

Transport and Telecommunication, 2009, Volume 10, No 4, 4–7
Transport and Telecommunication Institute, Lomonosova 1, Riga, LV-1019, Latvia

PRESENT SITUATION OF HEAVY GOODS TRAFFIC IN LITHUANIA

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The article describes the heavy goods transportation situation in Lithuania. The emphasis is placed to determine the reasons which cause the problems of heavy goods transportation. Shippers and the transport companies which are organizing heavy goods transportation confront with the shortage of especial vehicles and handling equipment, high cost of transportation, high charges, imperfect legal base and awkward behaviour and bureaucracy of governmental institutions.

Keywords: heavy goods, transportation, costs, transportation environment

1. Introduction

During the last decade Lithuania implements economic reforms, which aim – to consolidate the state and to create Lithuania's economy competitive in world markets. Restructuring and strengthening processes of transport, industrial and energy sectors also make changes in goods and services markets. The economy of Lithuania is highly dependent on the existence of freight network capable of efficiently moving raw materials, components and finished goods from the point of manufacture and supply to the final customer. The multivariate nature of customer service and different requirements of specific markets is essential for any business to have a clearly identified policy towards customers' service. Therefore, the transport companies which are organizing the international and local cargo transportation are trying to provide their clients' safe and fast transportation service.

The most important factor affecting the quality of transportation heavy goods is security. The quality of transportation of such goods is related with companies' ability for quick and cost effective transportation process. This result can be achieved with efficiently working employees, customized vehicles and suitable transport infrastructure for transportation heavy goods.

2. Current Situation of Heavy Goods Transportation in Lithuania

Technological and industrial development is very often connected with the heavy goods transportation. International and local transportation of heavy goods is regulated of set of legal acts.

Transportation process of heavy goods consists of acceptance of the cargo from shipper, transportation and its delivery to the customer. Also this process is related with the route selection, acquisition of permits, loading, reloading and unloading processes and temporary storage if it's necessary. It is important to define the particularity and the technical characteristics of heavy goods. Heavy goods can be classified as oversize and heavyweight. Oversize is determinable by standards and assessment of transport infrastructure which is used for goods transportation. Infrastructure consists of road equipment, buildings, various signs and other road infrastructure elements. Therefore, transport mode infrastructure determines what goods can be transported with the smallest negative impact to it. The standard size of vehicle is settled by the legal acts for the each transport mode. The other situation is with the term of "heavyweight". The road vehicle is identified as heavyweight when the total weight of it (with cargo or without it) is more than 40 tones or maximal load on at least one axle exceeding 10 tones. Definition of "heavyweight" may be amendment frequently. It could be changed by the laws.

Transportation of heavy goods by road is very expensive, because:

- Road technical characteristics often are not appropriate for transportation of goods;
- It takes quite long time to get needful permits;
- Costs of permits are quite high;
- It is difficult to find appropriate technical devices for transportation.

Currently in Lithuania cost of heavy goods transportation permits is quite high and many companies are risking transporting such shipments without permits. In Lithuania it is possible to transport

goods without special permits if the vehicle satisfy EU requirements (height – 4 meters, width – 2,55 meters, overall length – 16,50 meters, total weight – no more than 40 tones).

Lithuania State Road Transport Inspection inspectors in 2008 (March 1–31) weighed and measured 76 vehicles, of which 19 exceeded the allowable total weight, 21 exceeded the axle (s) load, 16 vehicles exceeded the maximal overall length. In 2009 (March 1–31) were weighed and measured 446 vehicles, of which 12 exceed the allowable total weight, 13 exceed the axle load, 5 vehicles exceeded the maximal overall length. The drivers of these vehicles paid penalties. Inspection results show that the penalties for heavy goods transportation is much lower than the costs of the permits. Number of the permits which were given to the transport companies for the transportation of heavy goods is shown in the table 1.

Table 1. Number of permits for heavy goods transportation

Year	Number of given permits
2007	5340
2008	7351
2009 (within 8 months)	3919

Each heavy goods transportation case is unique. 13,6 meters long trailers not always could be used for transportation. It's necessary to have special longitudinal or humiliated trailers. Commonly Lithuanian carriers are transporting:

- Reinforced concrete (beams, slabs, columns etc.);
- Industrial equipment;
- Heavy machining equipment, tractors;
- Various size liquid containers;
- Metal or wood constructions;
- Wind turbines.

If the heavy load shipper or transport company is planning to transportation heavy load it must collect such information:

- Total weight (vehicle + cargo);
- Loaded vehicle dimensions;
- Load weight;
- Route;
- Number of vehicle wheels and axles;
- Axle loads;
- The largest single axle load.

During the transportation of very heavy and oversize goods it is necessary to have escort, specially prepared vehicles in front and in the back of the truck. The route of transportation must be examined in detail in order to avoid potential negative obstacles to the heavy cargo during the transportation process. In some cases, tracing of cargo may be accompanied by several police officers.

Many Lithuanian carriers are refusing to transport heavy goods for these reasons:

- Shortage of equipment for transportation such loads;
- Complicated legal regulation, quantity of documents;
- High own transportation costs;
- Staff incompetence or lack of experience;
- Additional time costs;
- Insufficient heavy goods market.

On the other hand, describing the current heavy goods transportation process it's possible to distinguish three integrated environments. Analyses of these environments, which directly affect transportation process of such loads, describe main problems of such transportation. The existing heavy goods transportation organization model is presented in figure 1. Relations between the elements are shown in figure 2.

In the Fig. 2 arrows indicate the links between cells, which shows that these environments are interrelated and can not be distinguished. The largest influence on other elements of the environment has legislative instruments. In particular, they set and coordinate institutions activities, permits acquisition, definitions of “oversize” and “heavy goods”.

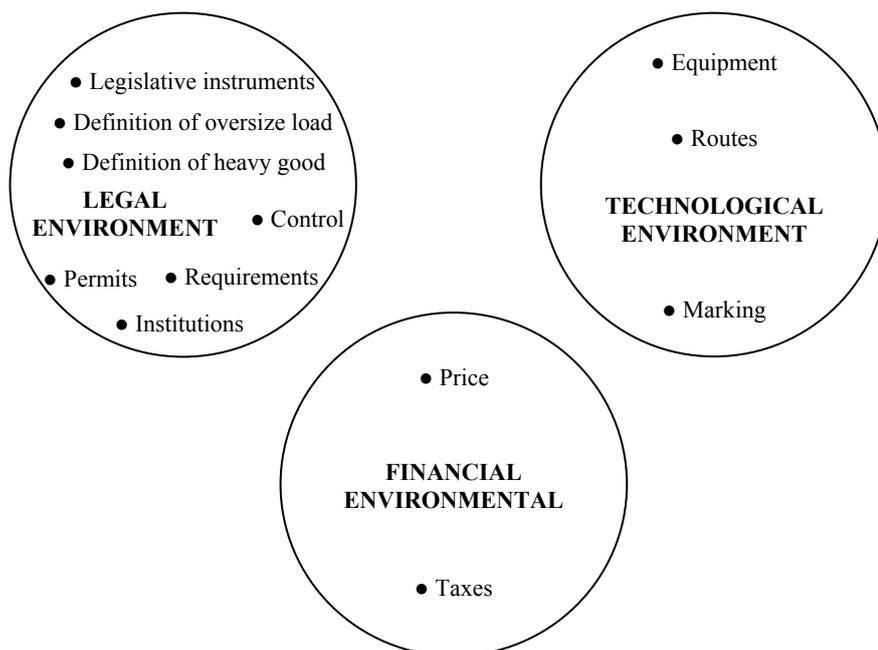


Figure 1. Existing heavy goods transportation organization model

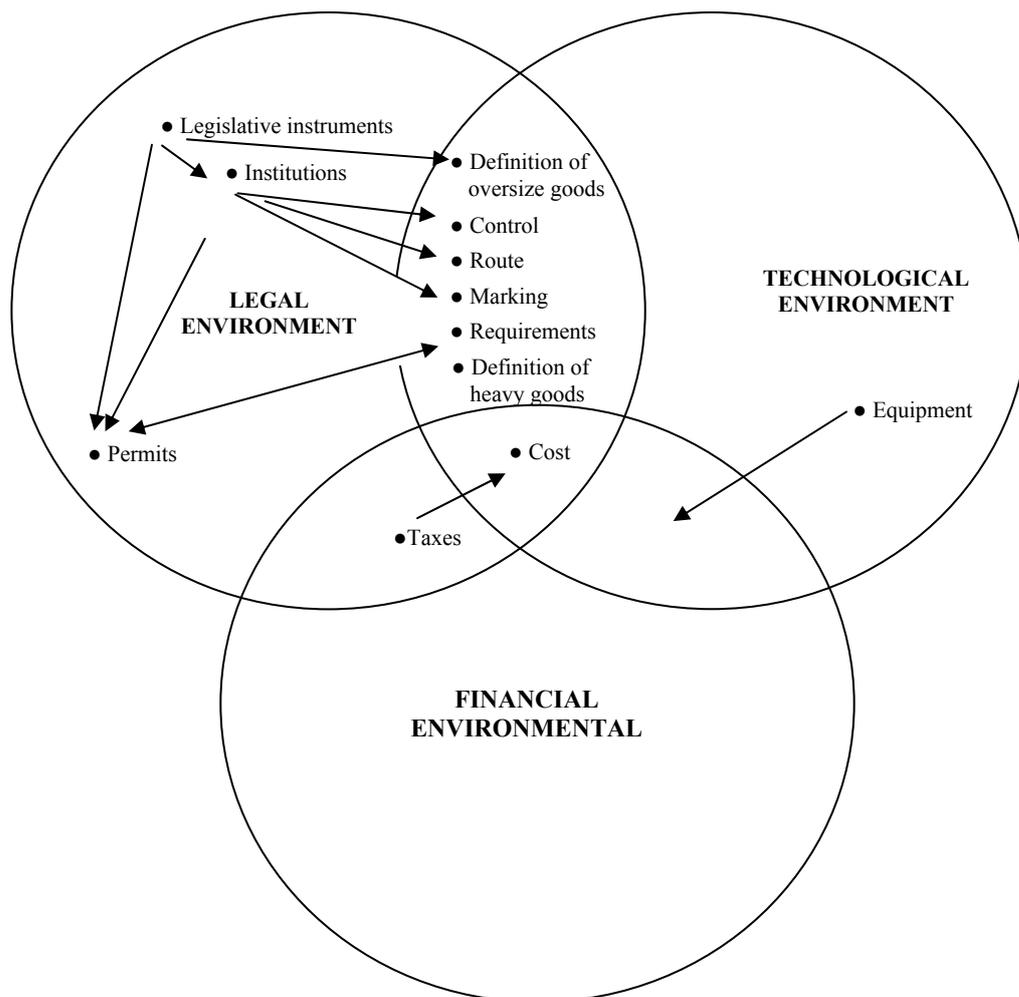


Figure 2. Environment of heavy goods transportation constituent elements and relations between them

Common to all three environmental elements, is price. The transportation cost of heavy goods consists of transportation cost profit which company expects to receive. Price is related to technological environment. Special equipment for transportation heavy goods is very expensive and it also influences the final cost of transportation. Taxes, which company should pay for transportation of heavy goods, are also one of the components which influence the cost of transportation. Therefore, it can be argued that the cost is related with the technological, financial and legal environments. It is identified, that in Lithuania heavy goods transportation cost mostly depends on legislative instruments.

3. Prospects of Heavy Goods Transportation in Lithuania

Transportation of heavy goods in Lithuania has scarcely ever been analyzed. Technological, industrial development is an integral part of heavy goods transportation. Currently is very important for Lithuania to find a solution and the best transport corridors for heavy goods shipments from West part to the East part of the country. Plans of new nuclear power stations in Lithuania and Belarus building and projects for network of wind turbines as alternative energy source will influence in heavy goods transportation increase in the nearest future. That's why it's necessary to make deep analysis of Lithuania transport system (Klaipeda seaport, railways, road transport, internal water transport) and inspect all possibilities of transportation such oversize loads.

Usually heavy goods to Lithuania are delivered by sea. The first point which is important for such shipments is Klaipeda sea-port. From sea-port start all other transport modes, which could be useful for carrying not standard loads. The possibilities of transportation of heavy goods by road, railways, inland waterways and trans-shipping of the heavy goods in Klaipeda State Seaport must be inspected. This analysis will help to find the best solution how in cheapest way to transport heavy goods using possibilities of multimodal transport operations.

4. Conclusions

1. The quality of heavy goods transportation is related with companies' ability for quick and cost effective transportation process.
2. The cost of heavy goods transportation is related with the technological, financial and legal environments.
3. It is identified, that in Lithuania heavy goods transportation cost mostly depends on legislative instruments and juridical basis.
4. Currently for Lithuania it is very important to find solutions and the best transport corridors for heavy goods transportation from West part to the East part of the country and for the transit to Belarus and Poland.

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