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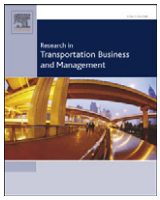

Border-crossing constraints, railways and transit transports in Estonia

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ABSTRACT

North-East Europe has served as a general cargo transit area for Russia and other emerging economies of the East for decades. Typically, this activity was initiated with road transport, but after some years of operation, border-crossings became problematic and in some cases even impossible to conduct. Volume of transit transport was therefore severely constrained. As one remedy to sustain transit traffic, the Baltic States have implemented container trains to eastern destinations. Even though, overall transit traffic through Estonia has decreased mainly due to the increased volumes of Russian seaports, the container transit traffic has increased steadily: Volumes were really minor a decade ago, but have increased from several thousand containers up to above 50,000 TEU in 2013. This has enabled hinterland transport and incoming container volumes in the port of Tallinn to develop. This research work analyzes not only second hand data regarding Estonian general cargo transit, but also includes case study visits. The case company has established many international container train connections. Container transit traffic has an optimistic future outlook in Estonia. However, the main operational constraints are related to gauge widths, border-crossing operations, delivery time issues, low price level of road transport, unpredictable Russian market and legislation and infrastructure investments.

1. Introduction

North-East Europe has served as a general cargo transit area for Russia and other emerging economies of the East for decades. Even though the total rail freight volume of Estonia has decreased in recent years, container transit transportation by rail has increased, not only in Estonia, but also in the other Baltic States. At the time of the study, the Estonian railway company reported transporting nearly 62,000 containers (TEUs) cross-borders per annum (in the year 2013), and public information from Latvia and Lithuania confirms that their volumes are substantial as well. Latvian Railways (2012) reported that in the year 2012 they have carried 111,117 TEU by rail (showing doubling in a five year period). Based on the Statistics Lithuania (2013), Lithuanian international railway volumes were roughly 75,000 TEU in the year 2012 (showing rather similar growth with Latvia). It should be noted that former Soviet economies have grown substantially in the recent decade, and the Russian retail sector is one of the most important in Europe. For example, in sales of new cars, Russia is nowadays larger than France, and lacking just slightly behind Germany (Oica, 2013). Furthermore, the capital of Moscow has been listed as one of the most expensive cities in the world for years.

There are many possible constraints that Estonian container transit traffic faces currently or could face in the near future. Direct rail line between Estonia and Central Europe is not used due to different hindering factors. These are e.g. different gauge widths along the route (standard of 1435 and Russian of 1520 mm) and numerous countries, with their own characteristics. In addition, sea and road transport modes are efficient and in many cases less expensive alternatives. Furthermore, Estonia's location next to Russia could have some influence on their transportation market due to the regulations of Russia.

The study is accomplished as a case study. Both authors of this article have made one-week long visits in Tallinn during different time periods (first in November 2013 and second in March 2014). Case study is based on interviews and meetings with local logistics professionals and observations during these visits. Research questions for this article are introduced below:

1) How has transit traffic developed in Estonia during the last two decades?
2) How has container traffic been developed by rail transport during the last two decades?
3) What is the future outlook regarding border-crossings, transit traffic and rail transport mode in Estonia?

We are interested in how transit traffic has developed in Estonia during the last two decades and what has been the main driving factor of this development. In addition, container traffic development by rail and the reasons behind it are the focus of this research. Future estimations regarding border-crossings, transit traffic and rail transport in general in Estonia were studied. Two of the first research questions are researched mainly with a literature review and statistical analysis. The third research question is researched through the case study in the empirical part of this article.

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1.1. Global retail trade development

Global retail trade has been under tremendous change in the last ten to fifteen years. New markets have emerged, and retail trade growth is mostly located in Asia, and particularly today in China (Ben-Shabat, Moriarty, Rhim, & Salman, 2014). In Europe, it has been Russia, which was in a similar favorable position earlier. Domestic and local retail chains held market dominance in Russia during the early 2000s (Lorentz, Häkkinen, & Hilmola, 2006), but nowadays the market has internationalized considerably by the entrance of French, German and Turkish retailers (Lorentz & Lounela, 2011; Roberts, 2005). Based on AT Kearney's Global Retail Development Index, Russia was very favorable for retail market expansion in the early 2000s, and had the number one rank in AT Kearney's index during the year 2004 study (ATKearney, 2004). In the following years (until the year 2009) ranks were still very high, varying between two and three. However, position dropped to rank ten in the year 2010 study (Ben-Shabat, Moriarty, & Neary, 2010), and was as low as rank 26 in the year 2012 (Ben-Shabat, Moriarty, Rhim, & Salman, 2012). This all reveals that the retail sector has grown considerably during the recent decade, and consumption is maturing. Based on Russian Federal State Statistics (2014a), retail trade has grown by nine times in Russian national currency (RUR) terms from the year 2000 to 2012, while wholesale trade has recorded tenfold growth. Despite that the Russian retail market is maturing, its sales volumes are increasingly less dynamic than before. On the other hand, online retail is growing within significant terms (Ben-Shabat, Moriarty, & Nilforoushan, 2013). This all means that the consumption base will remain high in the forthcoming years, and will even show some growth. As Russia specializes in raw material exports, it means that the import of consumer items with containers will show growth for years to come. This is good news for neighboring countries located within the main container routes such as all three Baltic States and Finland (Hilmola, Tapaninen, Terk, & Savolainen, 2007). However, most of the Russian container volume is currently handled within the Port of St. Petersburg, which is located on the European side on the coast of the Baltic Sea.

1.2. The Russian and East European container market

Russian and further the eastern consumer and container market has grown substantially over the years, mostly because of a growing consumer sector. In Fig. 1 this is being illustrated with container handling growth within the Port of St. Petersburg, which was in the year 2001 at the level of 330,000 TEU and eleven years later has grown up to 2.5 million TEU. Over the years, Finnish transit container amounts were firstly growing rather consistently until the crisis year of 2009, when half of the demand just disappeared. Transit volumes have recovered a bit thereafter, but only within very limited extent. Share of Finnish transit containers from overall handling at the Gulf of Finland and its eastern demand (St. Petersburg seaport plus transit handling in Finnish and Estonian ports) has steadily declined in the entire observation period (share of over 42% from the Gulf of Finland container market in the year 2001, but within eleven years this has declined to below 10%).

What is interesting in Fig. 1, is the development of Estonian transit share and volume. These were in absolute numbers at a very low level in the base period, just above 7000 TEU. However, over the years this handling consistently grew to over 50–60,000 TEU in 2013 (Statistics Estonia, 2014).[1] Market share of Estonian container handling is also on an increasing path, and at the end of the period the market share was 1.8%. Estonian growth is and was driven by consistent development of railway block train services to reach eastern customers (e.g. final destination in Moscow region). This service is more attractive due to unbeatable border-crossing processes between the European Union and Russia (in this case Estonia and Russia) as border-crossing formalities and paper work is being completed before a railway journey starts. Therefore, there is no waiting at the border as compared to days of waiting in the case of road transport (not only in Estonia, but also considerable delays occasionally in Finland). Truck handling capacity is also severely limited between Estonia and Russia, which was a major constraint for growth in the pre-year 2007 era (Hilmola et al., 2007). Fig. 2 illustrates Estonian railway container volume development in total (most of these are transit export of full containers to the East and returning empty containers). As could be noted, recession and the global crisis in the year 2009 had very small effects on container volumes. Actually, Estonia recorded the lowest decline in transit volumes from all three countries within the Gulf of Finland. This is rather typical for a niche strategy, when a valuable and unique set of service offering is being developed and delivered to markets. On comparison, depicted volume developments of container transportation by road and rail transport modes are illustrated in Fig. 2 — much lower growth trajectory is apparent by road after the 2008–2009 crisis and clear downturns in 2002 and 2009. Overall, truck transport still dominate in the seaport related logistics, but the market share of railways from all containers handled at seaports has more than doubled in the observation period up to 20%.

Railway transport shares of total hinterland transportation were collected and examined from the time period of the previous five years (in the case of Russia, only four years were available), and this examination reveals significant differences between the three countries in question (Estonia, Finland and Russia). From Finland we could not find reliable and publicly available data from import transit containers by rail to Russia, but total sum in tons from transit import cargo was available at the Statistics Finland (2013). This amount was summed together with the Finnish Customs (2013) data from road transit transport to find out the total market of hinterland transport modes (some seaport transshipment also takes place, but it could not be considered as hinterland). This estimation gives 10% share for rail transport in the five recent years (2008–2012). In reality, container volumes could be even lower than this amount. In Russia, aggregate share of railways on seaport imports from the last four years was 25.8%. Only Estonian market shares of rail are calculated from transit container amounts, but this country holds an exceptional share, which is 53.8% in the last five year period. Actually, Estonian railway share has increased above 60% in the year 2012. In reality, this number could be even higher, since railway statistics and seaport statistics differ a bit in the Estonian case (railways carry transit containers typically more than what seaports actually report to have handled themselves). This analysis further supports the assumption that the niche market of railway container transports is the key reason for the robust performance of Estonia in the recent years. In the case of Finland, transit transportation is too dependent on road transport, which is known to be a much higher cost alternative, which will be hurt the most in the case of economic crisis. Railways are considered to be in much better shape infrastructure wise also in the Russian environment (Schwab, 2013), and railway reforms have made the sector increasingly more market oriented, lower cost and a real alternative for road transport in a country of long distances (see e.g. Laisi, 2013; Laisi & Panova, 2013; Henttu & Karamysheva, 2013).

Research work is structured as follows: Case study research method is being introduced in Section 2. Our case study findings are reported in Section 3. Discussion follows in Section 4. Finally in Section 5, we conclude our study and propose avenues for further research.

2. Methodology

Three traditional research strategies based on Hirsjärvi, Hurme, and Sajavaara (2004) are experimental research, survey research and case study. Case study was selected as the main methodology for this article, since it gathers detailed data regarding a certain subject (Hirsjärvi et al.,

[1] Volume depends on what statistics are used. Original transit statistics of seaports argue that the transit container amount is 51,500 TEU, while other statistics show more than 60,000 TEU (Statistics Estonia, 2014).