World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:14, No:12, 2020

The Effects of Logistical Centers Realization on Society and Economy

Authors: Anna Dolinayova, Juraj Camaj, Martin Loch

Abstract : Presently it is necessary to ensure the sustainable development of passenger and freight transport. Increasing performance of road freight have been a negative impact to environment and society. It is therefore necessary to increase the competitiveness of intermodal transport, which is more environmentally friendly. The study describe the effectiveness of logistical centers realization for companies and society and research how the partial internalization of external costs reflected in the efficient use of these centers and increase the competitiveness of intermodal transport to road freight. In our research, we use the method of comparative analysis and market research to describe the advantages of logistic centers for their users as well as for society as a whole. Method normal costing is used for calculation infrastructure and total costs, method of conversion costing for determine the external costs. We modelling of total society costs for road freight transport and inter modal transport chain (we assumed that most of the traffic is carried by rail) with different loading schemes for condition in the Slovak Republic. Our research has shown that higher utilization of inter modal transport chain do good not only for society, but for companies providing freight services too. Increase in use of inter modal transport chain can bring many benefits to society that do not bring direct immediate financial return. They often bring the multiplier effects, such as greater use of environmentally friendly transport mode and reduce the total society costs.

Keywords: delivery time, economy effectiveness, logistical centers, ecological efficiency, optimization, society

Conference Title: ICSRD 2020: International Conference on Scientific Research and Development

Conference Location : Chicago, United States **Conference Dates :** December 12-13, 2020