
Editorial

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Supply chain management has become a primary business process and source of competitive advantage of many world-class enterprises (Carter and Rogers, 2008; Abbasi and Nilsson, 2012; Jia et al., 2013). The central task of supply chain management is the control of different interrelated processes within a particular business entity and between distinct enterprises joining their forces to satisfy final customer needs (Croom et al., 2000; Abdallah et al., 2012; Bellamy and Basole, 2013; Alexander et al., 2014; Meidutė-Kavaliauskienė et al., 2017). These processes are the means by which products

are developed, manufactured and delivered to customers and through which the continuing service needs of those customers are met (Handfield et al., 2005).

In the past, the core means of achieving a competitive advantage were often presented as the 'four Ps' – product, price, promotion and place. However, nowadays these should be replaced with the 'four Rs' – reliability, responsiveness, resilience and relationships. There are many reasons for this change: information technologies are offering new opportunities; world trade volumes (as well as transportation distances) are growing; new markets (and uncertainty of product demand) are developing; relative costs of services are changing; and concern for the environment is increasing (Albino et al., 2002; Handfield et al., 2005; Pathak et al., 2007, Giannakis and Louis, 2011, Koptak et al., 2017; Rita et al., 2018). In the light of the above mentioned changes, such critical issues of global supply chains as security, quality and sustainability are becoming more and more important (Dekker et al., 2012).

The issue will deal with the vast range of interrelated topics that fall under the category of the supply chain management. The main aim of this special issue is to present the most cutting-edge theories and best practices leading to more reliable and efficient performance of global supply chains.

The authors Liebuviienė and Čižiūnienė analysed transportation process and ecological pollution problems in the paper 'Ensuring ecology of cargo transportation by road transport'. Authors note that mobility, speed and transport safety of the transport unit are indispensable features in today's world, but the high volume of freight transport in the world also creates a high volumes of freight transport contribute to relevant ecological issues and pollution. Transport ensures the flow of materials and provides people with amenities, however transport is a major source of danger to people's health and life due to the emission of harmful pollutants. The composition of the exhaust gases of internal combustion engines depends on the composition of the fuel in terms of its quality and the engine's technical state and mode of operation. There are over 200 chemical compounds in the car transport bombs, many of which are harmful to humans, biospheres. Transport emissions: carbon monoxide, nitrogen dioxide (NO₂), hydrocarbons, aldehydes, particular matters and so on. The listed pollutants cause global changes in atmospheres that contribute to the formation of ozone holes, global warming, or flooding. Liebuviienė and Čižiūnienė analysed the negative impact of transport on the environment, and evaluated the hypothetical transport process using an electric truck in a steel pipe carriage.

Džubáková claims that in the past decade the environmental thinking incorporated all stages of the supply chains – product development, product design, material sourcing and selection, manufacturing processes and services, logistics processes, as well as the end of life management of the product after its useful life. Environmental performance appeared as a key competitive differentiator in the global market driven by increasing customer awareness and legislation pressure. The author in the paper 'Adoption of voluntary environmental tools in Slovak Republic – focused on ISO 14001 and EMAS' analysed the adapted instruments of voluntary environmental in enterprises of Slovakia (small, medium-size, small and micro) with focus on ISO 14001 and EMAS, to identify the underlying factors that influence the use of environmental tools, and to evaluate their impact on increasing the ability to compete with other entities in their field. Džubáková supposes that the use of voluntary environmental instruments is growing, because they improve organisation's image, create market-related advantages, reduce administrative

burden, enable participation in domestic or transnational contracts, improve relations with the state and the state administration and has a positive impact on economic results.

Davidavičienė, Davidavičius and Kaušinis in the article 'Consumer dissatisfaction structure – e-logistic perspective' state that e-supply and e-logistic chain is not an exception as a phenomenon since it changes and matures in stages. The needs and requirements of e-commerce logistics became one of the most important drivers for logistics and physical distribution networks to change. Over last decades, this area changed dramatically. Now, with the growth of e-commerce, most of the shippers are just starting to develop their own distribution network infrastructure. Since 2000, e-commerce started to expand rapidly with the online-only retailers, which enabled establishing e-fulfilment distribution networks. Certain products specifically bring additional challenges for e-commerce and e-supply chain. For example, e-commerce of food or medical products. These two different product groups make a perfect example of e-commerce challenges. E-commerce of medical products lack behind and the reason is that huge part of medical products needs recipes, and healthcare system (e-health) in country should be prepared (like e-recipe). Such decisions in EU countries are quite new, so e-commerce of medical products brings new type of risks for producers, suppliers, medics and citizens. Davidavičienė et al. give special attention to e-commerce because with the growth of e-commerce, most of the shippers, especially multi-channel shippers, are just starting to develop their own distribution network infrastructure. Since 2000, e-commerce started to expand rapidly with the 'pure-play' (online only) retailers, which enabled establishing of e-fulfilment distribution networks. The specific character of certain products brings additional challenges for e-commerce and e-supply chain.

In the article 'Challenges for automatic identification systems in the supply chain' Hruska, Svadlenka and Jurankova described the most often used automatic identification systems that contribute to more effective information flow between individual elements of the supply chain. The authors describe a potential way of integration of technologies automatic identification and data capture (AIDC) across the supply chain.

In the article 'Managing firm's logistics and knowledge: the value concept', Solem and Liyanage examine interrelationships between logistic and firm's knowledge management from a value concept. The authors assume that a value concept is a useful tool to ascertain the contingent factors of logistic knowledge and the firm's overall knowledge and how they are interrelated. They asked the question: what happens to a firm's logistic operations and knowledge resources when it decides to outsource business functions? So, this paper draws upon logistics, supply chain and knowledge theories to introduce a conceptual framework of firm's logistic and knowledge value. Using a value concept, our analysis offers insights for managerial practices and an agenda for future research for a deeper understanding of the connection between logistic and knowledge management functions and the effects of outsourcing of logistic knowledge to the overall value of knowledge.

The last article of this publication 'Risks of illegal migration and associated damage to transport companies. The case of the corridor France – United Kingdom' which is authored by Vasiliauskas, Vasilienė-Vasiliauskienė, Meidutė-Kavaliauskienė and Lietuvnikė concentrates its attention on the problems of migration. The authors state that there were over one million unauthorised immigrants, refugees entering Europe in 2015. A long-time frame for assessing asylum applications or frequent rejections, encourage refugees to migrate illegally by intruding land vehicles to cross the border of their chosen

European country without being noticed. The intrusion of illegal immigrants into road freight vehicles to cross borders without being noticed has caused a great deal of damage to the international freight transportation companies. As the authors said, this article presents results of the study aimed at assessing problems caused by illegal immigrants to European road freight transport companies operating in the corridor France – United Kingdom.

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