MODERN LOGISTICS TRENDS

Doc.dr. Jasmin Jusufranić, email: j.jusufranic@gmail.com

Abstract: *Modern market trends in developed countries directly affect the design, planning and design of transport systems and technologies, storage, loading, ordering, packaging and other logistics activities. The economic system under the heavy action of the market in terms of quality logistics services and logistics costs, subject to changes to the application of new trends and strategies, including changes and adapting the structure of the logistics system and continuous training of professionals who are able to apply the new logistics technology. By applying the principles of logistics and new trends, expansion of logistics knowledge and application of relevant technologies and quality management systems, as well as other logistics tools have been developed and new forwarding strategy. In this article we will focus on condensed explication of only some modern logistics trends.*

Keywords*: logistics, freight forwarding, trends, strategy*

1. INTRODUCTION

Logistics is a key factor in the development of successful companies of both national and international associations. Logistics is present in industrial, commercial, logistic companies (transport, freight forwarders, ports and other companies) and in service companies in the field of catering, tourism, medicine, publishing, banking, military, sports and the like. Logistics and SCM[19] are in the focus of the interest of developed countries, so logistic processes and systems of ordering, packaging, storage, transhipment, transport and stockpiling are subject to continuous improvement. In short, logistics deals with the organization, planning, control and realization of commodity flows from the place of origin to the place of sale of goods, through production and distribution, in order to meet the market demands with minimal costs.

Logistics, as a concept, the scientific field and micro and global system has its own evolution, and today's phase gives an indication of the future by combining increasingly smaller and more frequent logistics flows with the goal of reducing inventories, creating logistical profit systems through: outsourcing processes, specialization and expansion of assortment of services, designing new logistics centers, logistics and supply networks with a wider range of activities and participants, development and
the application of automated and advanced IT systems, the formation of alliances by geographical,
technological and interest principles and other affinities, the creation of supply chains with strong performance of flexibility, transparency, security, economy and sustainable development, and through the education of a new profile of experts with general and specific, multidisciplinary and interdisciplinary knowledge.[20]

[19] Acronym from Supply Chain Management

[20] See Zecevic, S. and Gojkovic, P .: Logistic Trends, Proceedings of the First International Scientific Expert Conference of Logistics, 2010, Faculty of Transportation Doboj, University of East Sarajevo, 2010 p. 1.-10.

2. GLOBAL LOGISTICS TRENDS

Over the past 20 years, in developed economies, there has been an expansion of all logistical activities, which is a consequence of many trends in the global, highly competitive economy. The group of authors[21] lists two trends: 1. cutting costs in the procurement and distribution of goods through reducing the number of manipulations (storage, transhipment, pre-packing, etc.), which requires the concentration of these operations to a smaller number of specialized operating centers, and 2. a trend of outsourcing We'll talk later. These two trends open a new space for the further development of logistics logistics operations, where a large service market opens, where freight forwarders should offer their own solutions, infrastructure and know-how.

In recent years, trends suggest that freight forwarders, as transport architects, are expanding their traditional business more and more intensively for additional logistical activities for the needs of companies, from which they take orders for the storage and distribution of goods and financial means for its procurement.[22] The second source45 lists the trends that characterize the development of logistics in the world, such as the introduction and implementation of new logistics strategies, the formation and construction of logistics centers and networks, the development of logistics technologies, the training of logistics experts, and the establishment of logistics companies and associations. Otherwise, within the freight forwarding, as activities and sciences, there are mainly discussed some important strategic logistical dilemmas, for example: production by order or stock, outsourcing or insourcing, centralization or decentralization, and make or buy strategies, or strategies to produce or buy.
On the other hand, according to the group of authors[23], the logistics strategy determines the links in logistics chains, the configuration of logistics information systems, logistic functions, the organization, management, management and functioning of the forwarding company, the network of business units in the country and abroad, the type of logistics services, then influences the choice forwarding, ie logistical capacities and the choice of technologies that enable goods flows and determines basic profiles of freight forwarders and all types of managers. Also, since the shipping companies of the transition countries in the shaping of their business policies are under the strong influence of the globalization and economic policy of the European Union, they should opt for a national, international, European, transit, overseas, partner or some other logistics strategy. Otherwise, in the literature, usually under different names, the following modern logistic trends are listed, which will be individually and briefly explained below:[24]

1. Push and pull logistics;
2. Logistic outsourcing;
3. Hub and gateway terminals;
4. Cross docking terminal;
5. Dry port and offshore terminals;

[21] Ivaković, Č. and Šafran, M. & Stanković, R .: A review of the operations of the international freight forwarder in the European Union, Transport & Logistics, bi-monthly magazine for transport and logistics, year 2005. number 3. p. 38.

[22] Poletan Jugovic, T. and Jurcic, J: Logistic forwarding operator as a perspective of the classical freight forwarder, Pomorski zbornik, year 43. (2005) number 1. p. 151.-163.

[23] See more at Deljanin, A .: Logistics in Transport and Communications (Part I and Part II), Faculty of Transport and Communications, University of Sarajevo, Sarajevo, 2009. Available at http://web.efzg.hr/ doc / market / lectures pl bj 11-12.pdf (March 25, 2016)

[24] Zecevic, S. and Gojkovic, P .: Logistic Trends, Proceedings I. International Scientific-Professional Conferences Logistics 2010, Traffic Faculty Doboj, University of East Sarajevo, 2010. p. 1.-10.

6. Speedport container terminal;
7. Underground logistics systems;
8. Green supply chain;
9. Education of logistics experts. And similar!

2.1. Push and pull strategy

The push-to-load production is increasingly being replaced by a new pull-strain strategy that assumes the supply of customers, consumers and customers. This is a timely access to information from the point of sale (PoS)[25], which enables the reengineering of the production and distribution process. Hence, the distribution of goods according to the production system for supply is based on inventory or pushed logistics, while distribution in the production system is on order basis based on trained logistics. In push products, products are pushed out of distribution plants based on sales forecasts, and stocks are held to satisfy estimated customer requirements, while the pull system involves the collection of market data and the product is delivered on the basis of actual customer requests. The pull strategy for the pull strategy is supported by integrative processes in the supply chain, that is, the emergence and development of new coordinators and logistics integrators[26], whose task is to improve, optimize and rationalize supply chains.

While the push system involves a limited degree of integration of suppliers, manufacturers and distributors, the pull system integrates the system to achieve a higher level of efficiency. In practice, the most commonly combine strategies of pushed and drawn currents, and for (usually the initial) parts of the supply chain, flows can be guaranely oriented, and for other (usually end-to-end) parts of the supply chain, more often, the strategy of traction flows is used. This is achieved by the production of a larger product series in the first stage, so that they are then distributed according to user requirements. The reverse cases are possible, when they are drawn in the initial stages, and in the final stages of the gurani
flows in the supply chain. A point in which the strategy of the pushed and drawn currents collides
known under acronyms of PPB[27] or I / OI[28]).
The decision on the border of pushed and towed streams and the choice of logistics strategy depends on several factors (product characteristics, specific delivery requirements, market conditions and other external influences). The choice of the strategy or the stock holding location affects operating costs, response time, demand, and flexibility to change requests. Distinguishing the strategies of pushed and trailed flows can be done on the basis of volume and level of predictable requirements.
The push flow strategy applies to commodity flows of larger volumes and less predictable requirements, while the strategy of traction flows is applied in conditions of realization of smaller volumes and a higher degree of predictability of requirements. Between these extremes there is a field of combined strategies.

2.2. Logistic outsourcing

Outsourcing is the shift of jobs that are outside the core business or the company's main competencies, or the use of specialized companies for the realization of jobs previously performed by own employees to internal resources. Thus, the parent company concludes long-term outsourcing cooperation with an outside company that will perform some logistical business processes for it. If a company performs logistic activities cheaper than when it leases someone else for their

[25] Point-of-Sale
[26] Logistic Outsourcing
[27] Push and Pull Boundary
[28] Inventory/Order Interface

realization, it should remain within the company, and it is designated as insourcing. However, if companies pay more to hire someone to carry out logistics activities, they need to opt for outsourcing.

In fact, outsourcing is the purchase of logistics services from specialized companies, or from external sources (out + source). Logistic service providers are called logistics providers, and they are now staff, material, technological, organizational, financial and in other ways sufficiently teamed and trained to provide a complete logistic service. The evolution of logistics outsourcing increases the number of services left to providers and the growth of logistics partnerships between clients and providers, that is, between logistics freight forwarders and users of logistics services. The trend is that freight forwarding companies, as carriers of logistics services, are taking more logistical activities from users within the outsourcing partnership. Otherwise, the development of the logistics provider itself is intensified, which was happening through
several characteristic phases, as follows:[29]

■ **1PL - First party logistics, in-house logistics or insourcing logistics:** It is logistics in the home of the user, because the company itself carries out almost all logistic activity with the minimal engagement of the provider and has its own transport, storage, loading / unloading machinery and human resources for execution logistics activities.

■ **2PL - Second party logistics:** The company engages a provider that only realizes it
traditional logistics functions - activities such as transport, shipping and storage, and all in order to reduce costs or investments.

■ **3PL** -Third party logistics: Logistic activities or the entire logistic process for the company
is performed by the provider with whom the company signs the contract for a longer period of time, because the provider offers a broader range of services, and apart from the realization of logistics activities, the exchange of information, risks and benefits between providers and the company is emphasized.

■ **4PL** -Fourth party logistics: The provider manages the complete supply chain of the company over a longer period of time, which is a consequence of the association of 3PL providers with information technology and management companies and the management of business activities.

■ **5PL** -Fifth party logistics: It is a form of cooperation between the company and the provider, and it was developed for the needs of the e-commerce market of the company. As specialized providers of logistics services, providers take up an increasingly important place and
Greater participation in the logistics market. However, users expect the logistics services offer to be improved through the integration of different participants in the system of providing complete logistics services, so providers should have at least a range of basic services (transport, storage, packaging, etc.) with the aim of a complete logistic service, have to be oriented to certain economic sectors and areas, they must have good geographical coverage and all elements of the business infrastructure must be established, and they need to have modern logistic technologies that can be easily integrated into the user's business

[29] See Jusufranić, I.: Modern trends in transport, logistics and ecology in the function of sustainable development, Proceedings of the V. International Counseling: Modern Trends in Traffic, Logistics and Ecology in Function
sustainable development (pp. 14-31), International University of Travnik and Faculty of Traffic Sciences of the University of Zagreb, Travnik, May 2014. Or in Deljanin, A .: Scripts from the Logistics in Transportation and Communications (I and II. Partial), Faculty of Transport and Communications, University of Sarajevo, Sarajevo, 2009. Available at http://web.efzg.hr/dok/trg/predavanja pl bj 11-12.pdf (March 25, 2016)

system. Users expect constant improvement of logistics services, and the relationship towards providers that are initially viewed as providers or resource managers is changing, to be viewed by users as logistics strategists (distributive or transport strategists). This orientation to users and the potential satisfaction of their wishes, demands and needs is the application of a new concept of logistics. However, the increase in competition and the increasing demands of users, clients, forced the company to focus its attention on the complete supply chain. Accordingly, some companies today extend the boundaries of the traditional supply chain, in order to house activities beyond the scope of their control, and the so-called " MBM[30], such as:[31]

■ **JSC:[32]** This is a service company with a larger number of owners and managers. This business
The model is designed to transform large volumes of flows and demands, which is usually the case
includes two or more companies that function in a strategic partnership with several smaller partners in order to fulfill all the required requirements.

■ **VNC:[33]** The model is based on an agreement between companies in order to ensure a unique one
value for a particular industrial requirement, so the supply chain is less linear and consists of a number of partnerships that can include financial services, insurance, and the like. The activities and interactions of companies in the network are based on a dynamic and flexible organization, and members can come out and enter again when they want to. The model assumes an efficient system for managing and measuring the performance and performance of each entity in the network.

2.3. Hub and gateway terminals

Cargo terminals, freight transport, logistic centers and the like represent one of the important components of logistics networks. In order to realize the changing demands of commodity flows in urban, regional, national and international areas, there are structural, technical, technological and organizational changes in logistics centers. This results in greater use and development of different terminals, of which they are particularly interesting so-called. hub and gateway[34] terminals. The Hub terminal has a central location with many input and output connections, while a gateway usually involves switching from one mode to another (for example, from maritime to land), and therefore has a tendency to be intermodal, while the hub has a tendency to perform transmodal operations (in the same mode of transport).

■ **Hub terminal:** It is a node terminal, ie the location of the largest concentration of flows and the widest supply of logistics services. It transports between smaller terminals from the environment, but also transports between the region. The emergence and development of the hub terminal functions to reduce the number of direct economically unjustified connections. By consolidating and consolidating flows in nodes, multiple effects are achieved for all participants in logistic networks.[35]

■ **Gateway terminal:** This is actually a special type of hub and spoke system[36] where we have a continuity of circulation in

[30] New Business Models
[31] See more at Gattorne J .: Living Supply Chains, Prentice Hall, London, 2006.
[32] Joint Services Company
[33] Virtual Network Consortia
[34] The term hub can be translated as: center or node, and gateway as: passage or gateway
[35] See more at Zečević, S .: Robni terminali i robno transportni centri, Saobraćajni fakultet Univerziteta u Beogradu, Beograd, 2006.
[36] System of hubs and arms.

the transport system for servicing supply chains. It represents the connection between the different systems, that is, the gate or passage of a particular system. Observed through the network of terminals, gateway terminals are mostly peripheral hubs through which the goods flows enter or leave the observed network or space, region, land, continent.

2.4. Cross docking terminal

The cross docking[37] terminal represents a transfer point between incoming and outgoing flows without long-term storage and retention of goods in order to reduce all manipulation and consolidation of goods flows from different shippers and their dispatch to recipients. Inbound flows from suppliers are directly transformed into supply flows for customers (customers), ie for storage, whereby the goods usually stay up to 24, often less than one hour. In this terminal, consignments are generally less than the car's cargo (so-called LTL[38]), so the goods are sorted and directly consolidated with goods from other suppliers for delivery to the customer and delivery
generally represents a full load of vehicles (the so-called FTL[39]). In addition to the benefits for the client (reducing manipulation costs, reducing inventory, reducing the required storage space, delivery speed, etc.), the use of Cross Docking Technology brings benefits and operators, through economies of scale in outgoing flows (from centers to customers), realization of business revenues and optimal utilization of storage capacities. From the above, it is evident that the role of freight forwarders, increasingly, overlaps with the role of the logistics operator, and in the foreseeable future, it is possible to expect the complete permeation of the functions of these subjects and their merging into the role of a single subject.[40]

2.5. Dry port and offshore terminals

Dry port and offshore[41] terminals represent new concepts of dislocation of logistics subsystems from existing ports to the continent (on land, hinterland ports) or to the sea (towards the sea, the ocean). These new concepts are the consequence of the characteristics and requirements of logistics flows and the limitation of port systems, and above all the trend of growth in commodity flows, the size of container ships, the difficult access to the coast, limited spatial possibilities for the expansion of port systems, the increase in the capacity and structure of the subsystems traditionally evolving in ports , a large number of road transport vehicles on the approach to port complexes, increasingly stringent environmental protection requirements, and the like.

■ **Dry port terminal:** It represents a complex of logistical activities and systems in the hinterland of the ports of the sea. The concept was developed in Spain, Italy, Portugal and France, and today it is present all over the world. The ports of the seas were once the central zones around which cities developed, and today they represent a major problem in terms of security, ecology, pollution, and space. In order to maintain high quality of service and meet the demands of ever-increasing goods flows, ports must be developed and expanded to new areas for the accommodation of facilities and equipment for loading, unloading, storage and other logistic activities, which conditioned the development of the terminal in the backyard that is connected with one or

[37] Cross docking
[38] Less Than Truckload
[39] Full Truckload
[40] See more in Zelenika, R .: Traffic Systems, Technology-Organization-Economics-Logistics-Management, Faculty of Economics, University of Rijeka, Rijeka, 2001. p. 159.
[41] Dry port can be translated as: dry port, and offshore like: offshore or coast and near the coast.

more ports by rail and / or road connections. The task of these terminals is to collect goods for longer overseas transport and its local, regional and international distribution, and they provide some additional services (customs clearance, storage, pre-packaging, data updates, information services, etc.). Therefore, these terminals are multimodal-oriented and have all logistical services, facilities and equipment that are needed by shipping companies and freight forwarders from the seaports.

■ **Offshore terminal:** The capacity of container ships is rising, and the hinterland infrastructure is not able to serve all the streams, so large container ships serve over several ports, and each entry in the port creates additional costs and affects the extension of the ship's time. Therefore, maritime companies have a dilemma: market coverage or operational efficiency. The use of an offshore terminal on the open sea reduces the number of ports for the megabody service, and increases the frequency and flow rate of the nearby ports, which can receive and serve smaller ships on shorter routes, and the offshore terminal will become the hub terminator for conventional, offshore ports. Therefore, solutions should be sought in the development of the terminal on the open sea, on artificial islands, floating systems, pontoons, platforms. On offshore terminals, large container ships (from 15,000 to 18,000 TFEU[42]) are transshipped to smaller ones that can be effectively serviced at container terminals on land.

2.6. Speedport container terminal

Speedport[43] terminal is the terminal of the future and a significant technological shift and novelty in comparison to today's maritime terminals, which are not the right technological solutions for the shipment of new generation ships (over 15,000 TFEU). Speedport reduces container handling times and makes it the fastest and safest system of manipulation in the world. In a simple straight-edged form, it has two port locations and two block container containers, and it can accommodate boats of varying sizes, as the construction of the pavement walls rises above the corner of the largest container ships. Transshipment of vessels, regardless of weather conditions, is enabled in the tunnel port. The warehouse block system of stacking of containers, without passage of transport manipulative mechanization and without roads, is threatened by walls and allows the container to be stacked into
nine levels. Access road and railways, as well as cargo handling areas, are denervated, which prevents crossing and obstruction of container flows. The concept of a transhipment system is based on an idea that resembles a spider's network, that is, a series of moving transversal consoles that cover the entire terminal system, and a large number of independent transport and manipulative units called spiders[44], which contain containers with special pliers, move on the network. The whole system is covered by a series of moving transverse consoles, so almost every row of containers on board can be operated simultaneously.

2.7. Underground logistics systems

Underground[45] logistic system is actually the concept of moving part of logistics activities, primarily transport, underground and the use of electric drives. This concept is perfected by all developed countries of the world, especially Japan, the Netherlands, America, Germany and China. Minimal negative impact on the environment (noise, pollution and gas

[42] Twenty Foot Equivalent Units
[43] Speedport
[44] Spider is a simple vehicle, weighing 20 t, designed to lift and transport containers of different lengths, and is equipped with a spider for catching up to 40 t containers.
[45] Underground

emissions are reduced), street network relieving, congestion reduction, lower energy consumption and lower CO2 emissions, increased safety, more rational use of space and so on, are just some of the benefits of using the underground logistic system of the Economic advantages of the underground system, however, include almost direct delivery, 24-hour service, low operating costs and a shorter implementation time for an individual request. Due to the fact that the system is closed, weather conditions do not affect the realization of the activities, and the dedicated infrastructure is suitable for the transport of dangerous goods. Since there is no access to the underground system during transport, there is less chance of damage to goods, which reduces the cost of insurance. Since the system operates underground or water silent and hidden, it is protected from the public, and vice versa. However, underground logistics systems require the construction of complete infrastructure, so large investments and a long implementation time are necessary. Otherwise, underground logistic systems in urban areas are used for the supply and delivery of goods to retail and catering facilities, clinical centers, various institutions and the like, which mainly relates to the transport of factory units of the size of the pallet. They are also used within or between industrial complexes, logistics centers and intermodal terminals, which mainly relates to the transport of intermodal units, containers.[46]

2.8. Green supply chain

Today we have more and more terms like: green logistics, green terminal, green logistic network, green logistic strategy and the like. A Green Supply Chain assumes an approach that minimizes the negative impact of product or service delivery on the environment. It covers all stages of the product's life cycle, from extraction of raw materials, construction of the product, its distribution and use to its removal (processing, reuse, recycling). The choice of a logistics provider for the implementation of a particular service depends on several factors (price, flexibility, sustainability, safety, reliability), and according to trends, a very high value in the future will have a sustainability factor. The two groups of measures are the green logistic strategy: optimization of logistics organization (association for increasing vehicle loading factors, optimization of routes, reduction of total number of warehouses along the logistics chain, reduction of number of journeys, distance traveled, delivery times, etc.) and the use of less environmentally harmful types of transport (water, rail, combined and intermodal transport).

Green terminals are built to reduce energy consumption and CO2 emissions by applying solar and wind energy and natural cooling systems, using geothermal energy, energy-efficient strips, innovative lighting systems, rainwater insulation and rainwater utilization, electric forklifts and the like. Logistic service users are offered tools that suggest alternative transport routes with a budget for all environmental impacts (value of pollution and consumed energy for global supply chains). However, as the logistics of the green environment are still far away, there are three approaches available: top-down (top-down approach, ie application of legal solutions, which is very necessary to reduce pollution and the environment), bottom-up (bottom-up approach , ie a situation where an interest in the environment comes from the industry itself) and a combination of top-down / bottom-up (a combination of the two

[46] See more at Zečević, S. and Tadić, S .: City Logistics, Faculty of Transportation, University of Belgrade, Belgrade, 2006

previous approaches, and usually manifested by obtaining a certificate).[47]

2.9. Education of logistics experts

The field of logistics initiates the education of a special profile of experts with multidisciplinary knowledge to solve the problem of realization of logistics flows in logistic networks. Educational logistic modules aim to familiarize participants with a logistic concept and essential differences in relation to the traditional approach to the realization of commodity flows, with the structure, strategies, technologies, functions and performances of various logistic systems, with methodology and models of planning, management, control and analysis of the intermodal system transportation chains, city logistics, logistics centers, supply chains, logistics return and waste materials, warehouse systems and industrial logistics, with the structure of logistics controlling, providers and freight forwarding companies, and with basic performance and methods modeling of modern transloading and other logistics processes and services in realization of robotransport flows.

Logistics engineers, considering the interdisciplinary knowledge they acquire during their education, work in various companies, organizations and institutions in the social and private sector (production, trade, distribution, forwarding and transport companies, logistic providers, logistic centers, transport terminals, public institutions, service activities related to the realization of logistics processes within the scope of goods flows, etc.). Logistics engineers are engaged in research, planning, design,organization, management, analysis and control of logistics flows, processes and systems. Research on employment of over 600 engineers of logistics, who graduated from the Logistics Department of the University of Belgrade, Faculty of Transportation, shows that most of them work in trade, transport, industry and freight forwarding, but also present in state institutions, design institutes, education, services to companies and the like.[48]

CONCLUSION

Client, or user of logistics services, has a growing demand in terms of the quality of delivery of goods and lower logistics costs, while reducing the harmful impact on the environment, which are the reasons for constant changes in all components of the logistics system. Consequently, new concepts and technological solutions are being developed today in all areas of logistics. It is almost impossible, in one work, to expose all logistical trends at all institutional levels. In literature, usually under various titles, there are numerous trends, for example: push and pull logistics and outsourcing, then hub, gateway, cross docking, dry port, offshore and speedport terminal, underground logistic systems, green supply chain, education of logistics experts and the like. You and others, complementary trends (in the form of concepts, strategies and solutions), emerge independently and in combination with each other, depending on a number of concrete logistical circumstances. Starting from the purpose of this paper and

[47] Adapted to Jusufranić, I .: Contemporary Trends in Traffic, Logistics and Ecology in the Function of Sustainable Development, Proceedings of the V. International Counseling: Modern Trends in Traffic, Logistics and Ecology in the Function of Sustainable Development (pp. 14-31), International University of Travnik and Faculty of Traffic Sciences, University of Zagreb, Travnik, May 2014.

[48] See more at Deljanin, A .: Logistics in Transport and Communications (Part I and Part II), Faculty of Transport and Communications, University of Sarajevo, Sarajevo, 2009. Available at http://web.efzg.hr/ doc / market / lectures pl bj 11-12.pdf (March 25, 2016)

space constraints, in the work we tried, kept and managed, all of the listed trends individually and briefly explicit.

LIST OF CERTIFIED SOURCES

[1] Deljanin, A .: Script in Logistics in Transportation and Communications (Part I and Part II), Faculty of Transport and Communications, University of Sarajevo, Sarajevo, 2009. Available at http://web.efzg.hr/ doc / market / lectures p1 bj 11-12.pdf (March 25, 2016)
[2] Ivaković, Č. and Šafran, M. and Stanković, R .: A review of the operations of the international freight forwarder in the European Union, Transport & Logistics, a bi-monthly magazine for transport and logistics, year 2005. number 3.
[3] Jusufranić, I .: Contemporary Trends in Traffic, Logistics and Ecology in the Function of Sustainable Development, Proceedings of the V. International Counseling: Modern Trends in Traffic, Logistics and Ecology in the Function of Sustainable Development (pp. 14-31), International University of Travnik and Faculty of Traffic Sciences, University of Zagreb, Travnik, May 2014
[4] Jugović, T. and Jurčić, J: o Logistics Freight Forwarding Operator as Perspective of the Classical Freight Forwarder, Pomorski zbornik, year 43 (2005) number 1. p. 151.-163.
[5] Zečević, S .: Robni terminali i robno transportni centri, Saobraćajni fakultet Univerziteta u Beogradu, Beograd, 2006.
[6] Zečević, S. and Gojković, P .: Logistic Trends, Proceedings I. International Scientific Conference of Logistics, 2010, Faculty of Transportation Doboj, University of East Sarajevo, 2010.
[7] Zelenika, R. and Pupovac, D. and Rudic, D.: Freight Forwarder in Function of Logistic Operator (abstract), Maritime Code, Rijeka, No. 38 (2000) 1, p. 143.-157.
[8] Zelenika, R .: Traffic Systems, Technology-Organization-Economics Logistics Management, Faculty of Economics, University of Rijeka, Rijeka, 2001.

THE IMPACT OF ECO-EFFICIENCY IN THE BUSINESS EFFICIENCY OF THE COMPANIES WITH SPECIAL EMPHASIS ON BOSNIA AND HERZEGOVINA

Suad Isić MA, email: suad.ibis@gmail.com

Abstract: *Bosnia and Herzegovina is a country with relatively poor ecological awareness, the environment on one hand and business efficiency and sustainable development on the other. The correct combination of these concepts can lead to stimulation of business solutions and improvement of the environment. Eco-efficiency is an important factor for sustainable development as long as the companies are using eco-efficiency as an integral part of business policy. It is important to note that Bosnia and Herzegovina is rich in natural resources to be used in the best way but also needs to have a strategy for the regeneration of natural resources. Eco-efficiency is one of the potential employment opportunities for a large number of people, which directly affects the country's economic development. The aim of this study is to show the link between eco-efficiency on one hand and business efficiency and sustainable development on the other, as well as the sole purpose and essence of eco-efficiency, displaying their mutual relationship and reflection on the environment and economic development of the country.*

Keywords: *eco-efficiency, business efficiency, sustainable development, opportunities, Bosnia and Herzegovina*