

# Identification and Analysis of Risks in Transport Chains

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**Abstract**—By the impact of globalization on the economic sector, and thus on traffic, transport networks are becoming more complex. This leads to a significant connectivity and interdependence of transport chains, which are a series of links and operations that must be performed in specific order to achieve and ensure an optimal flow of goods between the end raw material suppliers and end-users. They can be shown as a complex system which consists of two subsystems, or of the transport process subsystems and transportation process subsystems. These subsystems have their technical, technological and economic characteristics and as such must be synchronized throughout the entire transport chain, regardless of the type of transport chain in question. The complexity of the transport network has changed historically, so there has been a change in the structure of transport chains and an increase in the number of risks that have an adverse effect on the optimal functioning of the transport chains.

To minimize the adverse effect of risk on the efficient functioning of the transport chain, companies are taking a number of steps by which the optimization of transport chains can be carried out. One of the most important and initial steps is the identification of risks, so the companies can be able to choose appropriate methods for risk management in the transport chain.

In this article the identification of risks that are occurring along the transport chain will be shown. Also, the analysis of identified risks will be conducted, according to their impact on the optimal functioning of the transport chain.

**Key words**—analysis, identification, management, risk, transport chains.

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