, TK provides its passengers with more flexibility when choosing departure times as there are more frequent flights to each destination. As a consequence of this hub configuration development, Turkish Airlines increased the number of passengers transferring from an international to an international flight by 34% per annum, from 1.13 million in 2005 to 8.98 million in 2012. Together with domestic to international and international to international transfer passengers, Turkish Airlines carried 16.5 million transfer passengers in total, accounting for 42.3% of total passenger volume in 2012 (TK, 2012). Moreover, the company believes that there is ample opportunity for further improvement and aims to raise its ratio of international transfer passengers to total international passengers by more than 50% in the medium-term (Moreno, 2010).

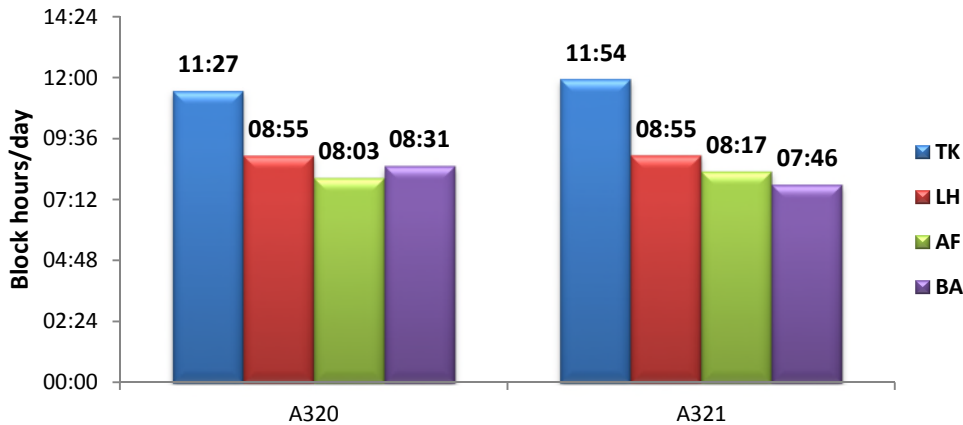
**Figure 5:** TK's hub configuration at IST in 2011 (modelled on data in the first week of July 2011)



Source: (OAG, 2011)

One of the significant differences between TK's 2003 and 2011 hub configuration is the density of its departures between 23:00 and 00:00. Turkish Airlines added a number of new flights to the Middle East and Far East in this time period. Due to the time differences between West and East, the airline uses its aircraft to fly eastwards during the night, returning back to Istanbul between 05:00 and 07:00. These flights help the company in two ways. Firstly, the company increases the utilisation of its aircraft by using them during the night. Secondly, the airline is able to provide a convenient connection for passengers travelling from the Middle East and Far East to Europe with its early morning European flights. The company's well designed hub configuration partially explains the constant increase of its aircraft utilisation. TK increased its average aircraft utilisation from 10:07 block hours/day in 2003 to 12:15 by 2010. Not surprisingly therefore, Turkish Airline's A320 and A321 aircraft utilisation is higher than that of Europe's main flag carriers (see Figure 6).

**Figure 6:** TK and main European flag carriers' A320 and A321 aircraft utilisation in 2009



Source: (WATS, 2010)

A factor which has significantly contributed to Turkish Airlines' hub-and-spoke network is its geographical advantage: a three-hour flight from IST covers 50 different countries. This geographic position helps TK to use narrow-body aircraft to feed its hub. As a result, TK can offer far more frequent flights than its competitors, particularly in Europe and the Middle East. Additionally, the company is able to serve smaller cities where the demand is not feasible for wide-body aircraft. As illustrated in Table 3 Turkish Airlines served 71 different destinations from its main base to Europe, while Emirates and Qatar only flew to 23 and 21 destinations respectively from their hubs in the Gulf region in July 2011. The number of European destinations served by TK was comparable to the largest European Carrier, Lufthansa (78 destinations), far more than the other major European carriers such as Air France (59 destinations), British Airways (41 destinations) and KLM (63 destinations). Its presence in the Middle East is particularly striking as Turkish Airlines serves more destinations (23 destinations) than Emirates (16 destinations) or Qatar Airlines (18 destinations). However its penetration in the Asian market is relatively weaker than the Gulf carriers, though it is comparable to the major European incumbents. So far TK has been ring fenced from the threat of European low cost carriers and from the Gulf carriers because of the bilateral mechanism while these threats have forced the European and Asian majors to continuously restructure and redesign their business models. This has helped Turkish

Airlines to flourish as its market share at Istanbul Ataturk Airport was increased from 71.6% in 2003 to 77.2% by 2011. Turkey's enormous domestic market, which is much bigger than that of its gulf competitors is an added competency that strengthens its strategic capability. According to Goldman Sachs (2010), the ratio of domestic passengers to total population in Turkey increased from 6.6% to 34.6% between 2003 and 2010 but the same figure was 96% for EU-27 in 2010. With a young and large population base and fast economic development, there appears to be substantial future potential growth of the Turkish domestic market.

**Table 3** Number of destinations and weekly flights of various flag carriers from their main base in the first week of July 2011.

Airlines	Domestic		Europe		M.East		Asia		Africa		Americas		Australia		Total	
	Dest.	Freq.	Dest.	Freq.	Dest.	Freq.	Dest.	Freq.	Dest.	Freq.	Dest.	Freq.	Dest.	Freq.	Dest.	Freq.
LH	14	546	78	1,406	13	110	21	122	12	65	24	202	0	0	162	2,599
TK	30	814	71	843	23	245	19	121	11	75	6	37	0	0	160	2,265
AF	12	335	59	1,257	9	79	13	113	28	208	26	267	0	0	147	2,394
KL	0	0	63	801	8	58	15	97	10	59	22	145	0	0	118	1,278
BA	5	251	41	1,160	9	87	12	105	13	80	27	324	0	0	107	2,109
EK	0	0	23	286	16	227	28	408	16	142	6	59	5	49	94	1,265
QR	0	0	21	199	18	339	31	276	11	89	5	31	2	14	88	1,036
SQ	0	0	12	89	3	22	26	362	1	7	2	12	9	179	53	724

**Note:** Frankfurt am Main, Istanbul Ataturk, Paris Charles de Gaulle, Amsterdam Schiphol, London Heathrow, Dubai, Doha and Singapore Changi airports are used as the main bases of the carriers included.

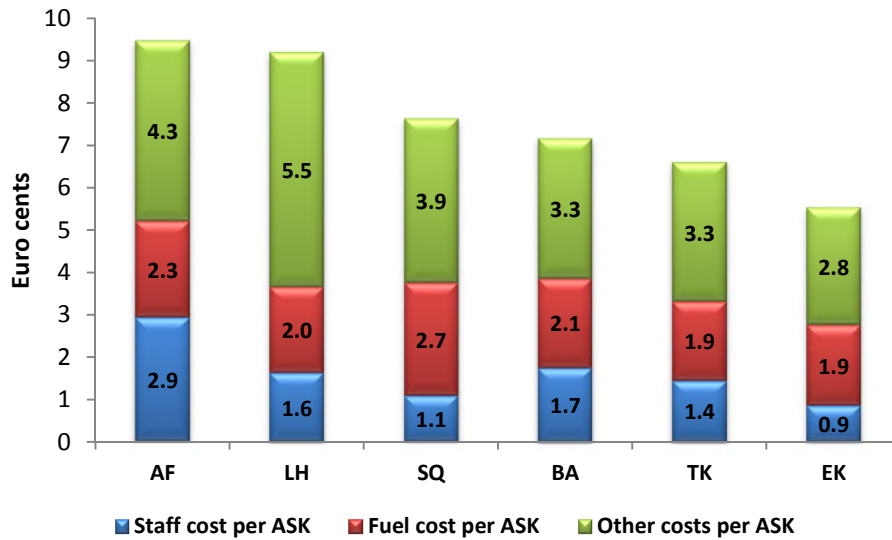
Source: (OAG, 2011) – Compiled by the authors

#### 4. The competitive cost structure of Turkish Airlines

Parallel to its ambitious growth plan, Turkish Airlines also aims to focus on reducing its costs. Figure 7 compares the fuel, personnel, and other unit costs of Turkish Airlines against the main legacy carriers in Europe, Asia and the Gulf region.



**Figure 7:** The unit costs of selected carriers in 2010



**Note:** Singapore Airlines, British Airways and Emirates accounts converted to Euro on the average of relevant financial year through Bank of Canada’s currency converter, accessed at: <http://www.bankofcanada.ca/rates/exchange/10-year-converter/> Emirates, Singapore Airlines, Air France-KLM and Turkish Airlines data is year ending March 2011. British Airways and Lufthansa data is year ending December 2010. Lufthansa data only covers the passenger airline group.

Source: (AF-KLM, 2011; LH, 2011; SQ, 2011; BA, 2011; TK, 2011a; TK, 2011b; EK, 2011)

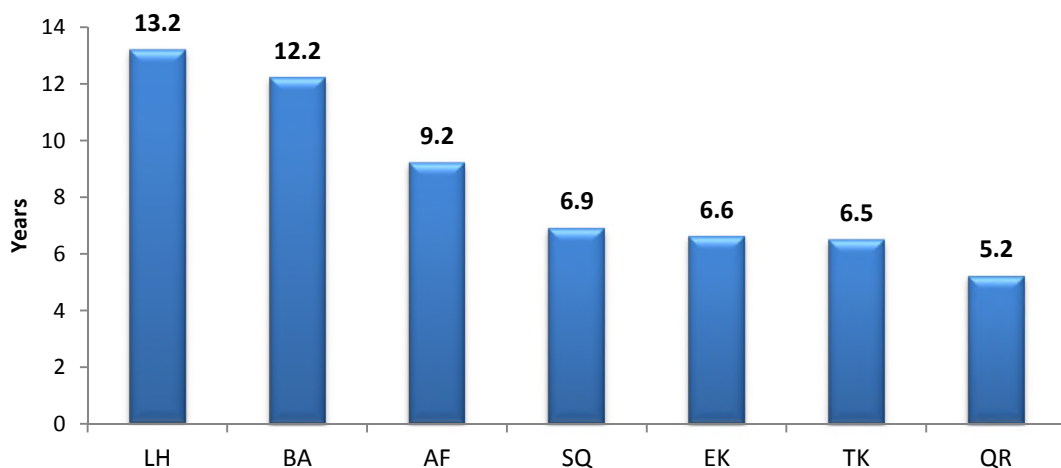
With a total unit cost of 6.6 Euro-cents per ASK, Turkish Airlines has the second lowest unit cost of the selected airlines after Emirates. Fuel and labour cost constitutes the most substantial proportion of an airline’s operating costs and Figure 7 shows that TK has much improved operating economics over European flag carriers in these areas. Company statistics reveal that these two items constituted 50 % of all operating costs for 2010/11 (TK, 2011a; TK, 2011b). These cost advantages will now be further analysed.

#### 4.1 Fuel cost advantages

Over the last decade, fuel cost has become a particularly significant part of an airline’s operational costs. In 2002, fuel constituted just 13% of an airlines total operating costs but this escalated to 33% by early 2011 (IATA, 2011). Nevertheless, the fuel cost only represented 28.3% of Turkish Airlines’ operating costs in 2010/11 (TK, 2011a; TK, 2011b).

The use of efficient aircraft has become the mantra adopted by Turkish Airlines in their pursuit of reducing fuel costs. In 2004, the average age of the fleet was 9 years but this was reduced to 6.5 years by 2010 and by 2015 the average age of the fleet will be around 5 years (TK, 2011; TK, 2005). Figure 8 shows that the company has a relatively young fleet compared to its main flag carrier competitors which has a large knock-on effect in fuel efficiency. In 2006, TK phased out all of its RJ-100 aircraft, replacing them with the more fuel efficient A319-100 (TK, 2007). TK started a project with the IATA Green Team in April 2008 in order to improve its fuel efficiency. This project helped to reduce TK's fuel consumption by 20,455 tonnes in 2010 (TK, 2011a). As a result of these combined actions, the airline's average fuel consumption dropped by almost 10% over the last five years. It also launched a joint venture company named "Turkish Opet Aviation Fuels" with OPET, the leading oil company in Turkey with a \$75m investment budget in late 2009 whereby it will provide fuel storage and refuelling services (OPET, 2010).

**Figure 8:** Average fleet age of different flag carriers by 2010

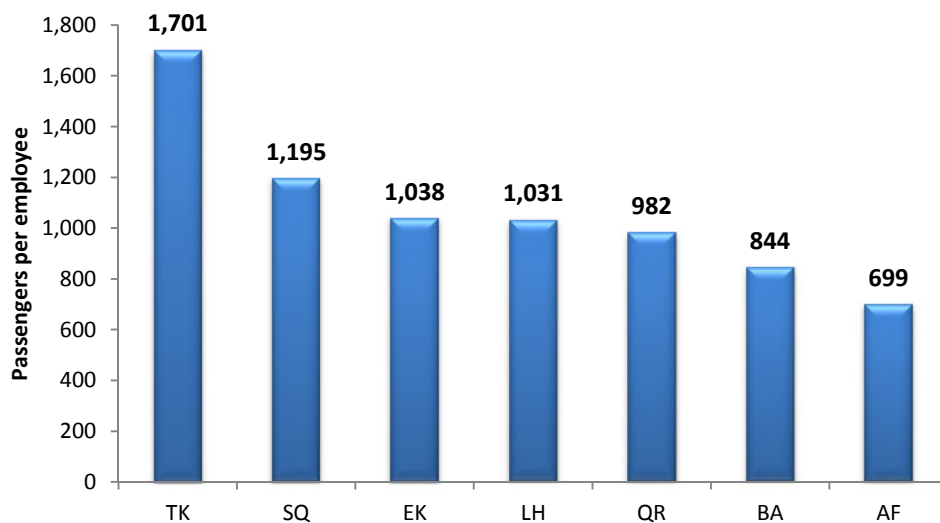


Source: (Airfleets, 2011) – Compiled by the authors

## 4.2 Labour cost advantages

Labour is the second biggest operating cost item for many airlines and it fluctuated between 14.2% and 30.9% for the world's flag carriers in 2011 but registered 21.9% for Turkish Airlines (TK, 2011a). Incumbents such as Singapore Airlines and Emirates have the advantage of low labour costs due to their location, close to cheap labour markets such as India, Pakistan, Sri Lanka, Bangladesh and Nepal, where these carriers use this advantage to carry out their labour intensive tasks such as ground handling, maintenance and call centres (O'Connell, 2011). Meanwhile European flag carriers operate their businesses out of the most expensive cities in the world, such as Amsterdam, Paris and London, which demand high salaries and are backed by strong unions - this great disparity between labour costs across the globe damages the competitiveness and operating economics of those carriers based in Western Europe. Istanbul, the main base of TK, has a lower cost of living compared to most European cities and this facilitates in keeping the cost of labour low. Turkish Airlines has also increased the productivity of its employees significantly as it carried 1,701 passengers for each employee in 2010, up from 1,013 passengers per employee in 2003 (TK, 2004; TK, 2011). Figure 9 shows that TK's ratio of passenger to employee is higher than that of the main flag carriers in Europe, Asia and the Gulf region (ATI, 2011).

**Figure 9:** Passenger to employee ratio of various flag carriers in 2010

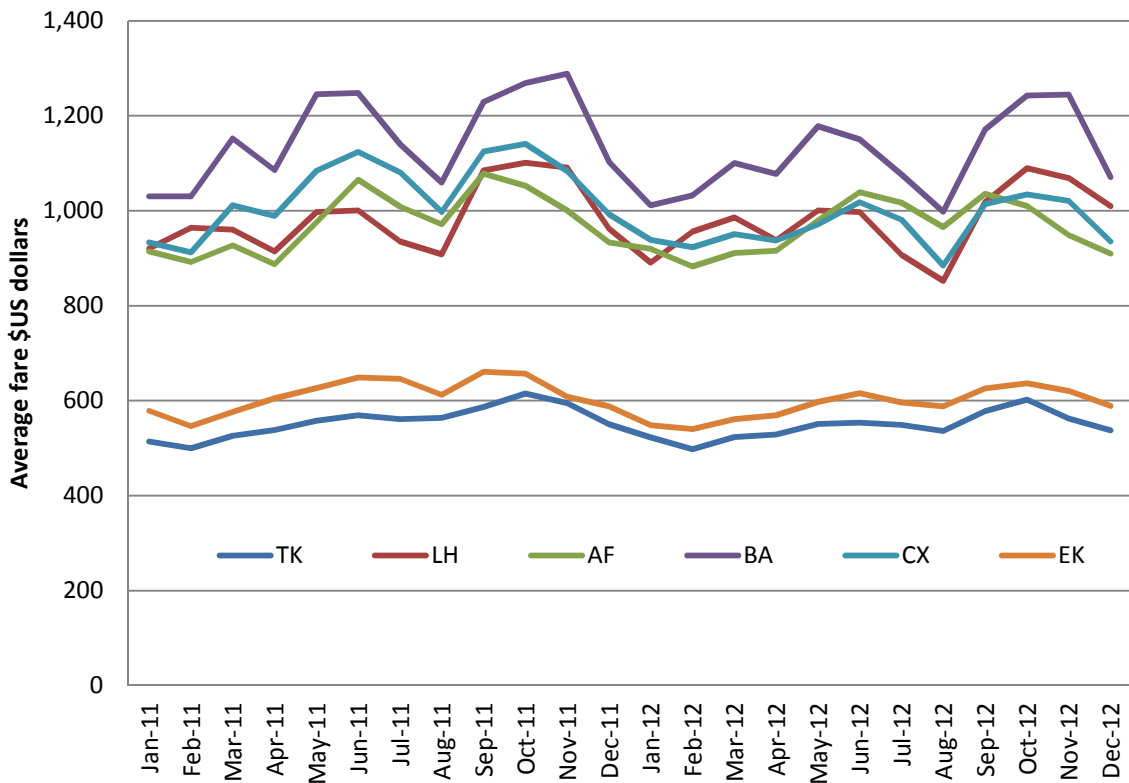


Source: (ATI, 2011)

## 5. Competitive fares of Turkish Airlines

Turkish Airlines has also managed to position itself competitively in terms of air fares in comparison to its main counterparts. Being able to use its strategic geographical location and cost discipline (see section 4) to good effect, the company has been able to offer its passengers value for money on an increasing number of Origin-Destination markets. Figure 10 shows average fare levels across all Europe-Asia O&D combinations during the observed period January 2011 to December 2012 for a selection of major airlines. It is clear from this data that Turkish Airlines is able to sustain a competitive pricing position at a time of heavy investment in its fleet as well as its network and comfort based service features.

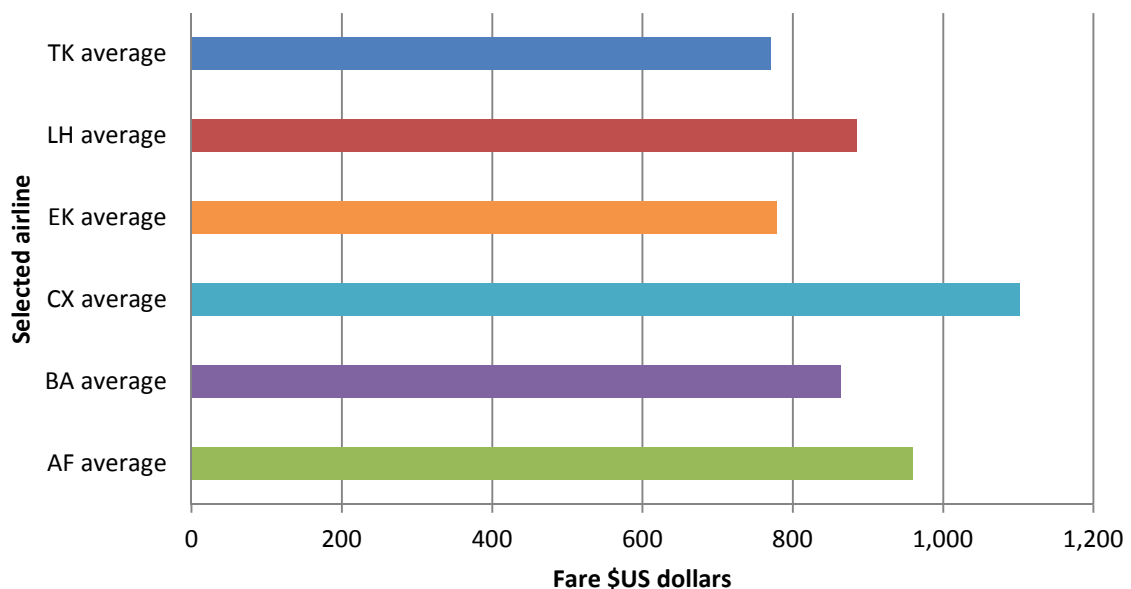
**Figure 10:** Comparison of average fares (all classes) across a selection of network carriers (Jan 2011-Dec 2012)



Source: IATA PaxIS (2013)

This notion is supported by further O&D fare analysis presented in Figure 11, which compares the same six majors including Turkish Airlines over nine randomly selected O&D pairs between Europe and Asia (bi-directional). It was found for the January 2011 to December 2012 period that the company persistently offered the most competitive fares on those markets followed closely by Emirates with Cathay Pacific charging the highest fares on average. In a recent interview with TKs CEO Temel Kotil, he attributes the carrier's ability to offer lower fares to the result of a combination of low unit cost levels together with its high aircraft utilisation and the low average fleet age of six years (Thomas, 2013)

**Figure 11:** Average fare comparison for a selection of network carriers across a sample of O&D airports (Jan 2011-Dec 2012)



**Note:** O&D airport-pairs included in sample were: Manchester-Beijing, Manchester-Tokyo Narita, Manchester-Kong-Kong, Copenhagen-Beijing, Copenhagen-Tokyo Narita, Copenhagen-Hong-Kong, Rome-Beijing, Rome-Tokyo Narita and Rome-Hong-Kong

Source: IATA PaxIS Dynamic Tables (2013), Compiled by the authors

Domestically, the environment has been less competitive for Turkish Airlines even within a more open regulatory environment. There was an increase in the number of players after 2003 with Pegasus, Onur Air, Atlasjet and Sub Express all commencing operations in the following three years. However, according to Killinc et al, (2008) the

ability of these carriers to compete effectively with the incumbent Turkish Airlines was limited by the sheer size of Turkish Airlines' fleet and thus its ability to offer through connections to a wide range of international destinations. The effects of moves towards domestic deregulation were also limited by an inability of the new players to serve all domestic points and routes, and, on markets where competition did exist, the small differentials in fares between Turkish Airlines and these new carriers.

When comparing TKs pricing strategy on intercontinental and domestic markets it is clear that a differentiated approach to pricing has paid off for the carrier. Its aggressive cost leadership position has been transcribed to generate low fares, which were applied on intercontinental markets making it difficult for other international carriers to compete against. Meanwhile on domestic markets it was able to take advantage of scale and scope (connectivity) economies and offered fare parity when compared to other private carriers, which had two major weaknesses as firstly, they were unable to provide such connectivity permutations and secondly they had higher cost bases.

## **6. Strong leverage of TK service quality and brand**

Parallel to its substantial growth and network development, the airline has also focused on investments that continually improve its service quality and global brand awareness, particularly after 2006. According to its vision statement, the company aims to provide the "most envied service worldwide" (TK, 2010). In order to achieve this goal, various service development measures have been implemented. It initiated an enhanced service quality of its on-board products. The latest In-Flight Entertainment (IFE) technology was installed which allows passengers to access their frequent-flyer accounts and to have the ability to provide online feedback about their flight via a 'customer service' function. It also has an embedded connectivity platform which enables passengers to send and receive email and text messages. Skytrax and the World Airline Entertainment Association (WAEA) awarded it the merit of 3<sup>rd</sup> place for its multiple functionality in 2008 (TK, 2008). It also changed the service features for its on-board catering through its subsidiary company known as Turkish Do&Co. Cabin crews have been trained in meal presentation and catering service concepts. The company aims to draw world

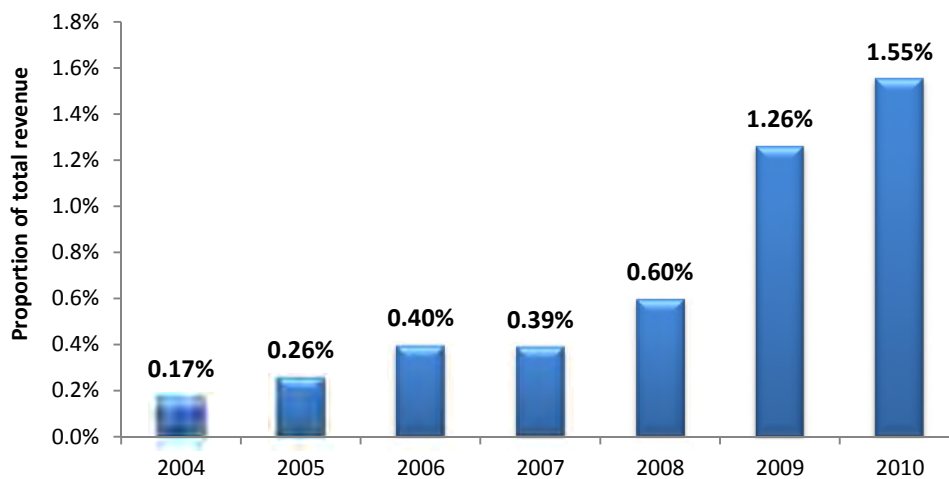
attention to the richness of Turkish cuisine and promoted the “Flying Chef” concept, which is on-board all of their long haul flights for First and Business Class. The company believes that it is playing an important role in demonstrating the uniqueness of Turkish hospitality to the world. Due to all these efforts the company has raised its customer satisfaction significantly, achieving 96% satisfaction with its on-board catering services by 2010. Furthermore, the company won the Skytrax award for the “Best Meals in Economy Class” in 2010 (TK, 2011).

Star Alliance membership also played an important role in the development of TK’s brand awareness and service quality from a global perspective. The company finalised its membership process and became the 20<sup>th</sup> member of Star Alliance on 1<sup>st</sup> of April 2008. The alliance allows TK’s passengers to reach more than 1,000 destinations and to use more than 950 CIP (Commercially Important People) lounges worldwide. In addition, the company adjusted its FFP (Frequent Flyer Programme) according to Star Alliance rules, allowing TK’s passengers to gain or use their miles across any member airline of Star Alliance. The company increased the number of business passengers by 19% in the first year of its alliance membership (TK, 2009).

The company substantially raised its advertisement budget in order to create a global brand from 2008 onwards. It used a combination of top ranked sports personnel such as: Basketball star Kobe Bryant; world’s best soccer player Lionel Messi; together with the world’s number one female tennis player Caroline Wozniacki and mixed it with Hollywood movie stars such as Kevin Kostner who all act as brand ambassadors (TK, 2011). In 2009 and 2010, the company also drew up many important sponsorship agreements which are a vital part of the airline’s marketing strategy. For example, the company sponsored the European basketball league in order to increase its recognition in Europe. Additionally, sponsorships of two of the world’s foremost football clubs, FC Barcelona and Manchester United, aspire to increase the airline’s brand awareness worldwide. TK furthermore aims to increase its high quality brand perceptions with tennis and golf sponsorships. With these agreements the company has become one of the world’s most proactive airlines in sports sponsorship. In addition to sponsorships, as Figure 12 shows, the company spent 1.55% of its revenue on advertising, which amounted to around \$83 million in 2010 – it is quickly becoming a serious challenger in

the global marketplace as the advertising budget for Lufthansa and Singapore Airlines during the same period was 1.48% and 1.32% respectively (LH, 2011; SQ, 2011; TK, 2011). All these efforts and investments have contributed to the company receiving the most recognised global airline awards from Skytrax between 2009 and 2011 (Skytrax, 2011).

**Figure 12:** TK’s advertising budget as a percentage of its total revenue (2004 to 2010)



Source: (TK, 2005 to 2010)

## 7. Summary and Conclusions

This paper examines the strategic transformation of Turkish Airlines with a particular focus on its network development, competitive cost structure, competitive fares as well as service quality and brand. Despite operating in one of the most challenging industries in the world, Turkish Airlines benefited from a number of macro and micro factors which have contributed to the company’s success. Particularly after 2003, Turkey’s robust economic growth stimulated the country’s aviation market. As a result of these developments, the country’s domestic market has grown 27.7% per annum over the last seven years and has become one of the fastest growing domestic markets in the world. Moreover, the size of the country and its demographic features has supported this growth.



As the flag carrier of Turkey, Turkish Airlines has gained some competitive advantages from these developments. In contrast to flag carriers in the Gulf and in Asia, the company can feed its international flights with a combination of international transfer passengers along with passengers from its large domestic market. Since Turkey is not a member of European Single Aviation Market, the company is also protected from the possible threat of powerful low cost carriers such as easyJet and Ryanair. These two factors have empowered the airline at its main base in Istanbul Ataturk Airport.

Tourism development in the country has also contributed to its success. Turkey's long summer season, natural beauty and historical & cultural heritage make the country an attractive destination for tourism. Particularly over the last ten years, the government of Turkey has attempted to stimulate tourism demand by removing tourist visa restrictions and simplifying the visa application process. Furthermore, more than 4.5 million Turkish citizens are residing abroad and their frequent trips to their motherland stimulates demand for flights, accommodation, dining, tourist amenities, etc. All these features have substantially helped the development of Turkish Airlines.

In addition to its point-to-point traffic, the airline has used the advantages of Turkey's geographical position to rapidly develop its hub and spoke network. Due to the fact that Istanbul is on the crossroads of Europe, Asia, the Middle East and Africa, Turkish Airlines is able to operate to more than 50 countries with narrow-body aircraft and feed its long-haul network. As a result, the company can offer more frequencies than its competitors and use their narrow-body aircraft more efficiently.

The competitive cost structure of Turkish Airlines also plays an important role. In comparison to European flag carriers, it was found that Turkish Airlines uses a relatively young fleet helping the airline to keep its fuel cost at a competitive level. Moreover, relatively cheap labour in Turkey brings an advantage to the airline against its European competitors. Additionally, the rolling hub and spoke development increases the company's aircraft utilisation, also contributing to a reduction in personnel costs. In parallel to these developments, Turkish Airlines is also aiming to create a global brand by significantly increasing its advertisement budget and forge sport sponsorship partnerships. The capacity of Istanbul Ataturk Airport is one of the biggest threats facing the expansion plans of Turkish Airlines as the airport has witnessed

exponential growth as 12.1 million passengers used the facility in 2003, rising to 45 million by 2012 and has reached saturation - the associated risks which accompany this predicament include congestion, delays and dissatisfied passengers. If the new proposed airport with a capacity for 150 million passengers takes longer to materialise than anticipated, it will create big problems for Turkish Airlines. Other threatening issues facing the carrier include its lingering safety record, as a result of a spate of fatal incidents since 1971 (a total of six) and Turkey's absence from the European Union, which precludes Turkey-EU citizens from free access to social and labour mobility, despite the fact that it currently acts as a protective barrier against major EU LCC's wishing to set up competing services in Turkey. Overall, Turkish Airlines is set to become a new global challenger in an increasing competitive landscape – it is a profitable and formidable opponent that is reshaping the traditional international traffic flows between continents and is causing major concerns for entrenched incumbents as it is attracting an increasing number of passengers with each passing year to its network.

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# The transformation of a legacy carrier: a case study of Turkish Airlines

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