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LOGISTICS OF TRANSNATIONAL CORPORATIONS AS THE BASIS OF COOPERATION BETWEEN UKRAINE AND EU (FOR POLAND EXAMPLE)

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Forkiewicz M., Kolosok V., Mordvytska Yu. Logistics of transnational corporations as the basis of cooperation between Ukraine and EU (for Poland example).

The article describes the scientific and theoretical basis for the organization of logistics management of modern international corporations, owning by assets in mining and metallurgical business in Ukraine and Poland; it had been analyzed the influence of transfer pricing mechanism as one of the main factors affecting on the efficiency of the organization of supply chain of resources (Ukrainian semi-finished goods) to ensure uninterrupted work of the European iron and steel enterprises in a single business cycle; a model of the interaction of transnational corporate assets of a holding group was proposed, that can optimize logistics system (financial, material and information flows) in the chain of formation of added value at each unit of the chain of transmission resources; the expediency and effectiveness of cooperation of Ukraine with EU (for Poland example) in corporate mining and metallurgical business was substantiated.

Форкевич М., Колосок В., Мордвичька Ю. Логістика транснаціональних корпорацій як основа співробітництва України та країн ЄС (на прикладі Польщі).

У статті розглянуто науково-теоретичні основи організації управління логістикою сучасних міжнародних корпорацій, які володіють активами в сфері гірничо-металургійного бізнесу в Україні та Польщі; проаналізовано вплив механізму трансфертного ціноутворення як одного з основних факторів, що впливають на ефективність організації ланцюгів постачань ресурсів (українських напівфабрикатів) для забезпечення безперебійної роботи європейських металургійних підприємств в рамках єдиного бізнес циклу; запропонована модель взаємодії корпоративних активів транснаціональної холдингової групи, що оптимізує систему логістики (фінансових, матеріальних та інформаційних потоків) в ланцюжку формування доданої вартості на кожній ділянці ланцюга передачі ресурсів; обґрунтовано доцільність і ефективність співпраці України з країнами ЄС (на прикладі Польщі) у сфері корпоративного гірничо-металургійного бізнесу.

Форкевич М., Колосок В., Мордвичька Ю. Логистика транснациональных корпораций как основа сотрудничества Украины и стран ЕС (на примере Польши).

В статье рассмотрены научно-теоретические основы организации управления логистикой современных международных корпораций, владеющих активами в сфере горно-

металлургического бизнеса в Украине и Польше; проанализировано влияние механизма трансфертного ценообразования как одного из основных факторов, влияющих на эффективность организации цепей поставок ресурсов (украинских полуфабрикатов) для обеспечения бесперебойной работы европейских металлургических предприятий в рамках единого бизнес цикла; предложена модель взаимодействия корпоративных активов транснациональной холдинговой группы, оптимизирующая систему логистики (финансовых, материальных и информационных потоков) в цепочке формирования добавленной стоимости на каждом участке цепи передачи ресурсов; обоснована целесообразность и эффективность сотрудничества Украины со странами ЕС (на примере Польши) в сфере корпоративного горно-металлургического бизнеса.

Problem statement. Accordance to the development of the world economy in European region the interdependence of the international logistics increases, its' bases of the organization must create the most favorable conditions for material, financial and information flows in the area of transfer of goods and services between entities, located in different countries, and global logistics, that has effectiveness and investigative nature and is related to the processes of internationalization and globalization of the world economy, trade and transport development between subjects of the world economy (mostly MNCs) and the development of information and communication technologies.

Analysis of last researches and publications. Among Ukrainian researchers in logistics of transnational corporations study is to provide the world's leading audit and consulting company «Ernst and Young» and «PwC», extensive development in Ukraine and EU, internationally focusing attention OECD reports (European Organization for Economic Cooperation and Development) and the Department of Economic and Social Affairs on the nature of the transfer pricing methodology and identify its functioning in activities of international corporations.

The aim of the study is the necessity to understand the basics of the organization of logistics processes management at national and European level, to assess the possibility and the necessity of the usage of European top management experience to the field of logistics and transport business realities of the Ukrainian corporate structures.

The results of the study. The necessity to optimize the system of national logistics provision of national enterprises at state and international level acquires strategic importance at the initial path of Ukrainian integration to European Union. Based on near geostrategic location of Poland and Ukraine, it is possible to judge about the potential for countries to be a competitive bridge for transit of goods and passengers between countries of Europe, Asia and the Middle East, but due to lack of development of Ukrainian transport and logistics infrastructure, it is advisable to consider and determine the possibility of integration of Polish model to the plane of national realities.

As a result of flowing of the integration and consolidation processes in Ukraine over the last five years, a significant amount of large industrial capital was concentrated in the hands of several private owners, who have a diversified portfolio of foreign assets in different business areas. Further, the integration of privatized assets takes place in the international space, culminating in the fact that currently almost all Ukrainian large and medium industrial enterprises lost their legal independence and became parts of the organizational structures of large international holdings and multinational groups. First of all, such changes in the form of legal ownership of the enterprises concerned the basic industrial sectors of the economy, such as metallurgy, mechanical engineering, energy and others.

The industrial potential of Ukraine has a powerful mining and metallurgical complex, which contains a full production cycle enterprises. The main Ukrainian leaders, engaged in their production and business activities at the national and international steel markets, are the holding "Metinvest" (group «SCM»), a group "ArcelorMittal", "Industrial Union of Donbass" and holding "Euraz". The organizational structure of these corporate structures gathers national enterprises with

a complete production cycle, and foreign assets, mostly equipped with rolling metallurgical facilities. The low cost of semifinished products (slabs, ingots, billets, others), produced by Ukrainian enterprises and unconsumed by them at next stages of production are transferred to the related foreign ones to diversify the product line and to increase the possibility of additional margin getting at more expensive European market. Such transfer operations often accompanied by resource optimization schemes of distribution and redistribution of financial flows, which allow to increase the profitability of the corporation, and adversely affecting to the budget of the national economy. For example, one of such methods is a mechanism of transfer (underestimated) prices as for semi-finished products, as for finished rolled steel goods, accompanied by subsequent sales of finished products by related corporate distribution networks to consumers already at a higher market prices. Sometimes, consumers may be related enterprises, operating in the field of mechanical engineering and shipbuilding, energy and other industries. They are the units within the organizational structure of a single corporation again. In this case, the finished steel goods (such as building structural sheet) can also be implemented by related building enterprises at the same transfer prices, and at the market price already is set for finished engineered products, equipment, etc. It allows the management company to get a significant amount of corporate profit, including the expense of the underpayment of profit tax. It is lost by production enterprises due to the usage of transfer prices and sales of finished products to related corporate units at lower prices. Such model of interaction of assets within Ukrainian international corporate structure is generally shown in Figure 1.

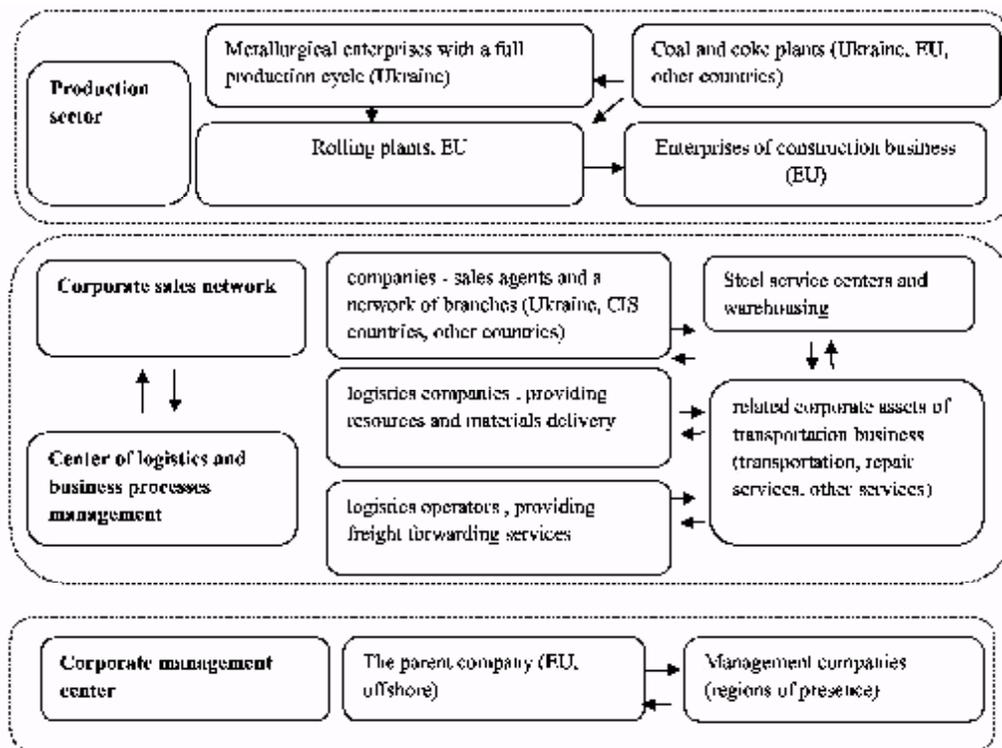


Fig. 1. The model of the interaction of transnational corporate assets of a holding group (in the field of mining and metallurgical business)

However, we must indicate the fact, that effectively organized system of interaction between the assets of transnational single corporate structure (Fig. 1) makes it possible to optimize the logistics system (financial, material and information flows) in the chain of formation of added value at each unit of the chain of transmission resources in a single business process cycle.

For example, the associated logistics company, that is a unit within the organizational structure of the corporation and providing services to related production companies and sales

organizations for the delivery and freight forwarding (and other transfer objects) has a wide range of possibilities of usage of corporate funds and resources than a similar independent company. A significant role in this has the possibility of establishing relatively low prices and tariffs for transportation and logistics services by the company to the related (subsidiary) units (it is possible to use transfer mechanisms), which ultimately allows to set an adequate competitive market price for the products and generate a large amount of profit by reducing logistics costs.

Intra-corporate logistics company, having the opportunity to use all the branches of storage facilities with spare capacity in various parts of the world, is able to cope even if there is a failure in the process of cargo delivery to any part of the chain. Flexible management of corporate logistics network would lead to improving the efficiency and coherence of all the nits of the production chain by consolidating power in the right places, and reducing redundant ones. Such integrative effect requires a detailed specialization and fragmentation of functions of all departments, involved in the logistics and transport and marketing activities. For example, it can be split and assigned to separate divisions of functions of logistics management, warehouse management, marketing and sales. It must be remembered about the high level of interdependence of successful marketing activities, and actually the whole business, not just from a set of effective marketing activities, as well as the coordinated work with the units responsible for logistics and delivery as the necessary resources to participants of the production chain, as well as finished products to consumers. It is also necessary to create a sufficiently clear intra charter and to develop some rules of work between the departments of the corporation; to prescribe decision-making mechanisms in the field of logistics management, stipulating how to change the purpose and parameters of work, to specify the scope of responsibility and risk sharing, to create an effective system of incentives, which both guarantee the effective work of each member of production and supply chain, and the introduction of a tool change in corporate strategy as a whole.

Let's consider the basics of logistics organization within the corporate structure of MNC company and the interaction of logistics processes with the production and sales activities of the corporation. The objects of the study are the international corporations, engaged in production and economic activity in the mining and metals business, and owning Ukrainian production assets: Ukrainian group "Industrial Union of Donbass" (parent company / the main office - Donetsk, Ukraine), holding "Metinvest" (parent company / the main office - Switzerland), a group of "Arcelor Mittal" (parent company / the main office - India).

The corporation "Industrial Union of Donbass" is one of the largest multinational steel companies with headquarter office in Donetsk, Ukraine. To date, the portfolio volume of goods, produced by enterprises of the corporation are treated as semi-finished and long profiles products. [3]. The organizational structure of the corporation is presented in Table 1

Such a highly diversified organizational structure of the corporation requires the efficient organization of logistics management to ensure the smooth work of production plants. The corporation is equipped with a sufficiently powerful transport and logistics sector in Ukraine, Poland and Hungary, which guarantees high quality and timely deliveries of Ukrainian semi-finished products and resources to the related rolling plants of EU.

So, slabs, made by Ukrainian enterprise PJSC "Alchevsk Metallurgical Plant", are delivered to Polish plant «ISD Hutą Częstochowa» (Częstochowa, Poland), which in its turn produces a construction shipbuilding sheet, which is used for ship building by another related company - Gdansk Shipyard (Stocznia Gdańska, Gdansk, Poland), which is owned by a subsidiary company of the corporation "Industrial Union of Donbass" - «ISD Polska».

Thus, «ISD Hutą Częstochowa» delivers to Gdansk shipyard high-quality sheets for buildings and steel constructions. According to the cooperation on the basis of long-term contracts with its related companies, which owns «ISD Polska», Stocznia Gdańska provides a constant supply of raw materials for production.

Table 1. Organizational structure of the assets of the "Industrial Union of Donbass" (April, 2015)

Assets	Type of activity	Country/city of location
Production enterprises		
<i>Metallurgical enterprises</i>	production of iron, steel, semi-finished products, Large-size shapes and hot-rolled plates; billets for production of oil and gas pipes	Ukraine / Alchevsk, Dneprodzerzhinsk
<i>Rolling plants</i>	production of special steel and sheet metal; tube rental	Poland / Chenstohova Hungary /Dunauyvarosh
<i>Coke enterprises</i>	production of coal coke, tar, coal charge, benzene, ammonium sulphate..	Ukraine / Alchevsk Hungary /Dunauyvarosh
Building enterprises machine-building and repair enterprises	Mechanical engineering, designing steel constructions pipe sections; equipment repair services, reconstruction	Hungary /Dunauyvarosh
	Industrial and civil building	Ukraine / Mariupol Macedonia / Skopje
<i>shipbuilding plants</i>	shipbuilding, construction metalware a wide profile	Poland / Gdansk
Logistics centers and transportation companies	freight forwarding services; ship chartering	Ukraine / Mariupol
	delivery services; warehouse logistics	Poland / Bydgoszcz
	domestic and international freight forwarding by all modes of transport; Warehouse, storage; loading and unloading operations; IT-services	Hungary /Dunauyvarosh
Energy companies and research centers	energy supply companies; Research in the field of energy-saving technologies and environmental systems; construction and sale of power equipment	Hungary / Miskolc
Sales network	large and small wholesale deliveries to the domestic market for steel	Hungary / Miskolc
	delivery of wagon and locomotive axles to the CIS countries	Ukraine / Donetsk
	sale of rolled metal for export to the CIS countries	Russia / Moscow, Belarus / Minsk, Belarus, Azerbaijan, Georgia
	large and small wholesale deliveries to the territory of the Republic of Poland	Poland / Lodz
	supply to the market of Hungary and EU	Hungary /Dunauyvarosh
	sale for export to to foreign countries	Switzerland / Berne
Management companies	strategic management of assets specialized financing of investments	Ukraine / Donetsk
	strategic management of assets specialized financing of investments	Switzerland, Cyprus, British Virgin Islands

In their turn, the round billets, produced by PJSC “Dneprovsky Integrated Iron&Steel Works named after Dzershinsky” are used by Hungarian plant " ISD Dunaferr Zrt. ". This plant also has subsidiaries in the machine-building facilities controlled enterprises. The logistics process in

Ukraine is provided by international freight forwarding company "Intertransservis" and transportation complex of company "Azovinteks" (supplies of coke and other chemical resources, produced by PJSC "Alchevsk coke" for PJSC "Alchevsk Iron and Steel Works", freight forwarding services for goods, delivered to Mariupol port). In EU transport and logistics complex of the corporation is represented by large logistics centers in Poland (Bydgoszcz, Lodz), localized near the «ISD Huta Częstochowa» and the Gdansk shipyard, which simplifies the delivery of Ukrainian slabs to the first company, and the finished structural sheet to the second one. There is also a major logistics center to coordinate the delivery tube billets for steel enterprise and delivery of the finished pipe to consumers in Dunauyvarosh (Hungary). The sales network of the corporation is represented in Ukraine, CIS, EU and other foreign countries.

It should be noted, Ukrainian mining and metallurgical enterprises with a complete production cycle are the units of many international holdings. Thus, a national international mining and metallurgical holding "Metinvest", that is a unit of the organizational structure of a highly diversified group "SCM", owns by large industrial enterprises in the eastern part of Ukraine (PJSC "Ilyich Iron&Steel Works", PJSC "Azovstal" (Mariupol), partially PJSC "Zaporizhstal" (Zaporozhye), etc.), producing semi-finished products for rolling plants of EU countries (Italy, Bulgaria, Great Britain); the largest mining and metallurgical group "ArcelorMittal" (India) also owns Ukrainian mining and metallurgical giant "ArcelorMittal Kryviy Rih", producing blanks for further production process of the enterprises of EU (there just six companies in Poland group: Kraków, Dąbrowa Górnicza, Sosnowiec, Świętochłowice, Chorzów: Huta Królewska, Zdzieszowice, Czech Republic, Belgium, Germany, France and so on.) and Turkey.

It should be noted a significant increase of the Ukrainian turnover with EU in 2014. According to the Customs Service of Ukraine [9] EU countries took the first place - 35.5%, CIS countries got the second one - 29%, Asia - 24%. It is also noted the balanced growth of both exports and imports of goods to Ukraine from EU countries. For example, in 2013 Ukraine had the largest amount of trade with CIS countries - 36%, while the EU ranked only the second place (31%), Asia - third one (23%). In 2014 Ukraine's international trade in goods decreased to the lowest rates of EU countries (13%), the highest - with the CIS countries (-39%), with the CIS without the Russian Federation - 17%. Against the background of the general decrease in the volume of trade, in 2014 there was a growth of Ukrainian exports to EU of about 2%. The increase of the supplies of Ukrainian goods has occurred in almost all EU countries. First of all: the Netherlands - 7%, Italy - 5%, Poland - 4%, Germany - 1%, other countries - 2%. The decrease had occurred only Ukrainian exports to France and Hungary [10]. The international information and analytical portal «Worldsteel» [11] notes, that in 2014, Ukraine occupies the 10th place among the world producers of steel and rolled products, and 5th place among metal exporters.

According to European Commission data, [2, 4] in total Ukrainian exports to EU in 2014 deliveries of rolled metals (Iron and steel) was about 23%, the products of the mining and fuel industry (Fuels and mining products) - 18% (Iron Ore - 10%), products of chemical processing (Chemicals) - 4%. The structure of exports and imports of Ukraine and EU in 2014 is presented in Figure 2. As can be seen, EU imports of Ukrainian products and rolled steel goods is more than 50% of the group of industrial products (Manufactured goods classified chiefly by material - S7 in Figure 2), which makes it possible to judge, that the dominant role of this group of products among the common set of import of Ukrainian goods by countries of EU and the prospects of development of trade between countries in the field of mining and metallurgical business, given the corporate relationships between Ukrainian and European leading industrial enterprises.

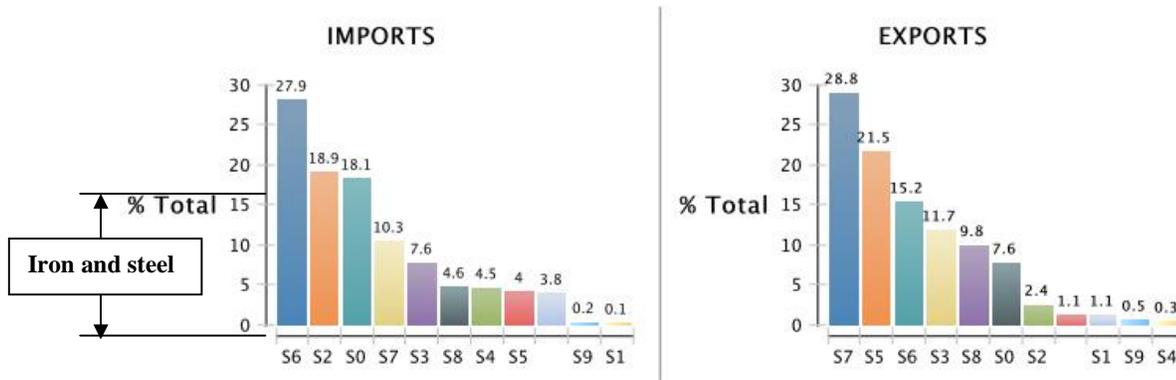


Fig.2 Total goods: EU Trade flows by SITC section, annual data 2014 [Source Eurostat Comext Statistic, 2]

Conclusions. According to the results of the study, it can be concluded that, of course, Ukraine has enough weighty prospects of cooperation with the countries of European Union in the field of mining and metallurgical business, which makes it necessary to build an effective system of interaction between all the nits of a single production chain, which is impossible without teamwork of transport and logistics sector of the corporation. A special role in improving the efficiency of international corporations at the present stage of development of the world economy is took up by the business optimization techniques of both financial and logistic business flows, among which the highlight role is took by the mechanism of transfer pricing at goods, services and other objects of the corporation transfer operations between departments involved in the single production chain.

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Ключові слова: логістика, міжнародна корпорація, трансфертне ціноутворення, ланцюг постачання

Ключевые слова: логистика, международная корпорация, трансфертное ценообразование, цепь поставки