Outlook of short-sea shipping in the Mediterranean Sea

Prospettive della navigazione a corto raggio nel Mediterraneo

Background & policy context:

It is often claimed that developing Short-Sea Shipping (SSS) is crucial in the issue of enhancing land-sea intermodality, thus pursuing:

1. environmental benefits, since it reduces pollution and accidents of road transport, and
2. economic benefits, since it reduces congestion on transport networks, reduces investments in transport infrastructure and increases competitiveness of port hinterlands on the international markets.

Short-sea shipping has reached a high development in the world, namely in South East Asia and Europe. A significant share of traffic is concentrated around internal seas (Baltic, Mediterranean/Black Sea, South-East Asia, Gulf of Mexico). Its growth is mainly related to captive markets caused by geographic/infrastructure constraints, or by feeder traffic for hub-and-spoke deep-sea transport. SSS can hardly compete with land transport, namely road haulage, when both land and sea links are available between origin and destination. Nevertheless, this business area is precisely the most important one for policy makers facing the problems of growing congestion and high environmental and infrastructure costs of land transport.

Yet, there seems to be a gap between present growth rate and the goals of policy makers, namely in the European Union (EU). SSS does not appear as a real alternative to land transport, namely to road haulage. Thus, a wide interest rises about critical factors in competition between SSS and land transport. Low competitiveness is sometimes due to geographic characteristics (too short distances between origin and destination, a bad ratio of maritime distance to land transport distance) or to demand characteristics (types of goods, volumes, etc.).

The study was centred especially on the Mediterranean basin analysing both the Tyrrhenian and Adriatic connections towards the countries in the Mediterranean area.

Objectives:

The research had the following purposes:

- identification of a methodology able to understand the nature and the characteristics of all the variables which mainly influence the profitability and competitiveness of SSS
- application of the elaborated theoretical model to a specific market and to a particular target which is considered of main importance
- cargo traffic flow analysis and the identification of the potential demand, using elaborated statistical data and direct researches and interviews to the main actors of the market
- identification and analysis of some actual services on the principal routes using technical data and direct researches to underline price levels and service quality
- evaluation of possible inefficiencies along the actual organisational structure of services and identification of profitable solutions to solve these problems
- identification of the connections which could be opened, after having evaluated their effectiveness
- a particular analysis will be developed on the existence of dedicated port terminals and on the possible SSS routes in the Mediterranean Sea.

Methodology:
Specific mathematical and statistical applications have been used and tested in the project, referred to choices and competitiveness evaluations between different maritime transport solutions in SSS routes. This analysis of the potential supply was developed identifying: the general conditions that allow the maritime transport development between productive and integrated areas and the specific conditions which are necessary for route organisation. With reference to the last goal, the analysis was more detailed and had the purpose to create a useful technical and economical framework.

In particular, the main technical elements (ship type, ports, way access, transit time), the economical (prices) and organisational ones (institutions involved, agreements, etc.) were analysed. Using statistical applications, direct interviews, surveys to operators (producers, transport and logistics operators) the most profitable routes were identified and described.

At the end, a document was created, containing some proposals for the elimination of the identified impediments limiting the development and promotion of SSS.

**Parent Programmes:**
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**Key Results:**

The analysis of demand has highlighted a poor utilisation level of most existing lines, where load factor has seldom reached 50% of operating ships' capacity.

Concerning geographical coverage, the study has regarded 22 countries, revealing three lines where the implementation of SSS services could be interesting: Eastern European countries, (especially Romania, Bulgaria, Russia, Ukraine and Turkey), Spain and North African countries, the last appearing albeit the least profitable.

The second step of the research concerned the analysis of supply, resulting in the identification of existing lines and allowing to investigating the scope for additional services.

The study points out that the 'ancient' port regions do not seem suitable to host this kind of traffic; this is both due to heavy repercussions on the already congested infrastructural system and scarce space availability. Minor ports are better suited to receive SSS traffic, on condition that dedicated infrastructures and hinterland connections are realised.

**Policy implications**

1. **Infrastructural policies:** realisation of dedicated areas within ports; improvement of loading/unloading and cargo management systems; increase of port accessibility.
2. **Legislation and regulation policies:** liberalisation of maritime services’ market; integration/standardisation of port procedures; regulation of port services.
3. **Commercial policies/actions** aimed at improving the image of SSS, actually seen as an inefficient and obsolete transport mode;
4. **Organisational policies:** modal re-organisation and integration; spur to cooperation among operating actors; promotion of terminals’ specialisation and incentive to alliance strategies among operators;
5. Pricing policies: introduction of pricing policies aimed at promote competition; reduction of port duties;

**STRIA Roadmaps:** Other specified
- Water transport (sea &

**Transport mode:** inland

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Societal/Economic issues

**Geo-spatial type:** Network corridors