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Integrated Transport
Review
U. D. C. 656.612(262.2)
Accepted: Jun. 6, 1999
Approved: Nov. 9, 1999

TURKISH RO-RO TRAFFIC IN THE PORT OF TRIESTE

ABSTRACT

This article gives an economic and organisational analysis of the intermodal transport service by means of Ro-Ro vessels between Turkey and central Europe through the port of Trieste. Many traits of this service are innovative, at least in the Mediterranean. To mention but a few: the geographical area it connects, the rapid geo-political evolution, the independent managing of the maritime route by a consortium of road transport companies, the use of combined road/ rail transport to reach the European market, the air transfer of drivers, the transformation to the structure of the companies, etc. This service offers indeed a valuable example – not only because of its superior logistical efficiency compared to the road or container ship options – for the future of transport between Europe (in particular central-eastern European countries) and the new markets in the Levant, located behind the Eastern Mediterranean shores.

KEY-WORDS

Ro-Ro shipping, short sea shipping, combined transport, intermodal transport

1. GEOPOLITICS AND TRADE WITH THE “LEVANT”

In general terms, signals of a geopolitical origin, deserve utmost attention, in that they contribute to foreseeing the feasible future of trade and thus allow full exploitation of all the trade opportunities, ensuring they do not lag behind in the field of transport.

The closing of this millennium witnesses, from a geopolitical point of view, many shifts and changes in the area between the oriental shores of the Mediterranean (Turkey, Syria, Israel, Jordan), the Persian Gulf countries, (particularly Iran and Iraq), and the oriental part of the TRACECA area¹ (Armenia, Georgia, Azerbaijan).

This wide area defined in this text for practical terms the Levant is of great economic interest. As consequence of the political changes in this area it will become, according to analysts, increasingly interesting for Europe (European Union and countries of Cen-

tral and Eastern Europe) from the trade point of view [1].

It is therefore paramount for EU member states and other countries of Central and Eastern Europe (Croatia, Slovenia, Hungary, Poland, Czech Republic, Slovakia) to realise that:

- the Levant offers a great opportunity for trade in the future,
- the Adriatic sea-corridor is the most natural way to connect Europe to the Mediterranean countries and to the Levant [2], [3].

2. THE TURKISH EXPERIENCE: A MODEL OF COMBINED TRANSPORT INTO EUROPE.

2.1 Rapid Development of Relations between Europe and Turkey.

A possible future image of trade and transport relations between Europe and countries of the Levant, through the Mediterranean Sea, can be seen by looking at the “Turkish Experience”.

Until a few years ago (the end of the 80s) Turkish trade with Europe was limited to food and semi-finished goods. Nowadays, many Turkish companies have started producing manufactured goods for export to the European member states (at first to Germany, but now also to the Netherlands, Great Britain, Belgium, Italy and Portugal), many European firms established productive manufacturing bases (thus creating an export flow of semi-finished goods), and many Turkish transport services contributed to drawing countries of the Levant (peculiarly Iran) closer to Europe playing a connecting role, and thus increasing trade with these other countries [4].

All of this happened in the terms of a re-discovery of the Adriatic corridor (and the northernmost port of this sea, Trieste) and of combined sea-land transport, thus decreasing the costs, and increasingly encouraging trade.

2.2 Turkish Roll-on Roll-off traffic in the port of Trieste.

The port of Trieste has become a crucial point for trade between Europe and Turkey, because of its position as the northernmost port of the Adriatic, and thanks to the fact that trucks going through Trieste do not need a transit permit to travel through Italy.

In 1998 Ro-Ro traffic through the port of Trieste towards Turkey was estimated to be in the region of 98,000 trucks (embarking or disembarking) a total of 3,000,000 tons. What is most surprising is the speed with which this trend has evolved. This traffic began in the year 1991 (280,000 tons) and has dramatically increased (Fig.1) ².

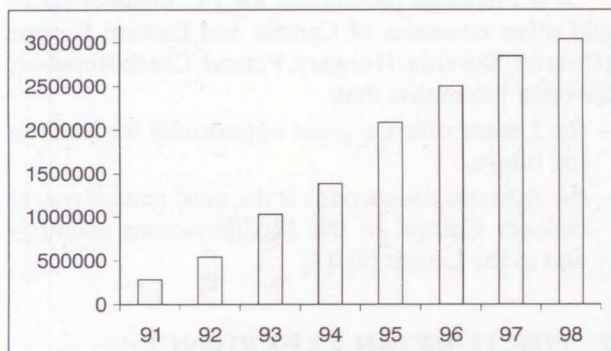


Fig.1 Port of Trieste - Ro-Ro Traffic 1991-1998

Source: Trieste Port Authority

The next sections describe in detail the intermodal Ro-Ro traffic between Trieste and Turkey in order to:

- explain what technical and organisational market factors contributed to determining such a dynamic evolution of the sea transport of motor vehicles;
- evaluate whether this pattern of traffic organisation could constitute a model for the future development of intermodal systems Road/ Rail/ Sea between Central and Eastern European countries and countries of the Levant³.

2.2.1 Organisation and unity as the strengths of the system.

The traffic with Turkey is a classic example of how a pattern of organisation and unity between small entrepreneurs is essential to allow full exploitation of an efficient intermodal system.

From a historical point of view, the Trieste-Istanbul route was established at the start of the crisis in the former Yugoslavia (early 1990s). The difficulties of road transit through Serbia and Croatia encouraged the use of the maritime route, which had not previously been considered, but which became essential to avoid the dangers of the war zones.

To bypass the Balkans many small-scale Turkish Road Transport firms, which had until then worked independently, joined in a consortium to manage their use of the Trieste-Istanbul route with Roll-on- Roll off ships, whilst still maintaining their independence in road transport.

This solution to the problem turned out to be so successful that what was intended to be a temporary measure became the start of a revolution in transport between Turkey and Europe.

The advantages are due to the decrease in the transport costs - sea shipment is relatively cheap - and most of all to the removal of uncertainty of the time needed for the road journey due to the numerous, and often difficult custom controls along the route.

At this time 13 sailings a week connect Trieste to numerous Turkish ports - Istanbul, Izmir, Tekirdag - offering different services, ranging in delivery time from 72 hours (normal service) to 52 hours (rapid service).

2.2.2 Technical solutions for efficiency.

Co-ordination of interests and the concentration of flow has allowed the exploitation of the savings offered by shipping (this is optimised by the fact that there is no intermediary in the management of sea transport) and has also favoured further efficient technical solutions in the process of "industrialisation" of transport activities and mutual partnership.

Some of these solutions were introduced when the route was established, others have been taken on board as the route developed, some others are still in the embryonic stage.

This evolutionary process is a blueprint for the step by step development of efficiency in combined transport. The most important technical solutions in chronological order of adoption are described in the following three points.

a) Air transport of drivers.

Planning together from the start of this initiative led to the organisation of charter flights between Ljubljana⁴-Istanbul, co-ordinated with the ship's arrivals and departures. These flights are used to transport truck drivers, and thus prevent the cost of having drivers inactive aboard the ships.

Consider the case of a trip between Trieste and Istanbul, for example. After complete motor vehicles (both the tractor and trailer) have boarded in the Turkish Port, the drivers can have two days free to relax, or for other work, before catching the plane which will take them to Ljubljana. Rented coaches take the drivers to the port of Trieste, where they pick up their own truck which has arrived after three days at sea, and head on to their final destination.

b) Tractors no longer transported.

The transport of drivers by charter flight, which was the preferred solution when the route was established, is not the best option possible as transporting the tractor on the ship still incurs locking-up cost and takes up space in the hold. Therefore, as the traffic relation consolidated, many Turkish road transport companies decided to extend their activities, opening other branches and offices in European countries. Others decided to join in co-operation with other firms to share the work load on the two shores. The aim was to manage transport on both shores without loading tractors onto the ships. This way it was possible for firms to exploit in an efficient and flexible way the fleet of tractors and to reach a better level of efficiency in both the size and organisation of the firm.

It is important to note that at present transport with the tractor on board covers approximately 40% of traffic and the remaining 60% is transported without. Note also that in the early days of the route almost all transport included both tractors and trailers. With this in mind it is possible to see the evolution brought about by maritime transport.

c) Use of railways.

Considering that 75% of Turkish traffic (in both directions) concerns countries beyond the Alps (in particular Germany, but also the Netherlands and Great Britain), the concentration of traffic meant that rail was the favourite choice for transport through Austria. This choice partly depends on the limits imposed on road haulage by the Austrian government: the cost for rail transport (the technique used is called "Rollende Landstrasse" - Ro-La) is reimbursed to the companies.

At present, the train is assembled near Villach (in the terminal of Furnitz) just beyond the Italian-Austrian border. This terminal is a three-hour journey by road from Trieste. From Villach the Turkish lorries travel to the Austrian-German border to the terminal at Wels, near Linz, where they start their journey by road once more.

Ro-La is a profitable technique: the subsidy provided by the Austrian government saves around 500 DM on a two-way journey. This saving could be increased further, without more subsidies, if the section taken by rail was longer - from Trieste to Germany, or in the future, to other Central European countries.

At present, the train is not assembled in the port of Trieste because, unfortunately, the numerous tunnels on the track between Trieste and Villach ("Pontebbana") render it unsuitable for Ro-La traffic. In 2001 this problem should be eliminated with the completion of the new Pontebbana railway [5].

The fact that the train does not go further than Wels, towards the geographical heart of the market,

(the terminal of Ingolstadt in Bavaria could be a feasible choice) is due to the lack of co-operation with the Austrian Railway Company, that the Turkish entrepreneurs have faced⁵.

2.2.3 The future of Vessel/Train Synergy.

The subject of railway transport as feeder for Ro-Ro transport is worth a closer look.

As regards the Turkey-Europe route through Trieste, excluding the above mentioned problems (relating to gabarit - dimension and the relationship with railway companies, all problems are solvable) it is clear that the synchronised concentration of flow connected to shipping (a Ro-Ro vessel transports 120-150 motor vehicles) is a structural element that favours the use of rail transport, in the shape "blocked train".

With regard to the technique of railway freight, Ro-La seems generally to offer a viable solution to Ro-Ro transport. For haulage exclusively on dry land, Ro-La is an inefficient and outdated method (the tractor must be transported on the train carriage). However, as a feeder of maritime transport, thanks to planned shipping timetables, Ro-La allows the exploitation of many economies (volume, timetable, unified contracts) not normally available to road-rail combined transport.

Furthermore, Ro-La could fulfil, on partially sea bound routes, a pioneering role. It could encourage road transport companies to organise unaccompanied rail transport to inland terminals in the heart of Europe [6]. This could allow improved management of road trailer fleets.

In terms of infrastructure the port of Trieste allows excellent managing of the changeover from sea to rail transport, this is due to the network of rail tracks throughout the harbour and quays, and plenty of temporary parking space available for lorries.

Time wasted, already slight, due to large size of the docks which enables easy manoeuvring could be limited to only a few hours. The ships - up to three vessels can be on the quay at the same time - could be unloaded before midday allowing a good margin of time, which means the train could leave the same evening.

2.3. Roll-on Roll-off versus Container.

Maritime Ro-Ro transport connecting Europe and the Levant across the Adriatic Sea seems to have a greater potential for development compared to the more traditional system of container transport for three main reasons:

1. Ro-Ro is more time efficient: at present Turkey-Europe requires six days, whilst a container takes twenty days on the average. This is particularly relevant to markets towards which there is a flow of valuable goods (for which a premium can

be charged for shorter delivery times) and in a world in which "Just On Time" has become a necessity. The time saving is due to:

- a) Ro-Ro maritime routes are often shuttles and therefore without complex overlapping of flows which is the case with containers. It must be remembered that containers can better exploit the economies of scale of ships and of the handling technologies, but the intertwining of routes implies frequent transshipment and waiting;
 - b) technical evolution of the Ro-Ro vessels enables high speeds without the costs becoming prohibitive even on longer routes [7], and avoids altogether the time consuming handling of cargoes with Lo-Lo technology.
2. Ro-Ro allows the (Turkish) transport companies to maintain economic and quality control of the whole transport chain, by having sole control of the lorries. In this way the need for outsourcing inland road transport to and from Trieste is eliminated. The central role of lorries and the chance to exercise quality control are also important for the acquisition of cargo in "difficult" areas of the Levant where a high degree of professionalism and an intimate knowledge of the country are necessary.
 3. Compared to containers, the semi-trailer can exploit favourable loading conditions (greater volumes, adequate to take two Euro Pallets, the possibility of specialised body shells, such as refrigerated ones, high volumes, etc.). Furthermore road haulage technology will offer more improvement in efficiency in the next few years, and new legislation could encourage an increase in the dimensions of lorries [8].

3 WHAT LESSON CAN BE DRAWN FROM TURKISH FERRIES FOR COMBINED TRANSPORT OF CENTRAL-EASTERN EUROPE?

The above description of Turkish transport through the port of Trieste is not without reason. This model of traffic can be perfect blueprint for the future development between Europe and the Levant.

With particular reference to Eastern European countries (in particular Slovenia, Croatia, Czech Republic, Slovak Republic and Poland), the Turkish experience leads to a number of conclusions and brief observations with the aim of:

- a) suggesting strategies to promote the development of such a model of traffic, particularly considering that by decreasing transport costs, this model would allow a substantial increase in trade to the advantage of several Eastern European countries;

- b) ensuring that, in the development of these strategies, there is no conflict of interest between the widespread use of such a model, and the activity of the East-European transport firms.

The integrated strategic programme to be set underway could be as follows:

1. Specific policies could be launched through the Chambers of Commerce of the European regions to stimulate trade contacts (import and export) with the Levant countries, bearing in mind that the intermodal model through the Adriatic, as already tested there would imply extremely favourable transport costs, and give a strong stimulus to the natural growth of trade.
2. Co-ordinated to the above mentioned initiatives for the development of import-export and within a framework supported by state bodies, road haulage firms of Central and Eastern European countries could propose beforehand to their Turkish counterparts forms of co-operation to manage the workload on the European road network. This would grant, if only partially, an active role for European transport firms and prevent them from being cut out of business run by the Turkish firms⁶. This partial loss that Turkish firms would suffer in the new markets, would be repaid by rapid access to these new and unexplored markets, within which the Turkish firms have no network of contacts. The alternative would be to take no action and allow the Turkish companies to slowly enter these markets with the intention of dominating them completely in the future.
3. In accordance with both of the previous points, and through dialogue with all the parties involved in the traffic issues, the European railway companies should start to plan technical and business agreements to offer combined transport services (including Ro-La) synchronising them with the timetables of the vessels arriving and departing from the port of Trieste. The fundamental issue is that of guaranteeing the reliability of the service in terms of quality (strict respect for timetables). Although the profit for some rail companies could at first be modest, the launching of this traffic could present an important future opportunity to develop larger traffic flow and greater returns.

The alternative to using Turkish firms to develop trade towards the Levant via the Adriatic could be that of European Transport Companies doing what their Turkish counterparts have already done: organising themselves and managing sea-shipping to move fleets of lorries towards the Levant countries. Within a short time, however, the lack of experience, and the cultural gap between these countries could probably well represent an insurmountable obstacle for the European companies.

ABSTRACT

IL TRAFFICO DI RO-RO TURCHI NEL PORTO DI TRIESTE: UN MODELLO INNOVATIVO PER IL FUTURO DEI TRASPORTI FRA L'EUROPA CENTRALE E IL MEDITERRANEO ORIENTALE?

L'articolo analizza, da un punto di vista economico ed organizzativo, il servizio di trasporto intermodale attuato con navi Ro-Ro, fra Turchia e Europa centrale, attraverso il Porto di Trieste. Molteplici caratteristiche di tale servizio, (le aree geografiche collegate, in rapida evoluzione geopolitica, la gestione autonoma del tratto marittimo da parte di imprese di autotrasporto riunite in consorzio, l'utilizzo del trasporto combinato strada-rottaia per l'inoltro dei camion verso il mercato europeo, il ricorso al mezzo aereo per il trasferimento dei guidatori, le trasformazioni indotte nella struttura delle imprese, ecc.), sono estremamente innovative, almeno per il Mediterraneo. Il servizio rappresenta, pertanto, un vero e proprio esempio di riferimento - anche in causa della sua superiore efficienza logistica rispetto sia alla soluzione stradale che a quella marittima containerizzata - per il futuro dei traffici fra Europa (in particolare per i paesi dell'Europa centro-orientale) ed i nuovi mercati del Levante, situati alle spalle delle coste del Mediterraneo Orientale.

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2. The sources of all the statistical data referred to the traffic flows is the bulletin "Movimento marittimo del porto di Trieste", yearly published by "Autorità Portuale di Trieste - Area marketing, sezione statistica"
3. Many of the statements contained in the present article for which there is no bibliographical reference were collected by means of interviews with people involved in the traffic (road transport companies, shipping agency, forwarders, etc.)
4. The airport of Ljubljana is about 1 ½ hours drive from the port of Trieste.
5. It is possible that Austrian Railways could find it difficult to deal with a longer trip than the one day long round trip between Villach and Wels, but the real reason behind this lack of cooperation is probably due to a desire to preserve control of traffic at the extremes of the route. Once the Trieste- Villach route is available, Trieste-Ingolstadt will be the most convenient choice, and that would make Austria only a transit country.
6. It is likely that for countries such as Poland, the Czech Republic and Slovakia - in which the Turkish community is not as widespread as in Germany, and where the Turkish firms have not established themselves in business - reaching an agreement could be easier than in more western countries in which Turkish transport firms would see no interest in surrendering any of their well developed transport chain.

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