

THE FACTORS OF DEMAND FOR THE AIR TRANSPORT SERVICES

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Abstract:

The article presents the source of the demand for the air transport and the factors of demand for the air transport services. In addition, a characteristics of the air transport market and its individual participants are provided.

Keywords: Air transport, air transport services, air transport market

1. INTRODUCTION

It is generally believed that transport is an activity undertaken in order to meet the specific needs, and this in turn requires travelling the distance by either the man or the good that is designed to meet this need ¹. The above statement determines the cause of movement, but does not define the essence of the air transport.

2. THE ESSENCE OF THE AIR TRANSPORT.

In the literature, one can find many definitions of transport, their content depends mainly on who defines it, a representative of which field of science. Ignacy Tatarski, a representative of the economy, in his book "Ekonomika i organizacja transportu międzynarodowego" includes such a definition: "In the broadest etymological sense of the word (lat. Transportare - transfer) transport means the process of technological transfer at any distance or movement of people, objects and energy" ². Jan T. Hołowiński believes that "transport is generally aware movement of matter and energy. Move - cause objects or persons, as matter or energy particles, to be found at a different place than they were previously" ³.

Both definitions, despite some similarities, differ in the fact that the first emphasizes on the fact that transport is a technological process, while in the second it is a conscious movement. A feature connecting both definitions is that transport is the movement of persons, goods and energy.

Economy, as a science, is the study of the transport phenomena as economic and tries to answer the question of what the transport process is in the economic sense.

According to this doctrine, transport is treated as a process of production, processing or limited resources (means of transport) in a variety of products (transport services) to meet the human needs (movement). As the production process, transport subject to the same economy laws as any process, in which results in the production of the material goods.

Thus, one can say more precisely that: Transport is the production process, by which people - within the limited resources - make move people, goods and energy in the space in order to satisfy their various needs and desires. ⁴

If, in the light of the economy, transport is the production and manufacturing process, the transport service will be the resulting product. It is a product that, like any other created in the process, subjects to the same economy laws, and therefore exchange and consumption. Thus, the production process, involving transporting, as a result of which the transport service is created and consumed, from an economy point of view, does not differ from other important manufacturing processes ⁵.

Similarly, one can define the air transport, which is one of the modes of transport. Only the means of transport can be distinguished, i.e. aircrafts, such as airplanes, airships, helicopters and the space itself, in which the transport takes place.

3. DEMAND FOR THE AIR SERVICES AND THEIR SOURCE

¹ *Transport i spedycja w handlu zagranicznym*. Praca zbiorowa pod redakcją T. Szczepaniaka, Polskie Wydawnictwo Ekonomiczne, Warszawa 2002, p. 13.

² I. Tarski, *Ekonomika i organizacja transportu międzynarodowego*, PWE, Warszawa 1973, p. 11.

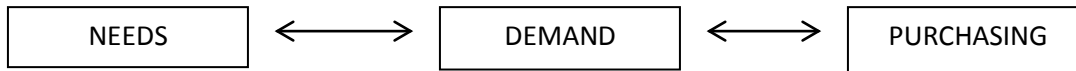
³ J. T. Hołowiński, *Ekonomika transportu morskiego*, Wydawnictwo Morskie, Gdynia 1961, p. 7.

⁴ *Transport i spedycja w handlu zagranicznym*. Praca zbiorowa pod redakcją T. Szczepaniaka, PWE, Warszawa 2002, p. 16.

⁵ *Ibidem*, p. 209.

Demand, as an integral part of the market, reflects the disclosed by purchasers, purchasing intentions, formulated based on their needs and the real purchasing fund ⁶. Picture 1 shows the relations between needs, demand and purchasing.

Picture 1: Relations between the needs, demand and purchasing.



Source: W. Wrzosek: *Funkcjonowanie rynku*, PWE, Warszawa 1994, p. 71.

Before the purchasers will need transport, the initial needs must appear, the purchaser must feel the need and desire to purchase the goods, which is not present on the local market. The result of the initial need occurrence is to purchase the goods on the distant market, and the desire to transport it to the destination. However, the purchasing aspirations are not always reflected in the form disclosed or real demand, as the demand disclosed at the time does not have to be met and then the purchase intention must be postponed over time. As far as the needs are of the unlimited character, the ability to satisfy meet them is limited, so the demand is divided into two categories ⁷:

- potential, which is understand as a natural demand for the air service;
- effective (real) showing the ability to purchase the air service at a given time by a certain number of the purchasers.

The demand for the air services is shaped by such factors as:

- change in the price of the service results in changes in the demand under the demand curve;
- change in the prices of other services of a substitution character;
- customers' expectations as to the future price of the services or lack thereof;
- the economic policy;
- change in real income of the consumers;
- changes in the size and structure of the population;
- phase of the product life cycle on the market. The introduction of a new product/ service to the market results in an increase of interest in it and the gradual increase in demand until the saturation of the product/ air service ⁸.

The demand for the air services is created primarily by the purchasers of these services. In the case of the freight transport, the purchasers in most cases involve the production and trade enterprises and the shipping companies, very little demand for the air services relates to the individuals.

However, in the case of the companies, the customers of the shipping companies, quite an impact on their decisions concerning the choice of the air transport belongs to the companies, the final recipients, the purchasers of the goods, which are "urgently" needed. The companies selling the goods are somehow forced to choose the air transport, which provides them with quick and safe transport.

Transport of the freight is objective in nature and mandatory. They result mainly from the need to implement the agreements of sale, taking into account the factors inducing the choice of the air transport and the need to provide urgently the spare parts, ⁹ the production components or e.g. the transplantable organs or blood.

4. TRANSPORT SUSCEPTIBILITY

⁶ W. Wrzosek, *Funkcjonowanie rynku*, PWE, Warszawa 1994, p. 70.

⁷ *Marketing na rynku usług lotniczych*. Pod redakcją D. Rucińskiej i A. Rucińskiego, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2000, p. 113.

⁸ *Ibidem*, p. 113.

⁹ *Ibidem*, p. 116.

The transport needs in the freight transport are also determined by the so-called freight transport susceptibility understood as its degree of resistance to the conditions and effects of transport. In addition, one can distinguish a number of susceptibilities, the most important of which include the economic, technical and natural susceptibility.

Economic susceptibility - is determined by their value. In the air transport, it is assumed that the higher value of the goods, the more it is susceptible to the air transport, this is because the cost of transport is then a small part of the final price of the goods. The index value of one kilogram of shipment is one of the indicators used in calculation of the susceptibility of the goods for the air transport.

$Ww = \text{Value of the shipment (price) in USD} / \text{Weight of the shipment (kg)}$

It is assumed that if Ww is greater than 10 \$, the shipment will be susceptible to the air transport.

Another economic indicator is the ratio of the tariff costs of the air transport to the transport costs with the comparable mean of transport.

$Wk = \text{cost of the air transport} / \text{cost of transport with other means}$

It is assumed that the air transport can be profitable if the ratio of the cost of the air freight to another is less than 6:1¹⁰.

Technical susceptibility - according to the size, shape and space of the freight. The limit involves the loading door (through which one has to load the goods on the plane), the freight space of the airplane, the maximum capacity of the airplane and the maximum load per square meter of the floor.

Natural susceptibility - is determined by the physical, chemical and biological characteristics of the transported goods. In this regard, the IATA (International Air Transport Association) has established a number of rules and regulations of transport, which mainly concern transport of dangerous goods (DGR - Dangerous Goods Regulation) and transport of live animals.

5. THE MARKET OF THE AIR TRANSPORT SERVICES

The market of the air transport services is a part of the global transport system, it has been integrated into functionally, organizationally and technologically diversified multi-service global market for freight and mail¹¹.

The specificity of the air transport is based on the natural character of the roads. Transport takes place in the airspace in the designated corridors. Movement in the air is possible through the ground-based navigation aids, and the beginning and completion of transport must take place at the airport. This shows that despite some freedom of movement in the air, the air transport is dependent on the point infrastructure.

In order to detail the various air services markets, different classification criteria are adopted, among which the most frequently mentioned are¹²:

- subject of transport - in this category, the following transport markets are specified: goods and freight. It is worth mentioning that more than 70% of all transport work concerns transport of passengers and only 30% involves transport of freight and mail. On the market of the freight transport, the most common transported goods require quick and secure delivery such as medicines, food, spare parts for production, valuable goods, etc.;

¹⁰ J. Czownicki, D. Kaliński, E. Marciszewska, *Transport Lotniczy w Gospodarce Rynkowej*, Szkoła Główna Handlowa, Warszawa 1992, p. 38.

¹¹ *Marketing na rynku usług lotniczych*. Pod redakcją D. Rucińskiej, A. Rucińskiego, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2000, p. 104.

¹² Ibidem.

- transport distance - this category is divided into three transport markets 13 : Long (more than 6000 km), medium (1,000-6,000 km) and short (up to 1000 km);
- nationality of the airspace, in which the transport activity is executed, this category the markets are divided into the national markets, including the regional markets and the international markets, where the air transport is executed with one area of the country concerned in the space of another country;
- regularity - this category is divided into two markets: the regular transport and the irregular transports, otherwise known as the charter transport. The regular transport means the movement of the airplanes on the designated routes, on the specified/planned days and times, while the charter traffic takes place mostly ad hock and this is usually the single transport using a single airplane. The charter traffic is the margin of the entire market of the air transport services;
- the type of the used airplane. One can make the following division:
 - airplanes with wide hulls,
 - airplanes with narrow hulls,
 - cargo airplanes, so-called freighters,
 - passenger airplanes,
 - combi airplanes, i.e. the ones that use the part of the passenger compartment to transport the freight.

Analysing the market for the air transport services, one should also discuss the characteristics of the market. The key and most important are the following:

- simultaneity of production and consumption of the air transport services - this means that the service is performed and "consumed" at the same time;
- strong fluctuations in the volume of transport in time - this feature is revealed in busy periods. The example of such period is pre-Christmas time, when the quantity of the transported goods is several times greater than, e.g. during the holiday season (July-August);
- mismatching of the streams of traffic moving in opposite directions - this feature is very visible on the Asia-Europe and Europe-Asia. On the Asian market, mainly Chinese airplanes fly with full loads, when the airplanes flying from Europe are usually empty;
- low elasticity of demand for the transport services of the branches.

6. CONCLUSION

On the one hand, the carriers cooperate together, on the other hand, they fight ongoing battle for the economic benefits. The airlines and the airports often take cooperation in the field of purchases of the properties, the airplanes maintenance, the handling services, the creation of joint pools (banks/warehouses) of spare parts, the cross-selling services, promote and acting as representatives ¹⁴. The competition of the airlines can be divided into two types: internal - among the air carriers and external - within the inter-branch market, that is competition between the transport branches. The demand for the air transport is created when there is a need to quickly move persons or objects.

The demand for the air transport caused when there is a need to quickly move things or people. The possibility to implement it depends on many factors, the basic of which involves profitability of such transport. In order to maximize the profitability, the individual representatives of the aviation sector are forced to cooperate in order to develop the standard solutions to streamline this process. Competition in this market is held within the well-defined rules.

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