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DEVELOPMENT OF WAREHOUSE SPACE IN POLAND IN 2004 – 2011¹

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Клєпацький Б., Дзєдзіц-Ягоцька І. Розвиток складської сфери у Польщі у 2004-2011 рр.

У статті подано результати аналізу змін у складській інфраструктурі економіки Польщі. За останній час практичне використання логістики у складському господарстві стало настільки важливим, що логістика стала академічною дисципліною. Менеджери все більше і більше стають відповідальні за ефективність застосування логістики в економічній практиці функціонування своїх підприємств.

Ключові слова: складська сфера, зберігання.

Klepacki B., Dziedzic–Jagocka I. Development of warehouse space in Poland in 2004-2011 The aim of the elaboration was to present changes in development of warehousing infrastructure in

Poland. Recently, practical use of logistics has developed so significantly that it left behind logistics

as an academic discipline. Managers are more and more aware of the effects of implementing logistics into economic practice of their units onto effectiveness of their companies. *Key words:* warehouse space, storage.

Клепацки Б., Дзедзиц-Ягоцка И. Развитие складской сферы в Польше в 2004-2011 гг.

В статье представлены результаты анализа изменений в складской инфраструктуре экономики Польши. В последнее время практическое использование логистики в складском хозяйстве стало настолько важным, что логистика стала экономической дисциплиной. Менеджеры все больше и больше становятся ответственными за эффективность использования логистики в экономической практике своих предприятий.

Ключевые слова: складская сфера, хранение.

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Introduction. In developed countries a warehouse is treated as an important element of delivery chain. In Poland warehousing is appreciated but in many companies it is still beyond standards and requires improving. Logistics becomes the basic instrument allowing to rationalize warehousing processes and to manage stocks. Logistics in warehousing enables to flexibly meet needs of receivers and to lower costs of warehousing itself. It aims at delivering produced goods to the receiver in good qualities, quantities, at the right place, the right time and in accordance with all other receiver's expectations.

Term of warehousing. Logistic infrastructure comprises a system of roads, easily accessible logistic centres (warehouses and ports) and telecommunication networks in the given area. Logistic infrastructure can be divided into: line, site and IT infrastructure. Site infrastructure includes mostly warehouse buildings. A warehouse is an organisational unit, which plays many defined roles, of which storing stocks is the basic one. A warehouse is a kind of junction in logistic network of interdependences, where goods are temporarily stored or transferred onto another way leading through a network of interdependences.

Warehousing is a concept broader than storage. It means temporary gathering and storing stocks. It includes receiving, storing, preserving, controlling, registering, completing and dispensing stocks. A warehouse is a separate closed building or quarter, roofed space (shed), open storage in the open air, a special facility (a tank, a silo, etc.) or a complex of such quarters, spaces and facilities properly secured and equipped with appliances for storing materials, semi-finished or completed goods.

Warehousing market is a part of logistic market which consists of three elements:

1. infrastructure comprising commercial warehouses, industrial warehouses and other;

2. investments composed of warehouses for rent and warehouses for own use;

3. services including rent of warehouse space and warehouse services.

Functions fulfilled by a warehouse are interconnected. They form warehouse economy consisting of construction space, stock stored to meet client's needs and technical equipment to manipulate materials.

A well-functioning warehouse guarantees a continuous flow of goods, reacting to needs of receivers. A warehouse, as a place where goods are stored, is an integral part of the whole logistic system, which is initialised in the beginning stage of economic process at the producer, and finalised at the place where the client arrives as a consumer of the given commodity.

A warehouse plays numerous roles, among others it coordinates demand and supply in a defined place and time, minimizes costs of accumulating and storing stocks, maintains and supports production processes, supports marketing as well as optimizes costs of lack or loss of benefits. Thus the warehouse meets the needs that in logistics are defined as preferential.

Warehouse space. Warehouse infrastructure in Poland has been changing considerably. Total warehouse space in Poland in 2004 equalled 17 621 515 square metres and included commercial warehouses and new warehouses which were constructed by developer companies.

After 1995, warehouse infrastructure developed significantly increasing by than 3 million square metres of modern warehouse space in buildings which had more than 1000 square metres of floor. Around 300 thousand square metres of warehouse space was built in 2005. The majority of space built in 1995-2005 concentrates in mazowieckie, łódzkie, wielkopolskie, śląskie and dolnośląskie, where 97,5% of total space of large warehouses in Poland is located.

There were also big changes in commercial warehouses, whose space in 2004 is presented in figure 2.



Figure 2. Commercial warehouses in voivodships in 2004, m^{2*}. **Source:* [1].

The number of warehouses closed in 2004 increased by 3,02% and their space by 9,17%, the number of roofed warehouses increased by 1,08% and their space by 9,2%, while the number of storage sites increased by 6,27% and their space by 8,33%.

Warehousing infrastructure in Poland was extender further on in 2006 – 2007. Warehouse space became the largest warehouse and distribution market, and it is still in considerable demand. The structure of increase of warehouse space by its types is presented in figure 3.

In 2007-2008 industrial companies owned the largest warehouse space. In 2005-2008 de-

crease of warehouse space could be observed in agriculture, while increase by 20% was observed in trade.

2008 was a very good year for the market of modern warehouse space, as more than 2,1 million square metres were completed. To compare, in 2009 around 1,1 million square metres appeared on the market.

Developers built most of the modern warehouse space to rent it. In 2011 their share in total modern warehouse space in Poland equalled around 85%.

Spatial distribution of investment in new warehouses is presented in figure 4.



Figure 3. New warehouse space in Poland in 2004–2011 (thousand m²)*. *Source: Authors' elaboration based on data from the Institute of Logistics and Warehousing.

In 2007-2009 a lot of warehouses were constructed, but then the dynamics of the increase of warehouse space slowed down due to more and more noticeable recession resulting from the worldwide financial crisis.

At the same time big regional disparities were still strong. Most new warehouses were built in regions which previously had been generally better developed, including infrastructure of logistics. Changes taking place in these voivodships are presented in figure 5.

World financial crisis affected global and national economy especially in 2009-2010, but it was strongest in 2009. However, despite this difficulty most investments in warehouse buildings were completed. In 2010 they were mostly developers' investments. At the end of 2011 warehouse space totalled nearly 8,9 million square metres and it is still increasing at present. Mainly developers built modern warehouse space and their share in total warehouse space in 2011 equalled around 85%. In 2010-2011 the increase noted in previous years slowed down. In 2010, 467 thousand square metres of warehouse space were completed, while in 2009 it was 969 thousand square metres.

The situation improved in 2011, as 727 square metres were constructed and put into use. The effects of 2011 show that crisis in the field of modern warehouse space slowly passes by, however developers are cautious because another international crisis has been forecast in 2012.



Figure 4. New warehouse space in voivodships of Poland in 2007–2011*. **Source:* [2].



Figure 5. Voivodships of the biggest relative increase of warehouse space, %. *Source: [3].*

In 2011 dolnośląskie voivodship became a leader of warehousing market as it had 11,2%

share in total increase of modern warehouse space in Poland. Still the largest increase over

the whole year was observed in śląskie – the most industrialised region of Poland.

Developers were least interested in investing in lubelskie, lubuskie, podlaskie, świętokrzyskie and warmińsko-mazurskie. In December 2011 there were around 500 thousand square metres of warehouse space in total.

Conclusion

1. After the breakdown of 2010-2011, we can now observe revival in warehousing market. It results from investments in infrastructure connected with EURO 2012. A lot of new attractive locations will be created, activity of lessees increases, new highways and express roads are being built which influences the situation of warehouse complexes. New warehouse space is very popular with lessees from food, pharmaceutical and other branches. However, logistic

companies, commercial networks and production sector still remain the largest lessees.

2. Present warehouse space and investments in this field vary significantly in individual regions. Investors are mostly interested in best developed voivodships, which have a network of line and site infrastructure and which additionally are located near western border of Poland.

3. Investors do not show much interest in less developed regions, mainly located along eastern and north-eastern border of Poland. It is caused by poorly developed logistic infrastructure, especially transportation one, which is considered to be the main barrier. To economically activate these regions it is necessary to invest in construction of roads and highways as well as in social infrastructure (health care, culture, education, etc.).

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