

STUDY ON TRIGGER EFFECT OF AIR TRANSPORT TO TURKISH FOREIGN TRADE VOLUME: TURKISH AIRLINE CASE

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Abstract-Air Transport is the most expensive but fastest and suitable for small quantities transport especially for quick deliveries of Transportation mode. Air Transport is the fastest option for door to door deliveries of the products that can open the gates for permanent Foreign trade opportunities. Air transport can have trigger effect in forming new markets for Turkish Foreign Trade and up to that Turkish Airline as National Carrier opened new air routes to support Turkish Foreign Trade for next decades. New opened air routes of Turkish airline aims that reaching new destinations for new business opportunities for Turkish Business environment and commodities. In this study, will be studied on trigger effect of new air routes of Turkish airlines in last five years for Turkish foreign Trade by comparing statistical data of Turkish Statistics' Association. The analysis will be relatively defined and interpreted in terms of tonnage loads and Turkish export figures according to the new destinations within the real current numbers.

Keywords: Airtransport, Turkish Airline, Foreign Trade, Turkish exports, Turkish statistical Assocaiton (TUIK), Trigger effect.

HAVAYOLU TAŞIMACILIĞININ TÜRK DIŞ TİCARET HACMİNİ ARTIŞINI TETİKLEYİCİ ETKİSİ; TÜRK HAVA YOLARI ÖRNEĞİ

Özet-Havayolu Taşımacılığı bilindiği üzere en pahalı ancak en hızlı özellikle düşük miktarlı yüklerin hızlı teslimatı için en uygun taşıma şeklidir. Ürünlerin kapıdan kapıya hızlı teslimatı yeni ve sürekli iş olanakları için önemli pencereler açmaktadır. Havayolu taşımacılığının özelliği gereği ülkemiz Dış Ticaretinin gelişiminde tetikleyici etki yapmaktadır. Ulusal Havayolu olan Türk Hava Yolları Türk Dış Ticaretinin gelecek on yıllarda gelişimini de desteklemek için birçok yeni uçuş rotaları açtı. Türk Hava Yollarının yeni uçuş rotaları, aynı zamanda Türk İşadamlarını ve ürünlerini yeni güzergahlarda yeni iş olanaklarıyla buluşturmayı da hedeflemiştir. Bu çalışmada Türk hava yollarının son beş yılda açtığı yeni uçuş güzergahlarının Türk dış ticaretine, özellikle ihracatı üzerindeki tetikleyici etkisini, TÜİK istatistik verilerinden de yararlanarak analiz edilecektir. Analiz, reel güncel sayılar dahilinde ilgili yeni destinasyonlara göre tonaj yükler ve Türk ihracat rakamları üzerindeki etkisi nispi olarak tanımlanacak ve yorumlama şeklinde yapılacaktır.

Anahtar Sözcükler: Havayolu Taşımacılığı, Türk Hava Yolları, Dış Ticaret, Türk İhracatı, TÜİK(Türk İstatistik Kurumu), Tetikleyici etki.

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1. Introduction

Air transport is defined as the replacement of passenger and cargo with an aircraft by providing time benefit. International air cargo transportation is a special type of transportation and is frequently used for the transportation of small volumes and valuable cargo among long distances. The biggest advantage of this type of transportation is fast deliveries. However, unit transportation costs are higher than other types of transportation.

Rapid deliveries of airline transportation over long distances not only cause the order samples to reach the buyer and return to the exact order but also has a trigger effect on the foreign trade with the fact that the order reaches the buyer in finalized and late orders. The desire to fly is one of humankind's old passions. This passion has taken place in legends. In a legend dating back about 5,000 years, Icarus and Daedalus are told that they fly towards the sun with imitation bird wings made of wax. The dreams and legends about the flight became reality in 1783 with Platre De Rozier's first manned balloon flight and Hezarfen Ahmet Çelebi's wing-wing flight.

The great leader Atatürk stated that Future is in the skies. These words show importance given to Aviation by him. In the first years of the republic, great importance was given to Aviation. Aircraft manufacturing was initiated and THK (Turkish Aviation Association) was established. Our civil aviation, which started to pause after the first years of the Republic, has gained momentum with the new arrangements made in this field.

Between 2003 and 2018, the world civil aviation sector grew by an average of 6.2% annually, while Turkish aviation grew by around 16%. While the employment in the aviation sector in our country was around 65 thousand in 2003, it exceeded 200 thousand in 2018, and the total turnover of the sector exceeded 94 billion dollars.

2. Literature Review

Literature Review consisting of English and Turkish sources has been carried out. Thesis related to the subject from the YOK (High Education Council of Turkey), Ebsco and Proquest sites, sources from the Google academic site, IATA and ICAO sources were also used.

Table 1. Literature Review

No	Author(s) &date	Name of the book	Solution Method	Short Summary
1	KEARNS (2019)	Fundamentals of International Aviation	Conceptual	Subjects of International Aviation Law, Air vehicles, safety, security, radio controlled air vehicles, airports ,navigationareanalysed
2	ŞAHİN (2016)	General Aviation	Conceptual	Historically development of Aviation is analysed
3	CAVCAR M. (2015)	Introduction to Aviation	Conceptual	Airports, Aircrafts, Airport ground services and Air management issues are examined.
4	KÜÇÜKYILMAZ A. (2016)	Air Transport	Conceptual	Transport systems, commercial air cargo transport and stake holders are examined.
5	ÇELİK D. (2017)	Air Transport Industry and	Conceptual	Economical aspects of Airline Industry are analysed

		economical effects		
6	KORKMAZ F (2017)	Effects of Globalisation on Turkish Air Cargo and Aviation Industry	Conceptual	Effects of Globalisation on Turkish Air Cargo and Aviation Industry are examined.
7	YAKUT F (2012)	Air Cargo Transportation Present situation and future prospects	Conceptual	Present Situation of Air Cargo transportation and future prospects are analysed
8	ÜLGEN S. (2016)	Effect analysis of new airport of Istanbul	Conceptual	Stake holders of New airports and positive effects on Turkish Economy are analysed

3. The effect of air transport on international trade

Air transport is not only a sui generis large industry but also provides significant input to wider economical, political and social processes. This mode of transport can facilitate the economic development of a region or a particular industry such as tourism, but there must be enough demand for the goods and services offered by the region where the flight takes place and the industry located there. As with other inputs to the economic system, the lack of air transport can prevent efficient growth, but equally inappropriateness and excess supply can lead to waste. For this reason, the modern air transport industry has become an increasingly operating industry in the context of a liberal market.

Although international controls under the structure of ICAO gradually allow providing free services between relevant countries towards Wide Open Sky formulations, Progress in open markets where the ownership of airlines is not limited is sometimes slower. The development of air transport infrastructure and the development and expansion of airports and especially air traffic control systems can contribute greatly to the development of trade on a regional or national basis.

Air transport supports companies' ability to serve customers and organize efficient production, especially for time sensitive products. In addition, air transportation not only makes it easier and cheaper to trade with distant markets, but it also enables easier and faster marketing of goods and services globally.

Worldwide, approximately 900 existing Airlines own about 32,000 aircrafts. There are around 2,160 available airports in the destinations for these aircrafts 18% of the sales of all companies are carried by air cargo. For this reason, 70% of companies wishing to develop market network believe that air cargo is only one and most important mode of transport for this aim.

Figure 1. Turkish Airline Air cargo transportation



4. The triggering effect of the routes opened by Turkish airline in the last five years on our Foreign Trade Volume

If we examine Turkey's position in terms of air cargo; we see that approximately 60-70% of all air traffic from the Far East to Europe, from Asia to Europe, from Europe to America and within Europe is operated through our region. It means that 60-70% of Present air cargo traffic passes over the point of our country, either ends in our country or starts in our country. In 2019, Turkish foreign trade volume reached \$ 391 billion, corresponding to 181 billion dollars in exports, has realized 210 billion in imports. Turkey's foreign trade volume of targeted countries covered by the 2023 target; \$ 1.2 trillion, of which \$ 500 billion is exports.

Looking at the distribution of Turkey's foreign trade transport modes; we can see that the foreign trade of 25 billion dollars on goods is realized by airline (8%). Turkish Air Cargo Transportation, which has the youngest and the most developing aircraft fleet in Europe, has been in continuous development since 2001. Turkey has The bilateral air transport agreements 113 countries as of today, all these agreements are also open for air cargo transportation.

In the light of the developments mentioned above, our national airline TK (Turkish Airlines) has become one of the leading airlines in the world with its breakthroughs and new routes. TK also paves the way for our businessmen to reach new markets by opening the new routes, and it also causes our foreign trade to be triggered. The new routes opened by TK carry not only our Export and Import cargo but also transit (transit) cargoes. TK has opened the following new flight routes in the past five years.

In the table attached in Annex 1, according to the new routes opened by TK between 2015-2019, carried tonnage data of TK and the Foreign Trade Data of TUIK (Turkish Statistical Institute), can be seen there in time range between 2014 and 2019. (TK tonnage data is obtained from TK and Foreign Trade data is obtained from TUIK (Turkish Statistical Institute).

New destinations (routes) are opened by Airlines as per Export, Import and Transit the cargo loads and the number of passengers traveling commercially and touristically. In light of this information, TK's routes to

Senegal Dakar, Ireland, Shannon, Vietnam Hanoi, Bahrain Bahrain, Kuwait Kuwait, Chicago, Atlanta and New York, Congo Kinshasa, Netherlands Amsterdam, England Stansted, Qatar Doha were opened in 2015.

With the new routes opened in 2015, the tonnage carried on the general average increased by 3715.41% and our foreign trade volume exports increased by 19.61%. The tonnage carried by the opening of the Senegal Dakar line increased by 2909.20%, while our exports increased by 43.81%. (Our foreign trade volume , which were 175 million USD in 2014 and 137 million USD in 2015, rose to 168 million USD in 2016 and continued to increase, reaching 289 million USD in 2019.)The tonnage carried by opening Bahrain line increased by 1674.11 % , while our foreign trade volume increased by 24.89 % . (Our foreign trade volume which were 662 million usd in 2014 and 726 million usd in 2015, increased to 767 million usd in 2018 and closed 2019 year with 705 million usd in 2019)

The tonnage that carried by the opening of the Congo Kinshasa line increased by 9476.51% while our Foreign Trade volume increased by 29.19%. (Our volume which were 137 million usd in 2015, closed 2019 year with 161 million usd in 2019)

In 2016, Chennai, Spain Barcelona, Denmark Billund, Cambodia Phnom Penh, Vietnam Ho Chi Minh City, Saudi Arabia Riyadh and Dammam Iraq Baghdad, Sri Lanka Colombo routes were opened. With the new routes opened in 2016, the tonnage carried on the general average increased by 3.20%, while our foreign trade volume increased by 4.73%.

In 2017, Nigeria Canoe, Madagascar Antananarivo, France Paris, Norway Oslo, Czech Republic Prague, Brazil Sao Paulo, Switzerland Basel, Belgium Liege, Taiwan Taipei, Colombia Bogota, Netherlands Antilles Curacao, America Houston and Miami, Canada, Toronto routes were opened.

With the new routes opened in 2017, the tonnage carried on the general average increased by 48.72%, while our foreign trade volume decreased by 4.24 % .The tonnage carried by opening the Canoe Nigeria line increased by 421.90%, while our foreign trade volume increased by 31.91%. (Our volume which was 670 million usd in 2014, 577 million usd in 2015, 394 million in 2016, 485 million usd in 2017, increased to 512 million usd in 2018 and 752 million usd in 2019). While the tonnage carried by opening the Prague Czech Republic line increased by 40.56%, our foreign trade volume increased by 46.89 % (Our volume , which were 3.492 million usd 2014, increased 7360 million usd in 2019). In 2018, Oman Muscat, Mexico Mexico City, India Bangalore routes were opened.

By the end of 2019, the total tonnage of the routes opened in 2018 was 571,152 kg and our foreign trade volume increased by 23.63%. Our volume increased by 41.16 % on the Oman Muscat route while the Mexican route increased by 6.90%. In 2019, Portugal Porto, Russia Moscow, Malaysia Kuala Lumpur, India Ahmed Abad routes were opened. While the tonnages that were opened in 2019, the tonnage carried in 2019 was 5.4267 kg, our foreign trade volume decreased by 5.42%.

5. Results and Recommendations

When we compare the TK statistics regarding the tonnages carried by TK (Turkish Airline) on these routes by years and the TÜİK (Turkish Statistical Institute) General Trade System Data according to countries, the triggering effects of the new routes opened by TK on Turkish Foreign Trade Volume are clearly visible.

In addition to the triggering effect of the routes in the relationship between TK carries tonnage and our Foreign Trade Volume, The positive effects of our export and import cargoes are also observed on the carrying capacity of TK. By these positive contributions of to our export and import cargoes, THY still maintains its leading airline position at those points.

It is pleasing for Turkish Foreign trade that TK opens new routes and increases its transit cargo potential. TK's leading position is an important advantage for our exporters and importers and traders

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