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## **Information Flows on the Wholesale Food Market in Poland**

The problem of information flows organization on the food goods market in Poland is presented. Information flows are analyzed on the wholesaler market and the example of logistics centre is used – Wielkopolska Gildia Rolno-Ogrodnicza S.A. The paper is considering the issues of information system improvement necessity because of its usage in researched object.

Представлена задача организации информационных потоков на продуктовом рынке Польши. Дан анализ информационных потоков на оптовом рынке и приведен пример центра логистики Wielkopolska Gildia Rolno-Ogrodnicza S.A. Рассмотрены проблемы усовершенствования информационной системы для использования ее в исследуемом объекте.

*Key words: wholesale food market, information flows, logistics centre.*

**Characteristics of the food market in Poland.** The sector of food goods in Poland is the element in which meaning transfigurations were written down in recent years, what adapted it to conditions of the economy market. It is shown through the pointed out bellow occurring events [1]:

- fast privatization of the sector;
- modernization in the field of food processing industry;
- managing of big, foreign investments;
- increasing the goods offer;
- upsizing the level of processing food.

However it is possible apart from so profitable changes which are pointing at strengths of the food industry to observe also weaknesses, mainly (characteristic also for leaders in the branch) the low level of applying marketing principles and modern administration in the company, and also wants in the field of modern technologies, often the low quality of raw materials utilized for production, the low level of the concentration, the specialization and integration, as well as organizational maladjustment. Such defects are most often observed in the group of average and small companies. It is appearing, that deriving of examples from companies organized in the way characteristic for companies with the foreign capital, perhaps might posing the trend of operations which should be applied in

Polish food companies. Inflow of new technologies, as well as the application of modern solutions from the range of administration, marketing and the distribution is this trend which, food companies should proceed in. However reaching the high level of development can be difficult since the relatively slow evolution of distribution channels, considerable crumbling of trade and the small inclination for the concentration and integration are seen on the market in this range. A lot of companies with the foreign capital which are running their own production or buying domestic companies are remark concentrated on developing modern distribution channels, adapted to consumers needs. Multistage often prolongs existing channels on the way from products to final purchasers already, and it is upsizing expenses of rotation and the price of goods is increasing what is lowering its competitiveness. Big meaning in reaching the competitive advantage of food companies has applying principles of marketing, modernizing administration and applying principles of logistics. Such demands mainly are fulfilling big companies which are extracting big professional competence from their trading partners, the broad range of provided services, fixed availability and reaching the maximally broad cluster of clients with the commodity. Undoubtedly formulated requirements are influencing restructuring processes in the food branch, in spite of wants in the range of capital disposition. So the changes are proceeded in the field of objective structures, which in consequence lead to [2]:

- structural diversifying of companies, influencing for random competition between them, which eliminates the threat of monopolistic practices applying;
- domination of private firms above state in the majority of industries;
- increasing the bond with strategic investors, ensuring inflow of capital and new technologies and forcing companies restructuring;
- emerging of sector leaders and capital groups operating in the developing companies environment.

To distinguish among development trends of the food branch still belongs intensifying tendency towards both horizontal and vertical integration. Horizontal integration means the afford creating of organizational given product producers compounds on the purpose shared representation for contacts needs with trading partners, information exchange and taking promotional operations up. Vertical integration is inspired by producers and it is embracing providers of raw materials for food processing industry and partners in channels of the food distribution, what should lead to creation the robust cooperative compounds. Changes dropping in food companies functioning on shared European Union market certainly have direct impact on the shape and links of logistic networks in which they are located in. So Polish companies, wanting their products to be accessible on the European Union market, are concentrating on the solutions search also from the range of logistics [3]. The solution supporting them in these

activities might be logistics partners, who are often offering the broad range of services, and which are given the possibility to ensure availability of products on the European Union market. The research in the service TSL branch (the transport, forwarding, logistics) are pointing out the observation after Poland accession to EU the commodity crumbling, what means that companies more often charge with the transport of small consignments in the shorter length of time. It is peculiarly important in the food branch, because of the need to keep terms of usefulness for consumption, so using of the fast transport. Because of the commodities specificity (need to keep special conditions at the transport e.g. cooling) food companies have to select for verified counterparts collaborating with them in the network [4].

**Commodity exchanges and the wholesale market as the links of food supply chains.** Commodity exchanges are the important link performing in market economies, fulfilling a lot of function. Taking under remark legal conditions of commodity exchanges functioning, it is necessary to consider the duties, as the act regulating their organization is superimposing [5]. Stock exchanges are posing the centralized market where concentrated is the demand and the supply for determined goods. So their part refers to mutual keeping in touch the producers with clients of goods offered on the stock exchange. However such operations are too limited in the age of the market economy, so it seems that it is also the proper task for stock exchanges to be reached by value added creation for the client, which is able to achieve by some extra operations like storing, packing, palletes standardization of stored products etc. That is the reason that logistic operations are very desired, as they are giving the chance to obtain availability of market products for clients [6].

As it is resulting from the commodity exchange definition, it is marked by the permanent place and tense of appointments for producers and clients. But the most significant feature of the stock exchange, is the fact that goods offered there for sale have to be standardized and what is more, to such a level, that stock market commodities became spare entirely, what means there is the determined quantity of one commodity is able to be replaced with the other commodity game of the same species. Formal conditioning of stock exchange functioning are also signed in its regulations. The regulations are deciding what is the object of the stock-exchange turnover and quality standards are binding for the given commodity, as well as what is the smallest commodity quantity which can be the rotation object. Generally, it is possible on the stock exchange to partition contained transactions into two basic groups: real transactions and terminable transactions of the futures type. This classification is shown on Fig. 1.

The research managed on the Polish stock market presents that the basic task of commodity exchanges is leading the real transactions, what means that they are located in the preliminary phase of stock market development [8]. One of de-

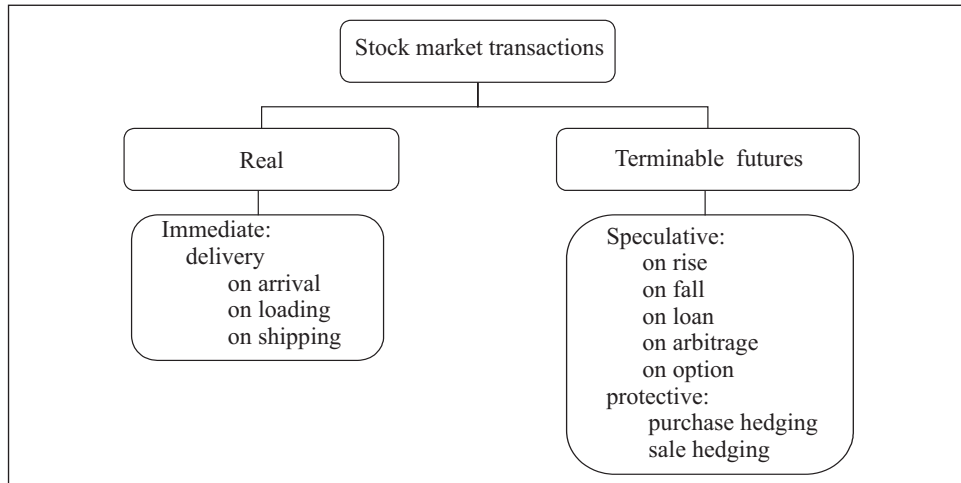


Fig. 1. Stock market transactions [7]

clared creating commodity exchanges purposes at the beginning of `90 was the improvement of agricultural-food products rotation, increasing this rotation turnover, as well as making easier of both domestic and international business contacts. These postulates were fulfilled, stock exchanges are fulfilling the price-creation role, but it is limited because prices auctioned on them are left under robust impact of interventional operations of the Agricultural Market Agency. Also the important function of commodity exchanges is creating the information base about the quantity, the structure and trends of supply, demand and prices changes. The amassed information base is permitting for forecasting, what is enabling for participants in the market to take the decision up in the production sphere and trade. Information which is generated by commodity exchanges is available to all objects functioning on the agricultural-food market, so for producers, dealers, food processing industry workers, and the central institutions, what makes possible to make reports and market forecasts by them. So commodity exchanges are fulfilling the important task in the field of creating information bases improving the process of the goods and information flow, posing this link, which is generating accessible information easily and fast for all links of the agricultural food processing industry supply chain.

**Logistics services centers as the peculiar form of the service activity.**

Logistics centers are the important factor of the economic growth in European countries, which is improving execution of logistic processes. The definition of the logistic centre is proving that it is «independent economic object having the allocated area linked to the communication environment (with mainly road network), with infrastructure (ways, squares, car parks, engineering buildings and

buildings), with the equipment, personnel and the organization, providing logistic services within the confines of short-term orders or continuous agreements with external deliverers.» [9].

It is necessary to point out that every logistic centre without regard to the kind or the type, is completed with [10]:

buildings which enable the work for all centre departments in logistics services realization;

stock buildings along with fitting;

fitted reload terminals along with squares and with access roads;

computer networks, making cooperation with deliverers and clients possible, banks, insurance companies;

gastronomic and hotel, medical, workshop back-end particularly for cars etc.

Designing and the construction of the centre however is not ending in the material sphere because it is posing only the base for internal communication systems elaboration. The infrastructure should be organized in the way, that the flow of materials and information was fast and efficient. Complexity and flexibility of the operation, which are characteristic for logistics centers allow for fast and effective reacting to changes dropping on the home market as well as troubleless adapting to trends of each segments development on the European market.

Logistics centers are posing the peculiar form resulting from functions fulfilled by them, these functions are always subordinated to tasks of logistics activities like ensuring the supply in the desired quantity, the place and the tense. The functions of logistics centers are divided on the standard (essential) and auxiliary. The first group of centre tasks includes [11]:

transfer transshipping coming from many deliverers charges, shipments storing coming from many deliverers and intended for many clients, portioning and compiling charges intended for many clients, transport, mainly for clients;

auxiliary functions are: materials processing, sorting, compression and forming transport and stock units, repair services, accepting of expressions and the complaint, cleaning packages etc.

Logistics centers implemented at excelling countries are favorable for the intensive commodities exchange on the domestic and international market, as well as for rising of structural changes influencing the whole regions and economic activity parameters of companies. This statement confirms the right of assumption, that well planned and realized logistic services depend much on the location, the kind and the organization of logistic centers [12].

Also the important function of logistics centers is creating the information base about the quantity, the structure and trends of supply, demand and prices changes. The amassed information base is permitting for forecasting, what is enabling for participants in the market to take the decision up in the production sphere and trade. Information which is generated by logistics centers is available

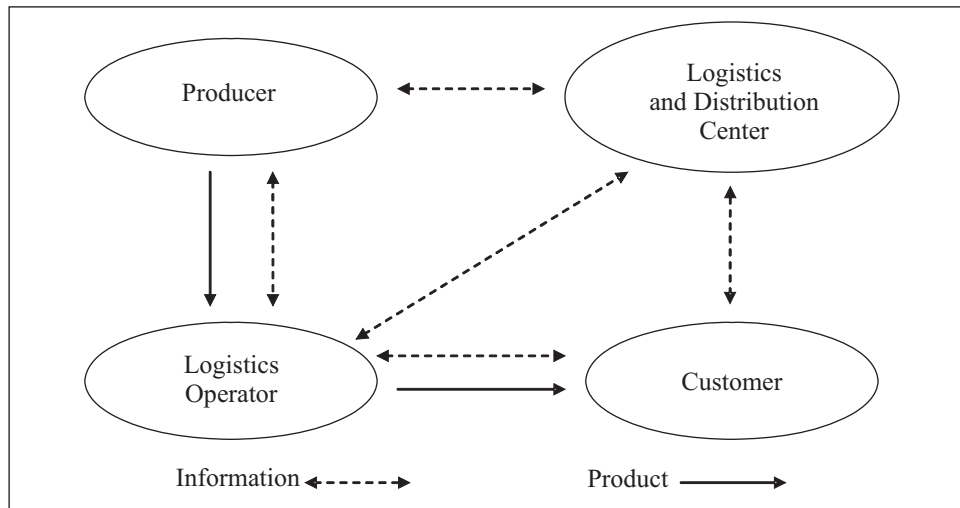


Fig. 2. Schema of the logistics system on the WGRO S.A market [13]

to all objects functioning on the agricultural-food market, so for producers, dealers, food processing industry workers, and the central institutions, what makes possible to make reports and market forecasts by them. So logistics centers are fulfilling the important task in the field of creating information bases improving the process of the goods and information flow, posing this link, which is generating accessible information easily and fast for all links of the supply chain. Such information is peculiarly essential in agricultural food processing industry, where the subject of action are raw materials, semi-finished articles and final goods with the peculiar properties.

**Information system of the logistics centre in the Wielkopolska Gildia Rolno-Ogrodnicza S.A in Poznan (WGRO)** [13, 14]. As the sources are giving the Gildia is equipping about 5000 of companies, usually located in the area of median-western and northern Poland, and their annual turnover is reaching 400—500 mln. of PLN. Taking under remark the objects which are entering into its composition, it is possible to single out the links as it is shown on Fig. 2. The most important of objects functioning on the mentioned exchange is the logistics and distribution center. This center has a main task to organize and co-ordinate bigger supplies and standardized games of agricultural-gardening commodities for clients.

In the functioning object as is the commodity exchange, it is possible to distinguish according to logistics classic partitions, three basic phases of physical goods flows. They are: the supply phase, the processing phase and the distribution phase.

Physical goods and information flows refer to both individual and organized deliverers in the supply phase. Here it means the individual producers of agricultural-food commodities, as well as producers groups and specialized processing companies. Producers groups are the most profitable deliverers from the efficiency point of view, because they are supplying at one time bigger, usually good qualitatively deliveries. In this case so, producers groups are deliverers privileged group and they have in WGRO specialist consulting and necessary production products deliveries ensured (like seeds, seed potatoes, fertilizers etc.). Assigning to organizing into producers groups by single deliverers is resting on the logistics and distribution centre [15].

Processing logistics includes the activity linked with compiling of deliveries and with supplying the network of big commercial clients with agri-gardening products. Department of compiling has modern devices for compression and tagging of commodities with bar codes what is causing that commodities going through this phase of the exchange performance are growing standardized, high qualitatively products. To point apart from such solutions, but also important WGRO activity is immediate sale realized in the modern hall. It refers to small games offered by single, not associated producers of commodities. It seems that this form of activity will be more vanished, because in spite of the periodic increase in turnover, it is possible to notice the drop in the interest in purchases from the small and average buyers, who were still posing recently the main group of clients on the stock exchange. It is connected with changes which took place about market agents. More often on the market cash and carry are buying actively big commercial networks and mediators, however the number of purchases realized by small groups of dealers who are just equipping themselves at cash and carry type wholesalers rather is falling. Because of that big commercial networks are more and more significant clients of WGRO, they require not only the high quality commodities and proper packages and the sign of compatibly with the EAN system standards, but also deliveries at the right place and right time in accordance to the Just-in-Time system. Individual deliverers are not capable to fulfill such requirements.

The department of marketing and trade is playing the essential part in the sphere of the WGRO distribution. Tasks of the marketing department are concentrating on the influence on buyers in the purpose of stock exchange popularization, and promoting modern forms of the wholesale business with a promotion of Polish products. The trade department is supposed to search for clients effectively. It is collaborating with the logistics and distribution centre in the information exchange, which is delivering necessary information to contact with clients and associating them with deliverers offering commodities. The commercial offer elaborated by the trade department is then published on the Internet, what gives the access to it for all objectives, not only for those, which are located in the proximity area.

In pointed the next links of the logistics chain is not characterized so far one of elements - the logistic operator activity. In WGRO such an operator is Paker company, which has a task to provide a range of services as: accepting supplies from deliverers, sort, the short-term store, packing in collective and individual packages, forming of logistic units and feeding the commodity to the consumers. So activities of the service company are managing to enriching products with new, attractive application values that they are attractive for big market clients like supermarkets and retail networks.

The significant meaning in the commodity exchange supply chain possesses the information flow. Such a flow is being done in the peculiar way in restated WGRO. Because the full trade offer of exchange is available through the Internet as the electronic form – Trade Information System (SIR), so also all the information gathered from the producers should be in Internet. But because accessibility to this carrier of information is very small at farmers, stock exchange in collecting information is using means of offices, as well as the agricultural consulting centers. Farmers are able in these places to fill the document in the questionnaire form, and then the trained workers of communes and centers are typing it out to the electronic form made it also available in the e-catalogue. The flow of information is paper-less, however information given by producers is coming to the data base managed by the WGRO S.A Logistics and Distribution Center. The system of exchange information with the Internet usage is completed by the system of information and training meetings, while the producers learn about possibilities and principles of cooperation with WGRO S.A, as well as about many substantive questions.

**Summary.** Wholesale market, with the good example of Wielkopolska Gildia Rolno-Ogrodnicza S.A, is fulfilling the broader and broader role in the supply chain. By the intentional and conscious operations it is creating the market of deliverers, with promoting and awarding beneficial from supply chain point of view solutions as producers groups. Also the processing and distribution sphere are modern and both using logistics operators, which provide complex logistics services, and all that allows for create value added for goods offered by Gildia. In Informational flow sphere the Gildia is initiating the activities with the purpose on easy accession, even if there are some difficulties in flow realization (small availability to the Internet observed among agricultural products producers). All these activities make the Gildia an intermediary link for goods exchange between deliverers and customers of agricultural-food goods, and it becomes a specific logistics center which take an important place in the agricultural-food industry supply chain. It is also fulfilling the very important role as the intermediary link for information exchange between sellers and consumers.



Наведено задачу організації інформаційних потоків на продуктовому ринку Польщі. Дано аналіз інформаційних потоків на оптовому ринку і наведено приклад центру логістики Wielkopolska Gildia Rolno-Ogrodnicza S.A. Розглянуто проблеми удосконалення інформаційної системи для використання її у досліджуваному об'єкті.

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