

CONTAINER SHIPPING MARKET DIMENSIONS AND CUSTOMER ORIENTATION IN THE CZECH REPUBLIC

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The forthcoming research characterises and analyses the key market players (shipping lines), their customer service policy together with the implications the container transport bottlenecks have for the market in the Czech Republic with customer orientation being one of these. Evaluating companies' customer orientation and analyzing container shipping dimensions in the market of transport and logistics is a highly complex task, especially in the times of the changes in the market. To obtain the data necessary for an informed analysis, open interviews with selected customer service managers will be made and questionnaires distributed in the Czech Republic. Due to the concentration of container and logistics activity within a relatively small number of global shipping lines present in the countries with substantial market share, the approach of market characteristics will be case study based. It must be stressed this is a conceptual paper only, the data has not been collected yet; therefore, there is no conclusion on the research. It is focused primarily on methodology applied and a literature review.

JEL classification: L91, M16, M31

Keywords: Container; customer orientation; intermodal transport; shipping

Research Importance

The core value of the project is to contribute to the development of knowledge and expertise in the field of transport research in CEE by analyzing regional intermodal transport bottlenecks within emerging logistics platforms and consulting those with academics abroad, mostly overseas (e.g. Jean Paul Rodrigue, Hofstra University or possibly Sean M. Puckett, Volpe National Transportation Systems Center, U.S. Department of Transportation Research and Innovative Technology Administration).

Methodology

The research will use qualitative case-based methodology together with quantitative data analysis where possible. The comparative case study approach is selected as an appropriate method (Yin, 2009) focusing on research field, its dimensions and it is motivated by goals of contributing to management and economics theories (Eisenhardt, 1986) and (Woodside et al., 2003).

Regional upper management representatives of the shipping lines were identified as the appropriate units of qualitative data collection. They were selected through the following criteria:

- The shipping line's market share (by twenty-foot-equivalent (TEU) volume) of container traffic having the Czech Republic as origin or destination of trade routes including the maritime leg, for the USA, selected managers of the companies providing shipping service on Transatlantic routes and/or rail service with existence of shipping line's subsidiary or agent office in the Czech Republic.
- A shipping line case can be replaced by the other company sample.
- The researched phenomenon of the cases is important at least nationally or regionally in terms of theory, practice or policy.

The questionnaire structure applied in this research project (Baird, 2002) has been distributed to the customer service managers of the selected shipping lines since the author is willing to support (with the information collected) that not all activities of the shipping line subsidiary departments are implemented within the scope of a philosophy based on efficient and responsible marketing (Plomaritou, 2006). The related customer orientation dimension survey is primarily targeted at

identifying customer service delivery and related operational bottlenecks in intermodal transport systems focusing on the managers' evaluation and responses in the following fields:

- Long term objectives by the company
- Customer classification criteria
- Customer loyalty evaluation
- Customer service factors evaluation by customers' feedback
- Customer orientation responsibility by departments
- Customer satisfaction data, its processing and storage
- Ways of identification of the shipping line's employees with customers' needs

In the case of the Czech Republic, the interviewed companies (shipping lines) for the comparative case study approach will include a shipping company headquartered in the European Union and a shipping company from Asia representing the opposite sides of marketing approaches in multinational companies: standardization versus localization concepts (Karlíček et al., 2013) with combined market share of around 34 percent of the TEU-based import and export market (Association of Forwarding and Logistics of the Czech Republic seminar, 5 April 2012). In the case of the European shipping company, the marketing orientation is focused on limited adaptations of marketing communication with a minor creativity level by customer service managers. In the case of the Asian company, customer service managers have a more complex role, covering the sales strategies, product (shipping service) alternations and communications. In case of the USA, the top market players in maritime shipping are quite similar (respective market shares will obviously differ).

Data collection, besides customer orientation survey, in the USA (for the purposed of comparison) will be undertaken in cooperation with professor J.P. Rodrigue of Hofstra University (Hempstead, New York) who has widely published on the topic of logistics zones (Rodrigue et al. 2009, 2010) and (Rodrigue, 2011). For the Czech Republic, data collection is based on networking via my home university department with relevant companies in the Czech Logistic Association and the Association of Forwarding and Logistics of the Czech Republic in which my home faculty department is an associate member.

With restricted sample size and qualitative nature of the data collected, it may be challenging to identify robust indicators of statistical significance. Therefore the results will be discussed together with the motivation of managers' responses on a case-by-case basis to learn from diverging points of view and the conclusion discussed and published late 2013.

Research Dimensions

The research itself is focused on bottlenecks and their mitigation in the context of the Czech Republic. It is conducted over the following dimensions that were identified and for comparative framework purposes the following dimensions will be researched in cooperation with Dr. Jean-Paul Rodrigue, Hofstra University, Department of Global Studies and Geography:

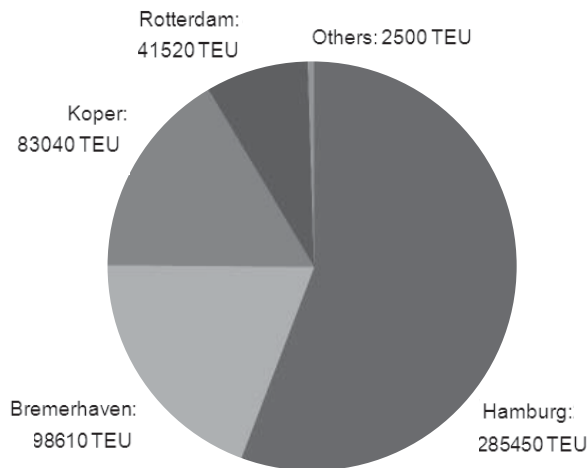
- Layers of logistics activity
- Intermodal infrastructure
- Road infrastructure and drayage operations
- Rail corridors and operators
- Transport and supply chains
- Inland ports: bringing the massification inland
- Relations between carriers and freight forwarders
- Customer orientation
- Intermodal transport policy

Within the layers of logistics activity dimension (Wang et al., 2007), the commercial and logistics context of the Czech Republic and its integration within the European economy will be presented. The research will focus on the origins and destinations of containerized cargo movements, transport nodes and links, transport service operations and transport chain organization. In terms of logistics activity, the current dynamics are influenced by the European Union (EU) integration and enlargement processes and its geographical position between the mature production, distribution and consumption markets of Western European countries such as Germany and Austria on one side and emerging markets such as Russia, Ukraine, Romania or Bulgaria on the other.

With the focus on intermodal infrastructure, an overview of intermodal terminals and their linkages is provided, highlighting their importance. The key intermodal terminals in the Czech Republic and Slovakia are directly linked to the ports of Hamburg, Bremerhaven, Rotterdam and Koper. Within the dimension of intermodal infrastructure, the basic goal is to provide an overview of the intermodal network structure by modes and terminals, in addition to the main logistics zones servicing them (Notteboom, 2011). For instance, these were partially researched with the EU support within the project Flavia No. 2CE189P2 focusing on freight and logistics advancement in Central/South East Europe in the past (Mazáč et al., 2010). The project report and data are available at <http://www.flavia-online.de/> (data accessed April 12, 2013).

In the area of road infrastructure and drayage operations, the network of roads and motorways will be characterized in detail together with capacity and quality issues within

Figure 1 Key Container Ports and TEU volume of seaborne trade exported or imported to the Czech Republic



Source: Ministry of Transport of the Czech Republic consultations, 2012; Association of Forwarding and Logistics of the Czech Republic seminar, April 10, 2013.

the European framework (Lowe, 2005) since most highways and main roads in the Czech Republic are part of the international E-road network with the key role of the D1 motorway connecting the major economic centres – the capital of Prague, the cities of Brno and Ostrava and those being directly linked to key trimodal and bimodal container terminals. Since motorway network construction is still solely financed by the state (State Fund of Transport Infrastructure) and the available budget is challenged by the lack of concrete public private partnership (PPP) projects, road infrastructure improvements remain a salient issue. Due to the insufficient highway capacity network, containerized road movements in the Czech Republic and the CEE in general are fragmented (Limbourg et al., 2009).

With the focus on rail corridors and operator dimension, the enduring European constraints of freight versus passenger transport will be reviewed. The privatization and deregulation approaches by the Czech Republic and other CEE countries will be discussed together with the emergence of external interests (German) seeking better access to the CEE markets. The main rail operators in the Czech Republic are METRANS, CSKD Intrans, ERS and CD Cargo (Czech Railways subsidiary) providing rail services and linking the container seaports with bimodal and trimodal terminals.

Within transport and supply chains, the roles of shipping lines active in the region, their agents, non vessel

operating common carriers (NVOCC) and the main challenge in their effective realization will be underlined (Leinbach et al., 2008). The top five carriers by their TEU volume share and agents in the country are Maersk Line, Hanjin, Hapag Lloyd, CMA CGM and Hapag-Lloyd. The top five freight forwarders (by the same statistics unit) consist of Kuhne Nagel, DHL, Schenker, CS Cargo and Czechoslovak Ocean Shipping (COS) (Association of Forwarding and Logistics of the Czech Republic seminar, 5 April 2012). The freight forwarders market is mostly dominated by German headquartered companies.

The review of inland ports and their function (Rodrigue et al., 2009) will focus on the ongoing massification of container flows through a concentration of cargo on a limited set of ports of call. Two different port clusters relevant for imports and exports from the Czech Republic can be identified. On one hand, there are the most important European ports within the Northern Sea Range between Le Havre and Hamburg. On the other hand, several of the North Adriatic ports deserve some consideration. In the case of the Czech Republic, only four ports have a significant market share in terms of exported and imported containerized cargo: Hamburg, Bremerhaven, Koper and Rotterdam (Hafen Hamburg Presentation, Association of Forwarding and Logistics of the Czech Republic seminar, 5 April 2012).

By far, the most important sea port is Hamburg with the volume of full and empty containers on exports and imports 285,450 TEU representing 56% of containerized seaborne cargo with the destination or origin in the Czech Republic, see Figure 1.

Regarding the balance of container flows, the Czech Republic is characterized with more containerized cargo being imported than exported, leading to additional logistical challenges related to the repositioning of empty containers. The research dimension concerning the relation between the carriers and the freight forwarders will discuss the trade power between these market players (Konings et al., 2008) and identify the beneficial cargo owners (shippers and consignees). The key final customers (shippers and consignees) of the carriers and freight forwarders present in the Czech market are automotive industry manufacturers, clothing companies, beer producers, companies producing machinery parts (engines, trams equipment exported overseas), air craft industry suppliers and retail companies.

The intermodal transport policy dimension will deal with the existence and implementation of public policy in transport stressing the strategies and tools the state government and its bodies have (Lowe, 2005) and (Hoel et al., 2010) to promote the intermodal and combined transport concepts in the Czech Republic. The Ministry

of Transport of the Czech Republic is the key body of the state government. The Ministry has recently introduced a new project that aims to shift cargo from road to rail and inland waterways. The strategy is based on the financial support of public logistics centres (PLCs). The funds available by the Ministry to support intermodal and combined transport originate from the State Fund of Transport Infrastructure.

The overview of customer orientation issues in the shipping market has been provided by the author previously (Kolář et al., 2012).

Conclusion

Upon completing the research project in November 2013, the most suitable (technically possible and cost feasible) ways to connect freight transport infrastructures of the Czech Republic to the CEE and European network to reduce the bottlenecks and improve the competitiveness of the national economy while comparing to the U.S. one will be suggested together with necessary changes in the customer service orientation of shipping lines in the Czech Republic.

The final research paper with conclusions and data analysis will be submitted to first tier peer reviewed journals such as the Journal of Transport Geography, Transport Reviews or European Transport Research Review (pending the form of the paper and if special issue contribution are solicited by a specific journal) in 2014. The ongoing research results and their implications will be presented at a UTRC (University Transportation Research Center) seminar in New York during the author's stay as a visiting research associate at Hofstra University from October to November 2013.

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The forthcoming research is financed by the Internal Granting Agency of the University of Economics, Prague, project no. project MF/13/2012.