

PORTS VS. MARITIME INDUSTRY

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Abstract: *Ports are facing change and uncertainty forces that reduce their abilities to control their own destinies. The motive of our research resides in the fact that nowadays shipping companies shape ports' development much more than before. The main goal of this paper is to discuss how intermediary points of the transport chain tie up maritime transport with road and rail transport, and this has as a consequence ports' vulnerability regarding land and water development. The principal results of this research belong to the last decade when these developments were significant and produced uncertainties which led us to the conclusions that ports' design became very difficult and had as a result the intensification of inter-ports competition.*

Key words: *port, shipping, globalisation, maritime industry*

1. INTRODUCTION

Shipping industry has always been competitive. Previous research such as the article *Globalization in maritime transportation: competition, uncertainty and implications for port development strategy* (Slack, 2001) show that each port has a history of rivalry with close or far competitors. Further on, each port tried to ensure a competitive advantage and this, implied usually infra-structure improvement such as a new dock, more storage facilities and more connections with the hinterland. Our research results will prove that without these improvements the port authority would have expected a traffic decrease.

Any advantages given by costs or by services' efficiency improvement can be translated into a higher market percentage. In these conditions ports were able to control their own destinies. Nowadays, this is no longer true. Therefore, this paper is meant to find out how some developments create uncertainty and change conditions leading to traditional ports' outmoding.

2. THE IMPACT OF CONTAINERISATION

Containerization brought with it a revolution in the maritime transport industry. Bringing important economies inside the transport chain, containers allow the cargo to be transported cheaper and on longer distances. This is what geographers call transferability and gives shipping companies a larger freedom to serve markets from a higher range of ports.

The markets that were before in the exclusive hinterland of a certain port can now be served through more gates. Ports don't have exclusive control over interior markets and can no longer be sure that in the local areas trade is ensured.

For ports, the impact of containerization looked very much like a paradox. Many of the investments necessary for ensuring containerization were made by the port industry. Ports had to go to gantries, to bigger terminals and to invest in mechanized shipyard equipment in order to increase operations' speed of docks and shipyards. In *The terminalisation of seaports* (Slack,

2008) the result is seen in a cost reduction inside the terminals and in efficiency improvement. These are benefices that the elements of the transport chain took advantage of.

None the less, in *Ports & Terminals Guide 2007-2008 – Volume 1* (Gibson, 2006) the author describes how the port industry had to carry the burden of investments made because of the containerization without having a commensurate part of the benefices. Ports all over the world felt obliged to get into the container industry by investing in expensive superstructures and infrastructures, but in the end they realized that these new facilities are no longer useful or even out-of-date.

In conclusion, containerization can be considered a lottery. Only those that have a ticket have a real chance of winning but the chances are really small.

3. PORTS NOWADAYS

3.1 The Effect of Globalisation over Ports

Globalization extended and deepened the effects of containerization. Production systems are more global as companies depend on gate-to-gate services and in time deliveries that containers made possible. Logistics represents the means through which trade is organized and ports, which are used as gates for trade, represent one of the multiple connections in the transport chain. Shipping companies have important roles inside the logistic chains, as they seek to increase their maritime services and to extend their control over interior movements. Choosing a port by an ocean carrier can be done based on several considerations that reflect the economy and conditions of the entire chain and not based on the specific recognitions of that particular port.

Shipping companies responded to globalization in certain ways that have a direct impact over ports. Lately, container maritime industry restructured itself in a revolutionary way by merging (NOL and APL, P&O and Nedlloyd, SeaLand and Maersk). By involving some of the major carriers in the world, the new corporations produce an enormous influence. In the same time with the fusions appeared strategic alliances that were formed between major shipping companies. These reorganizations appeared due to globalization pressure, but also due to companies' need to make their presence felt on world's most important markets.

Along with the changes brought by globalization also came continuous technological development. Ships' size has had a real accelerated growth. Ships' size progression was relatively slow in the first 30 years of containerization, but in the 90's there was a size growth that seemed to have no limit. The uncertainty of ships' size represents another challenge for ports. Building up new facilities in order to anticipate ships' dimensions is a risky engagement but anyhow, ports must take this risk if they want to keep up with the container market tendencies. What is known for sure about ships' size is: they will have a larger maximum beam that will need a new generation of gantry cranes on docks; an increased draught that

will need much more dredging; a higher capacity that will need a larger dock, as well as a faster and higher handling capacity. All these imply extra capital expenses.

3.2 Development Ashore

Containers distribution to and from interior markets had an important role in logistic systems appearance. Controlling gate-to-gate transports has become an important characteristic of modern transport. Owing such a control means a better integration between transport types and in the same time it requires organizational structures in order to handle the flows. Also in this area, shipping companies have an important role, either directly by operating their own services like in U.S.A. and Canada, or by association with intermediary companies like in Europe. The result is presented in *Logistics and Multimodal Transport* (Institute of Chartered Shipbrokers, 2006) as the appearance of multimodal logistic providers that control flux rates in conjunction with oceanic services of the consortium and in which individual ports are seen as unpredicted things that appear as a whole structure.

3.3 The Effect of Transshipment over Ports

Transshipment's importance has an effect over the dynamic nature of container port business and also over total traffic flows.

As there is a high tendency towards transshipment of containers, it has been suggested that direct calls made by ships are rationalized as carriers are looking for high levels of profit. Traditionally, the cargo level concentration or "hubbing" was determined by evaluating the difference between "feeding" costs and extra costs for handling and calls in an additional port. Maritime economists still consider that handling and "feeder" costs make transshipment more expansive than direct calls in ports.

Yet, the industry or at least most of major carriers have a tendency of moving in the opposite direction by continuing to select transshipment hubs and making port calls in these hubs with larger ships. The fact that this growth in transshipment process is a lot faster than the total traffic growth confirms the maritime container tendency of taking into account more and more the transshipment.

4. PORTS IN THE PRESENT TIMES

As costs for staying in competition keep increasing, ports find themselves in the position of losing their ability to control developments. In *Port Designer's Handbook: Recommendations and Guidelines* (Thoresen, 2006) external pressures coming from shipping companies combined with internal forces are shown to be the main reasons which led to a difficult situation in which ports find themselves at this particular moment.

Ports used to be great generators of labour. Large crews necessary for working on board ships that spend a lot of time in port, Dockers that used to be needed for loading/discharging vessels, the large sector of intermediaries (brokers, storage companies) brought their contribution to the local economy. Port cities were population and industry centres. Containerization diminished these benefices. Nowadays, ships spend less time in ports, crews are relative small, and Dockers' work hardly reduced.

So, in this context, one can honestly say that containerization reduced ports' economic impact over cities. These particular circumstances must be looked at in the light of growing costs belonging to containerization that show up because of ports.

5. HOW CAN PORTS SURVIVE

It is very important that ports cope with the challenges shown above. Most of port authorities that are trying to keep up with the pressures coming from alliances and merges adopted one or two strategies.

The first one is to keep up with container market demands. Realizing that all companies invested in larger ships, many ports adopted a series of ambitious expanding projects by ordering post-panama gantry cranes and deepening and widening the berths. Most of the time, many of these investments were made without any particular goals and not under the influence of a rigorous financial economical evolution.

The second approach is the one of following the strategies towards which clients lead you, strategies in which supra-structure and infra-structure facilities were developed in relation with customers' demands (shipping companies). In other words, the customer is offered whatever he needs no matter the financial, commercial and ecological consequences.

Both strategies had a contribution to doubling and overstepping the facilities' capacity available for the container market in most parts of the world and, because of shipping companies' instability, these two strategies are solutions with no economical or environmental support. There is no proof suggesting that by spending excessively in order to solve the problem, ports will be able to regain the control of their own destinies.

It's been demonstrated that the two approaches are not viable and that's why a third one is making its appearance. It is based on the well known strategy of focused market in which actions are orientated towards offering to well known clients superior quality services with a cost that has as effect acceptable profit levels. This approach needs a certain seek and a realistic evaluation of the way the port fits the local, regional and global markets.

6. CONCLUSION

Ports are facing turbulent, very changing and uncertain situations. Port markets are no longer stable because the forces that act upon this environment are continuously changing. Technological progress, logistics integration and new associated organizational structures constantly reshape the port industry and companies are struggling to cope with these situations.

Ports are obliged to follow the shipping industry trends and they have to keep up with new developments and larger ships. They constantly have to invest in order to have up-to-date infra-structure and supra-structure in order to keep having clients (terminal operators, ships that make calls and so on).

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