Integration in Dairy Industry in the European Union and Evaluation of the Present Situation in Turkey

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Abstract

Broadly speaking, Integration may be defined as merger/amalgamation of enterprises in economic and legal terms. Through integration, a bigger market is created, the volume of commercial activity is increased and the industrial production is made more productive. Besides, the competitiveness in the global market is improved and the foreign direct investment is attracted to the country, which then benefit the countries economy. Forms of integration may differ both among countries and among sectors. In this paper, the extent of the integration in the dairy industry both in the European Union and in Turkey is examined, and the European experience is evaluated from the standpoint of Turkey.

Résumé

En général, l'intégration peut être définie comme une fusion/amalgamation d'entreprises en termes économiques et légaux. A travers l'intégration, il est possible de créer un marché plus grand, d'accroître le volume de l'activité commerciale et d'augmenter la productivité industrielle. En outre, la compétitivité sur le marché mondial s'en trouve améliorée et les investissements étrangers directs sont attirés dans le pays, ce qui se constitue un avantage considérable pour l'économie nationale. Les formes d'intégration peuvent différer selon les pays et les secteurs. Dans ce travail, on illustre un exemple d'intégration de l'industrie laitière dans l'Union Européenne et en Turquie et de plus, on évalue l'expérience européenne du point de vue de la Turquie.

1. Introduction

Food industry is an agriculture-based industrial sub-sector where a mutual interaction takes place between agriculture and industry and it both calls for and brings along the integration between these two sectors. The conditions which compelled food industry to integrate in agriculture and in time contributed to this integration stem from the specific characteristics of the agricultural sector to a great extent. Food industry, which has an organic link with agriculture, is directly influenced by the agricultural policies and agricultural structure. Only with the integration the food industry may obtain the required high-quality raw material at a convenient price when needed and also the producer who takes part in the agricultural activity can provide a price and market guarantee for his product. Forms of integration in food industry change according to the countries and sub-sectors. In this paper, the level of integration in the dairy industry in Turkey and in the European Union has been evaluated in terms of both horizontal and vertical integration.

2. The Importance of Integration in Food Industry and Dairy Industry

The first link of production chain in the integration of agriculture and industry is raw material, consequently, agricultural production. The degree of dependence on agricultural raw material is quite evident in food industry. The acceleration in urbanization and migration from rural areas to cities cause increases in the domestic demand for food items. Families who used to be productive in rural areas become consumers in the city, the change in the habits of food consumption accelerates the investments in food industry (Çadırcı, 1997). These improvements have put searches for integration between agriculture and food industry in the agenda in many aspects. Actually, the need for integration could be related with the fact that the food industry is dependent on the agricultural sector in terms of raw material while agriculture has its own characteristics. The seasonal production in agriculture sector calls for a great deal of raw material to be stocked, the production to be done intermittently or working at lower capacities in food industry.

Dairy industry is in close relations with dairy farming from which it obtains raw material. The industrialist or his agent meets with the farmer at least once a day, either in the morning or both in the morning and afternoon during milk buying. The farmer has no chance to market any other product everyday throughout the year, and in the same way, no other branch of production has a monthly income, either. This relationship carries a vital importance for both sides (DPT, 2000). Integration in dairy industry may occur as vertical and horizontal integration. Horizontal integration occurs either when enterprises, dealing with dairy farming, or which process dairy products merge with other similar enterprises in order to make new investments to extend scales, or when enterprise groups in the same activity level gather under cooperative-like organizations in order to act together in that particular activity level. Vertical integration, however, joins and coordinates the enterprises which function in different fields such as production, process, and mar-

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keting under the same management, to obtain raw material for backward integration and to market the products for the forward integration. The vertical integration between the farmer and the industrialist can be realized when farmer cooperatives form an establishment to process their own products, when there is a contractual production between the industrialist and the farmer or when the industrialist invests directly in dairy farming. Other examples of vertical integration are when the industrialist invests in retail sector to distribute and market his products or, as mostly observed in developed countries, when big retailers themselves produce their dairy products or have them produced under their brand.

3.The Recent Developments In Dairy Industry and Integration in the European Union

Today, mainly in developed countries which have an important place in dairy industry, an impressive integration has been observed at levels of both dairy farm and industrial milk processing enterprises (IDF, 2001). The advanced levels of horizontal and vertical integration in dairy industry in the EU, that has a leading role in the world milk industry, are the main draggers of this global trend.

First of all, dairy farming, which is the main sector that supplies the milk industry with raw material in the EU, has a well-organized and preserved structure. In the EU, there is a Common Market Organization for milk connected with the Council Regulation Nr.804, original principles of which were determined in 1968. According to the above mentioned regulations which were subjected to some changes in 1995 with regulation Nr.2931, the main regulations related to the milk sector are price determination and intervention, protection against the countries outside the EU through import/export control mechanisms, and the quota system that was put into practice in 1984 (Demirbas et al., 2002). In the long term, the most reflective result of these applications, which have been continuously brought up-to-date since 1968, was that the size of the dairy farms level has become larger, and in this sense horizontal integration has been realized. The quotas that have been in practice on milk production in the EU for the last 16 years have caused the number of dairy farms to fall from 1,738,000 in 1985 to 768,000 in 1999; in other words, approximately one million dairy farmers have left the sector. This means a 60 % decrease in the total number of farmers in the sector. During the same period, the increase in the average size of cow herds from 18.4 heads to 27.6 heads prove that the decrease in the number of dairy farms resulted from the mergers to a great extent. As the number of dairy farms decrease, their size and milk productivity increase (IDF, 2001). In the EU, despite the changeability from one country to another, 94.2 % of the raw cow milk is transferred to the dairy industry to be processed (European Commission, 2000).

After the structural change in dairy farming, the number of firms in the dairy industry has declined in the EU. Particularly starting from the beginning of the 1990's, mergers between the milk processing firms and big companies have occurred. In the year 2000, the ten biggest firms, according to the quantity of milk produced within the EU borders, were Arla Foods (Denmark/Sweden); Groupe Lactalis (France); Friesland Coberco (Holland); Campina Melkunie (Holland/Austria); Nordmilch (Germany); Bongrain/CLE (France); Dairy Crest (England); Nestlé (Sweden); Sodiaal (France) and Danone (France). When the firms in question processed 27 % of the milk produced in the EU in 1995, they reached 37 % in the year 2000. The common aspect of these firms is that their scales were reached either through mergers among the firms or through one firm buying the others. Mergers may occur within the same country as well as beyond the borders. Mergers can be also realized between private firms or cooperatives. As a matter of fact, of the above mentioned ten firms, Arla Foods, Friesland Coberco, Campina Melkunie and Nordmilch came out of the mergers between small cooperative enterprises. Merging tendencies have increasingly been continuing recently (IDF, 2001). On the other hand, the EU dairy firms that attract attention with their strong financial structures have entered the markets of different countries where they have formed partnerships with local firms through direct foreign investments (Demirbaset al., 2002). Among the EU firms, Nestlé, Danone, Unilever (Holland), Lactalis, Arla Foods, Friesland Coberco, Bongrain, Campina, Sodial and Nordmilch were considered among the biggest 20 firms in the world in the year 2001 (IDF, 2002).

When the organizational structuring of backward and forward connections in milk processing industry is analyzed in the EU, where big market concentration has been gradually increasing due to the horizontal mergers, vertical integrations attract attention. Farmers' cooperatives that applied vertical integration and buy and process the milk from their members have got the major share in the EU milk processing industry. In Sweden, Ireland, Finland and Denmark almost all of the dairy farms have turned into cooperatives while in Holland 83 % and in Luxembourg 81 % of the milk supply is controlled by the cooperatives. These ratios are 67 % in England, 53 % in Belgium, 52 % in Germany, 47 % in France, and 40 % in Italy. Furthermore, in Sweden, Austria, Germany and England nearly all of , in Holland 90 %, in Ireland 10 % of the milk production is done contractually. The ratio of contractual production in total production is 5 % in Denmark and 1 % in France, and in countries like Spain, Italy and Portugal no contractual production is observed (European Commission, 2000). When all the EU member countries are concerned, it is observed that in the countries which are assertive in dairy industry, the levels of cooperativisation and contractual production are higher; therefore, vertical integration seems to be increasing gradually. When the forward connections of milk processing industry, in other words, the distribution channels of milk and dairy products are analysed, it is observed that the large-scale industrial firms have been working in direct relations with the big retailers in the EU. Furthermore, in Europe, that pioneers a special trend in the world, retailers within the chain of supply either produce their own brands in milk as for many other products, or they have other producers to do the production and market the products themselves by putting their own brands (Cotterill, 2001). The consumers and the retailers in the EU are becoming increasingly influential on the process during which milk is brought into homes from where it is processed (IDF, 2001).

When integration is examined in its foreign trade dimension, it should be remembered that EU means market integration on its own. The basic means of the system are the requirement of EU quality certificate and Union preference on import and subvention regulations on the export of milk and dairy products (Kedaitiene and Hockmann, 2002). As a matter of fact, in the direction of the Uruguay Round decisions, Union members, which have a decline in their export to third countries, have started to direct their exports to Union member countries to compensate their losses. In this way dairy products trade has increased within the EU member countries (IDF, 2002).

4.The Recent Developments in the Dairy Industry and Integration in Turkey

It is hard to talk about a long-term, organized, and stabilized supporting policy related to dairy farming and dairy industry in Turkey. The targets and the means of dairy policies are involved in the general agricultural policies rather than being considered as a separate market organization. The inability to set up similar systems of Common Agriculture Policy (CAP) and Market Regulations within the frame of CAP in the EU, prevents from encouraging conditions to form both horizontal and vertical integration in the sector.

When the first step in dairy industry, dairy farming, is examined in terms of horizontal integration, very small-scale dairy farms are observed as a structural problem. This proves that the farms cannot extend in scale through new investments or mergers and therefore, this prevents the increase in the milk yield per head. Only 60 % of the total raw milk production in Turkey can be marketed (Demirbas et al., 2002).

According to the Food Industry Inventory Study held by the Ministry of Agriculture, there are 3840 firms that process milk and dairy products. Among them, there are firms that work in very modern conditions as well as others that have primitive working conditions, family firms and seasonal dairies. However, during the last 15 years, the general structure and character of the dairy industry has started to change and firms have been going for enlargement and modernization. Moreover, in recent years, foreign capital has started to invest in dairy industry in Turkey. Tikvesli-Danone, Mis Süt-Nestle are the striking examples of partnerships the EU big firms have had in Turkey. But the fact that only 15 % of the total milk production is being processed in modern dairy factories is a serious obstacle against this development trend. When the market shares of the firms in dairy industry are analyzed in Turkey, it is seen that as of 1999, Pınar Süt was in the lead, followed by Mis-Nestle, Ülker, Sütas, SEK. The total market share of these five firms is 80 %(Karagözlü and Kavas, 2001).

The integration levels of dairy industry firms with the dairy farms from which they obtain raw milk are quite low in Turkey. Only in recent years contractual farming raising has started to be applied by the big firms to the dairy farms with large quantities of cattle. Many other small dairy processing firms, on the other hand, obtain milk directly from the farmers or milk collectors without any agreement. In Turkey, cooperative-like organizations that bring dairy farmers together are not at the desired level, either. For this reason, farmers remain dependent on milk collectors that function in their regions. Furthermore, many serious problems occur during collecting, cooling, and transportation of raw milk to industrial firms. Insufficient cooperativization together with the small size of dairy farms hinder the system of "payment according to the fat and protein rate and microbiological quality" to be established and, therefore, the quality of raw milk cannot be improved. Only the leading industrial firms in Turkey can apply the premium system to the farms with which they have contractual production (Demirbas et al., 2002).

In the dairy industry in Turkey, it is observed that there are not enough cooperatives that produce feed, process and market the milk by applying vertical integration, and the present cooperatives are not functioning well enough. Out of the 1300 firms that function in the dairy industry, only 6 % belongs to the cooperatives. The ratio of the cooperatives in the marketed milk production is 4-7 % (Olgun and Artukoglu, 1998). The low level of cooperativization is a serious bottleneck in the integration of dairy industry and dairy farming.

5.The Evaluation of the Integration Experience in the Dairy Industry in the EU from the Viewpoint of Turkey

In the EU, when the milk sector is mentioned, both dairy farming and milk processing industry are considered. In the suitable conditions resulting from the stabilized agricultural policies, horizontal and vertical integrations have been formed in order to support the continuous development in the milk sector. In Turkey, however, in policies and practices regarding the sector, instead of a wholly approach, dairy farming and dairy industry are considered separately so it prevents integration to be established.

Most of the structural differences between the dairy industry in the EU and in Turkey result from the differences in the structures of the dairy farms. In Turkey, milk is produced in the small, scattered, dairy farms most of which have not more than a few heads of cattle, rather than specialized dairy farms. In the EU, however, specialized dairy farms are quite widespread and modern compared to Turkey and as a result of the combinations at the farm level, the number of dairy farms decrease while the size of herds increase. This trend, which is described as the rationalization of dairy farms, has influenced the structure of dairy industry. Parallel to the mergers between dairy farms, mergers have begun among the milk processing firms causing an important increase in their scales. Such mergers contribute to the development of dairy industry in a positive way.

The great part of the raw milk in Turkey is processed at the dairy firms that are functioning under primitive conditions while the modern milk firms have a limited share in raw milk processing. In recent years, there have been improvements in both technology and product ranges together with the entrance of some big holdings into the milk sector and the partnerships between some foreign organisations and Turkish firms. However, the fact that the amount of milk processed in modern factories has a small ratio in the total raw milk production makes horizontal integration in the milk processing industry more difficult.

Despite some differences concerning the countries, it is known that in the EU, cooperatives have been and will continue to be very important in the milk sector (Noeme and Agular, 1997). In Turkey, however, the fact that cooperatives have a small share in both milk industry and in collecting the raw milk and marketing it to the milk processing firms, and that the present cooperatives in the sector do not function effectively, appears as a problem. The insufficiency in cooperativization cause serious problems during the collecting, cooling and transferring of the raw milk to the industrial firms. Cooperatives' being low in number within the milk processing firms prevents the integration of agriculture and industry.

Another important bottleneck in the integration of dairy farming and dairy industry is the low rate of contractual production in agriculture in Turkey. In the EU member countries, contractual production brings several advantages like the assurance of necessary quality and quantity of input, adaptation of new technologies, easinesses in capital assurance and lowering the cost price. In Turkey, on the other hand, contractual production has started to be carried out by the big firms in recent years. With the system of contractual production, a re-structuring will be realized in dairy farming and activities will be held on topics such as organisation, research-development, education and extension, technical assistance, product processing, marketing and finance; therefore, the real production potential of the country will be achieved (Yavuz, 1996). Contractual production will also help to improve the quality of raw milk that suits hygiene and health rules by making important contributions to the formation of food safety.

The absence of organisational mechanisms such as Milk Marketing Unions or Boards, that would bring different parts of the sector together, makes it difficult to come over the problems experienced in raw material quality and price unstability. Organizational inadequacy in the sector is one of the main factors that prevents dairy industry from developing.

Finally, when the distribution channel of the processed milk and dairy products is analyzed, it is observed that many small-scale firms are marketing their products directly in their own firms or through the wholesalers; while the big industrialists are working with the retailers. The relationship between the industrialist and retailer is mostly established through big hypermarket and supermarket chains, as in the EU countries. However, the concept of the chain of supply has not become so mature in Turkey as in the EU countries.

6. Conclusion

Integration in the milk sector should be established in a way to contain most or all of the procedures starting from feed production to milk production, and to marketing the processed milk and delivering it to the consumer. For the development of the dairy industry, it is important for the dairy farms and dairy industry firms to apply both horizontal integration by merging on each of these activity fields and to realize vertical integration with each other. As the EU experience puts forward, integration in dairy industry can only be provided parallel to the increase in horizontal integration in dairy farms and the increase in the scales of the dairy farms. In this sense, cooperatives have very important duties to perform in realizing horizontal and vertical integration in dairy industry in Turkey. In Turkish dairy farming, where small farms are dominant, horizontal integration could be realized by increasing the ratio of cooperatives and the functions of the present ones. Since the dairy farms are very small in scale, farmers have to be effective during the input procurement, production, processing and marketing of the milk in order to raise their income level. To provide the integration of dairy farming with dairy industry, the problems of the present cooperatives need to be solved. In order to strenghten the backward connections of dairy industry, more contractual production-based integration models should be established to include the small producers. With the well-functioning cooperatives and contractual production models, the growth firms in dairy industry will be accelerated if the required quality and quantity of milk is transferred to industry in suitable conditions. This is the foremost condition for the existence of dairy industry in the process of conforming to the EU.

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