

Problems of Enhancing the Competitiveness of the Dairy Sector in a Developing Economy at the Time of Economic Integration into the European Union

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Tyrime siekta išryškinti konkurencinių pranašumų didinimo svarbą bei būdus šalies pieno ūkyje, Lietuvai tapus ES nare ir didžiulės bendros rinkos dalimi.

Pasiremiant M.Porterio konkurencinių pranašumų teorijos nuostatomis, konkurencingumo lygio dinamikos tendencijas apibūdinantys faktoriai skirstomi į dvi grupes: 1. formuojantys konkurencines paskatas šakos viduje (žaliavinio pieno tiekėjų galimos įtakos; aštrėjanti kova tarp veikiančių perdirbimo įmonių ir naujų konkurentų atsiradimo grėsmė). 2. įtakojančios iš išorės (nacionalinės vyriausybės bei ES BŽŪP programinės nuostatos; ciklinis pasaulio pieno produktų rinkos vystymosi pobūdis; valiutų kursų kaita; kt.).

Visapusiškas minėtų faktorių įvertinimas leidžia prognozuoti pieno ūkyje veikiančių ūkininkų subjektyvų bazinius konkurencingumo rodiklius: produktų pardavimų apimtį eksportinėse bei vietinėse rinkose, ūkininkų veiklos pelningumo lygį.

Now that Lithuania has become a member of the European Union (EU), the problem of economic integration of national economy and its sectors into the economic sphere of a larger and more economically developed block acquires a much greater significance. In this context, the competitiveness of a given sector of the national economy becomes a defining factor in the success of integration. In particular, the need to define the roles and actions of various stakeholders ranging from business enterprises to governmental and non-governmental organisations in this process clearly stands out. In this study, the dairy sector in Lithuania was chosen as a unit of analysis. The

dairy sector, viewed foremostly as an inter-relation between producers of raw milk and milk processing enterprises, will feel 'the strong winds of change' primarily as a result of higher government intervention and direct support payments.

This study utilises a comparative analysis and synthesis of theoretical and practical ideas, as well as analysis of secondary data and relevant indicators (export performance, profitability, etc.) with the aim to:

- Review various methods of determining the competitiveness of a given economic sector espoused in recent literature on the subject,

- Offer M. Porter's theory of competitive advantage as a framework for evaluating the issues relating to the determination of the competitiveness,
- On the basis of the proposed analytical framework, analyse the existing competitive situation in the Lithuanian dairy sector and its economic potential post EU enlargement.

1. Enhancing Competitiveness – the Key Strategy of Economic Development Both at a Sector and Company Level

It is not easy to determine who and in what context was the first to discover the economic problem of competitiveness. The names of A. Smith, J.S. Mill, D. Ricardo are often mentioned, the latter as a founder of the theory of competitive advantage. Despite the fact that this theme is being actively investigated in the recent economic literature, neither the precise definition of competitiveness nor the overarching theory have been formulated to date. Competitive advantage is often analysed at different functional levels of the economy: a) firm or sector level, with a particular emphasis on the ability to sell products in the world markets and minimisation of costs per unit of production, b) national economy level, singling out indicators like the growth rate of exports and foreign trade balance; c) global economy level, focusing on 'economic race' among different countries. Even the evaluation of competitiveness from the perspective of achieved remuneration levels for labour (wages) is not uncontroversial: on the one hand, it is claimed that only the ability to achieve high remuneration levels and effectively compete at all levels is the key (29), while, on the other hand, low remuneration levels that reflect the present

status of economic development are also viewed positively in the context of achieving competitive advantage (16).

Given such a multi-faceted theoretical definition of competitiveness, it is not surprising that the formulation of extensive quantitative measures of competitiveness is extremely difficult. As a rule, many authors propose to use indicators based on comparative prices for products across different countries, ratios of prices to costs of production and profit margins (2, 13, 46). Measurement problems relating to the accuracy of production costs (particularly in the primary sector), however, plague the practical application of these indicators. Furthermore, pricing and price comparability are often impeded by the presence of income support and market intervention mechanisms which can change. An example of such a changing support system, EU Common Agricultural Policy (CAP), is briefly discussed below in order to outline a potentially very unstable nature of quantitative indicators of competitiveness based on prices.

A long-term CAP reform started in 1992, named after EU Commissioner R. MacSharry, aimed to re-orientate the support system away from the maintenance of artificially high prices for production and towards income support mechanisms such as direct payments. In other words, the aim of the reform was to induce a reduction in production quantities and gradually expose the sector to the global market conditions.

On June 26, 2003, the Agriculture Ministers of the EU, according to the EU Agriculture Commissioner F. Fischler, sent a key message to the world: EU is forming a new long-term trade policy that is compliant with WTO requirements to reduce export subsidies and other support afforded to local producers and results in a more open access to its markets for foreign products (3).

The importance of CAP is mirrored in the EU budget, 46% of which goes to EAGGF, European Agricultural Guidance and Guarantee Fund, i.e. the funding of various market intervention initiatives. The total support for the dairy sector amounts to C 2,7 bn. or 6% of total CAP funds (1) and displays a clear decreasing tendency (in 1989, the support reached 19,1% of total CAP funds).

In view of the restrictions on Eurozone member states budget deficits as prescribed in the Stability and Growth Pact and attacks on EU farm subsidies from various members of the WTO, it is increasingly difficult to predict the financial and competitiveness implications for various agricultural sectors of further reforms of CAP. Furthermore, it is extremely difficult to image any newcomers to the EU having a significant influence on negotiations at this level.

Besides, external macroeconomic factors such as nominal and real exchange rates and their predictability further complicate the calculation of any quantitative competitiveness measures based on prices and costs.

The issues of the competitiveness of the Lithuanian dairy sector have been raised by a number of authors at various conferences and exchanges. Also, a number of prognostications and development paths have been put forward (8, 9, 14, 17).

In our view, the application of M. Porter's analysis of competitive advantage to the Lithuanian dairy sector offers a fresh view on the competitiveness issue by allowing to distinguish different sources of competitiveness at a sector level as well as utilizing qualitative factors in the analysis. In particular, having identified the key constituent parts of competitive advantage, such as cost reduction and product differentiation, M. Porter relates these parameters to the level of competitiveness in a given sector as determined by:

- Market power of suppliers;
- Competitive position of existing players and the possibility of new market entrants,
- Role of external factors in supporting or hindering structural changes (29). For the purposes of this study, we use the role of national and EU policies in effecting structural changes in the sector operating environment,
- Influence of external and market-specific factors (e.g. exchange rates).

We, of course, do not claim that the sources of competitive advantage as outlined above are stable or quantifiable, however, we believe that by using this methodology we can at least pinpoint the potential 'unused resources', e.g. cost savings that can enhance the competitiveness of a given sector.

In the following pages of this study we attempt to evaluate the competitiveness of the Lithuanian dairy sector using the parameters outlined above. Initially, we start with a review and estimation of some quantitative competitiveness indicators for the dairy sector in Lithuania.

2. Evaluation of the Dynamics of Competitive Advantage in the Dairy Sector

One of the key features of developing economies is a high share of agricultural output in total production. It is therefore not surprising that Lithuanian economy is characterized by a relatively high, although decreasing, share of agricultural production. In 2002, agricultural sector accounted for 7.1% of gross value added and 17.8% of total employment (22). Furthermore, circa 20% of budgetary revenue is generated from various taxes on agricultural production and consumption (19).

Within the agricultural production, dairy sector historically occupies an important posi-

tion (high level of self-sufficiency in dairy products as measured by the ratio of yielded to domestically consumed volume of milk is indicated by the ratio of 1.5) (47). The total production and exports of dairy products make up respectively about 20% and 32% of all agricultural production, whereas total income received by farmers from the sales of raw milk accounts for about 33% of the total revenue from the sales of agricultural produce (22).

The production of dairy products in 2000–2002 made up around 4.5% of the total manufacturing output and about 24% of the total foodstuffs production. The average annual employment in the sector fluctuated between 10.3 thous. and 8.8 thous. employees over the same time period which equated to about 3.8% and 20% of the average annual employment in the manufacturing and foodstuffs production, respectively (22).

Based on discussions in Section 1, we present a set of possible indicators for the purposes of measuring the competitive advantage.

2.1. Key indicators showing:

- position in domestic and export markets;
- efficiency of production as measured by profitability.

2.1.1. Share of exports in total sales (see Table 1):

2.1.2. Share of exports in total sales (see Table 1):

- a) By volume, t (sales in domestic market / all sales)
- 2001 – 74.2%
2002 – 74.8%
- b) By value, mln. Lt (sales in domestic market / all sales)
- 2001 – 53.9%
2002 – 57.6%

2.1.3. Net Profit Margin % (Net Profit / Sales)

- 2001 – 3.8%
2002 – (-1.0)%

How should these results be evaluated? Unfortunately, no clear answer can be given. On the one hand, the fact that domestic producers are able to sell their products in various markets would tend to emphasise the competitiveness and economic viability of the sector. It is also noteworthy that higher value-added products make up exports in comparison with the sales in the domestic market as indicated by the relationship between sales expressed as volume and as monetary value. On the other hand, the presented indicators do not allow us to determine whether unused possibilities for enhancing profitability, for example, exist within the

Table 1. Production and Sales of Dairy Products in 2001–2002 (10–12)

Year	Production in units (thous. t)	Sales			
		in units (thous. t)		at current prices	
		total	in domestic market	total	in domestic market
2000	225.5	224.8	165.9	938.7	516.9
2001	244.1	236.0	175.2	1020.2	549.5
2002	262.4	253.0	189.1	982.7	566.2

sector and can potentially lead to a higher competitiveness.

2.2. The Power of Suppliers

To simplify slightly, we treat only the producers of raw milk as suppliers, because raw milk as an input accounts for up to 75% of the total production costs for the final dairy produce. The sales of raw milk to milk processing companies during the period 2000–2003 amounted to 1.1–1.2 mln. t per annum. It is obvious that only an effectively functioning raw milk production sector can meet the demand for raw milk from milk processing companies and ensure the stability of the whole chain of production in the dairy sector.

However, the predominance of small farms (see Table 2), the smallest of which had 1–2 and 3–9 cows and accounted for 80% of all milk-producing cows, in principle occasions the presence of other problems in the sector such as:

- low milk yield (in 2001 milk yield per cow was 3903 kg, in 2002 – 4003 kg, in 2003 – 4205 kg (24), while the EU average in 2001–2002 was 5765 kg, more specifically by country: in Sweden – 7494 kg, the Netherlands – 7105 kg, Denmark –

6927 kg, Poland – 3902 kg, Hungary – 5747 kg, Estonia – 5138 kg (47)),

- inadequate quality of raw milk – milk of highest quality as a percentage of total delivered quantity was 52% in 2001, 65% in 2002 and 79% in 2003 (24),
- a significant share of farms is still not compliant with EU veterinary requirements (28).

The share of cows on large-scale farms (50 and more cows) equals to only about 10% and has a tendency to decrease.

A further about 9% of all cows are bred in medium-scale family farms (10–49 cows). Despite its small overall share, this segment holds the best promise of future growth.

A generalized indicator – an average number of cows per farm has increased from 2 to 2.3 over the four-year period. In comparison, this indicator in Estonia in 2001 was 7, EU average – 28, UK – 74 (47). It is clear, therefore, that no break-through in the sphere of farm consolidation and deeper specialization has taken place.

The situation is further complicated by low prices of raw milk (see Table 3) paid by milk processing companies, often to offset high production costs in other areas and maintain their market share in the sales of final goods.

Table 2. Distribution of Milk-producing Farms by Number of Cows (24)

Number of cows per farm	1999 10 01		2003 06 01	
	Number of farms	Total number of cows	Number of farms	Total number of cows
1–2 cows	193 893	263,4	149 822	199,6
3–9 cows	37 816	141,9	39 433	162,3
10–19 cows	631	7,6	2 204	27,8
20–29 cows	103	2,3	339	7,9
30–49 cows	68	2,5	198	7,3
50–99 cows	90	6,5	119	7,8
>=100 cows	213	50,3	134	38,2
Total:	232 814	474,4	192 259	450,8

Hence, the result is an ineffective raw milk production sector in need of a large-scale modernisation and low prices of raw milk (around 40% of the EU average). A real probability of not meeting the quality standards

this aid: there were 114 requests for SAPARD funds submitted in 2000–2004 for the sum of 77.3 mln. Lt and 61 agreements concluded at the start of 2004 for the total sum of 40.9 mln. Lt (24). The EU funding clearly does repre-

Table 3. Raw Milk Purchase Prices, Lt per t (24, 47)

<i>Production</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>
Milk (basic fatness)	583	584	581	448	506	457	409
of which: subsidy	53	47	88				

for raw milk and national quota set by EU emerges. An insufficient supply of raw milk would increase the tensions between suppliers of raw milk and milk processing companies and among the members of each group. The EU's position on this issue is clear: the raw milk production sector needs to be modernised by creating specialised farms.

According to studies, a specialized milk-producing farm should have no less than 30 'high-productivity' cows (23). Of course, substantial financial resources would be required for the execution of restructuring on this scale. It is estimated that construction expenditures to create a separate barn for 1 cow and a calf would amount even to 7–8 thous. Lt in the case of renovation of an existing barn or 12–25 thous. Lt for a new construction. Taking into account other expenditures like milking lines, refrigerators, etc., the total required capital expenditures for milk-producing farms would reach around 880 mln. Lt (19). According to other calculations, investment into primary milk production will amount to 1200 mln. Lt (18) in the period 2002–2009.

An important role in the modernization of the Lithuanian dairy sector is played by the EU financial aid. The flows of this aid, however, are limited by the ability of farms to absorb

sent a solid foundation for the creation of effective and specialized farms.

On the other hand, CAP provides financial incentives not to produce raw milk suitable for processing in commercially unviable farms (the majority in Lithuania).

The national program aimed at modernizing specialized dairy farms by, not least, making them compliant with EU regulations currently does not 'pull its weight' when it comes to the size of the financial support. Disbursements amounted to 6.8 mln. Lt in 2002 and 8.5 mln. Lt in 2003 (20; 23). A continuation of this program would allow to modernize 367 dairy farms and establish 158 new specialized dairy farms by the year 2007.

The decision by the government to designate the 'lion's share' of national budgetary funds allocated to agriculture to direct payments as opposed to the creation of specialized farms and enhancement of their productive capacity is unlikely to improve the situation.

According to the proposal by EU Commission, the schedule for introducing direct payments measured as a percentage of the existing EU basis is as follows: 25% in 2004, 30% in 2005, 35% in 2006. It is possible to increase the direct payments up to 40% of the EU level during this period with the shortfall of funds

being covered by EU rural development funds and the national budget. This would represent an optimal schedule for increasing the income of farmers.

However, the Lithuanian government has decided that direct payments will amount to 55% of the EU level (6) funded by a 160 mln. Lt facility from the national budget. This, unfortunately, represents only a social support payment, the opportunity costs of which are foregone investments into the creation of modern, specialized dairy farms.

In the longer run, it is clearly in the interest of dairy producers to support a higher concentration of raw milk producers in the market through co-operation with raw milk producers.

A formation of co-operatives would not only allow to synchronise operations, but it would also present a platform for expressing a collective interest of farmers. Unfortunately, as at the end of 2003, there were only two co-operatives of raw milk producers (24). In the meantime, sales of raw milk by co-operatives as a percentage of all farms amounted to 98% in the UK and Denmark, 84% in the Netherlands, 50% in France, 48% in Germany and 18% in Spain (35). As the scale of farming increases, the operations that lend itself to co-operation include production, delivery and sale to dairy companies. The possibility of vertically integrating raw milk producers with dairy producers under a single company is worthy of consideration due to efficiency gains through logistic systems for delivery and better quality control.

In summary, the existing structure of the raw milk production sector with a predominance of small-scale farms does not augur well for the development of a competitive advantage in the dairy sector. It is feasible that a shortage of quality milk would negatively af-

fect the sales and profits of dairy producers. On the other hand, measures such as financial incentives from the government to foster the creation of large-scale farms and encouragement of vertical integration of production could help to cure the existing inefficiencies.

2.2.1. Increasing Competition Among Existing Producers and the Threat of New Entrants

This section reviews the following key factors that determine the degree of competition in the milk processing sector:

- the concentration of production;
- market concentration by sales in domestic market;
- the degree of specialisation in different product type;
- the level of capacity utilisation.

The milk processing is classified as a branch of traditional manufacturing which requires a substantial amount of raw material and labour inputs. Also, the efficiency of production is dependent on the market concentration which, in the case of Lithuania, has reached a high level. 37 companies are engaged in the production of dairy products, 19 of which have more than 100 employees, producing 97.6% of overall output. 7 largest companies, employing 500 and more workers produce 73.8% of output (32).

A further testament to a very high degree of market concentration is that most of the aforementioned companies belong to the three main company groups: AB "Rokiškio sūris" (JSC "RS"), AB "Pieno žvaigždės" (JSC "PZ"), AB "Žemaitijos pienas" (JSC "ZP"). The above company groups acquired and processed 89% of all raw milk in 2002 (24).

A more formal estimation of the degree of market concentration on the basis of sales in

the domestic market can be effected using Herfindahl Index (HI), given by:

$$\Sigma (i^2)$$

where i is the market share of a given company (in decimal form).

The HI value of less than 0.1 implies a low level of concentration, between 0.1 and 0.18 a medium level and above 0.18 a high degree of concentration (34).

In 2002, the sales of all domestic milk processing companies in the domestic market amounted to 566 mln. Lt, resulting in the following market shares and HI values: JSC "RS" had sales of *circa* 152 mln. Lt, a market share of around 27% and an HI value of 0.072 (0.269 squared), JSC "PZ" – sales of around 192 mln. Lt, a market share of around 34% and an HI value of 0.115, JSC "ZP" – sales of around 158 mln. Lt, a market share of around 28% and an HI value of 0.078. This results in an overall value of HI of 0.265, confirming a high degree of market concentration.

On the other hand, the degree of specialization by product type is low in this industry as all company groups essentially produce the same type of dairy goods such as drinking milk, cream, sour milk, yoghurt, sour cream, curd, cottage cheese; fat cheese; butter; dried milk and whey products. To illustrate this, in the period 2001–2003 the three main company groups produced the following quantities of:

- ♦ butter: JSC "RS" around 5.0 thous. t; JSC "PZ" around 4.0 thous. t; JSC "ZP" around 4,8 thous. t;
- ♦ fat cheese (20.0; 9.0; 6.0 thous. t respectively);
- ♦ dried milk and whey products (3.5; 6.5; 6.0 thous. t respectively);

- ♦ the remaining production volume is accounted for by fresh dairy produce (45).

The above factor also occasions a low level of capacity utilisation, which amounts to 65–70% and is also affected by a pronounced seasonality of raw milk production. The difference in the output of raw milk in the most productive period (June to August) and in other times amounts to 50–80%. Of course, this seasonality effect causes variations in the level of capacity utilization throughout the year.

Possibly as a mitigating factor, the three largest company groups of milk processing industry are currently undergoing modernization on the basis of about 30 mln. Lt worth of financial support administered within the SAPARD framework (23). However, the positive effects of these measures on the competitiveness of the sector will be limited by business environment, in particular the production of raw milk, capacity utilization, sales systems, etc., which is slower to change. A noticeable change of the landscape would occur following the merging of the three largest dairy producers which would allow to reduce the costs of production by 10–12%, reform the market for raw milk and raise the profitability of the business (8). This, however, is currently banned under the Lithuanian Competition Law as about 85% of the market would be controlled by the merged company, although post EU accession such limitations lose their meaning.

The experience of Lithuanian enterprises, not least in the food manufacturing sector, shows that one of the most reliable ways of enhancing competitive advantages is through the attraction of strategic investors representing, directly or indirectly, the large-scale transnational corporations, and the direct investments that come with it. In the dairy sector, foreign capital makes only about 15% of the total share capital (15).

Hence, the threat of new entrants into the market should not be overlooked. Large-scale Western European corporations, having privatized large enterprises in Poland and other new EU member states, are also actively looking for export opportunities in the Baltic States. The outcome of this export drive will be clearer to see in the near future.

The key strengths of the transnational corporations are embodied in the sheer scale of their production and sales volumes. Forty largest dairy producers in the EU processing 77.4 mln. t of raw milk in their EU-based companies only (on average, 1.9 mln. t per company), whereas the 10 largest companies (Danish-Swedish 'Arla Foods', French 'Lactalis' and 'Danone', Dutch 'Campina and others) accounted for 44.3 mln. t (25). By contrast, the three largest company groups in Lithuania processing only 250–350 thous. t of raw milk per annum each.

Yet another important parameter affecting the competitiveness of the domestic producers relates to the actions of large-scale supermarkets (currently accounting for more than 70% of all final sales of dairy produce), also concentrated in only a few dominant company groups. Given the existence of over-production in the dairy sector as well as new import opportunities, it is fair to assume that the pressure from large-scale supermarkets on producers to cut their prices will grow.

Overall, on the basis of the above discussion, it is difficult to conclude that the tendencies outlined are likely to result in enhanced competitiveness of the domestic producers in the dairy sector.

2.2.2. Influence of National Government and EU Policies

After EU accession, however, the concept of internal market will change for the domestic

producers. It will be possible to freely (subject to meeting the quality requirements) offer the products to more than 450 mln. of consumers (in 2002, export to EU amounted to 100 mln. Lt and made up about 20% of the total export volume of dairy products). A higher price level in the EU, including dairy products, is clearly a competitiveness-enhancing factor.

Overall, the prospects for solid market position of producers in the EU and the growth of export volumes generally will depend on how fully the opportunities created by EU financial support will be taken advantage of. The competitive battle with the biggest producers over EU and other markets has recently been gaining in intensity. Export subsidies, available as of 27 August, 2003 would allow the producers to receive 1.97 Lt/kg for skimmed milk powder (SMP) and 6.15 Lt/kg for butter exported outside the EU. For the year 2002, Lithuania exported 73% of milk powder (about 8 thous. t) and 55% of butter (about 4.5 thous. t) outside of the EU. The maximum export subsidy for this production could be around 40–45 mln. Lt. However, Lithuanian companies will have to compete with their EU counterparts for export subsidies as Lithuania has not managed to negotiate their own subsidies with the WTO. Furthermore, the procedures for granting export subsidies have not been finalized yet. Currently, the system of tender is proposed whereby the subsidy is accorded to the bidder offering to export at the lowest prices.

Dairy producers, on the other hand, will be able to take advantage of the market intervention mechanism (it has not functioned in Lithuania prior to EU entry), however, due to the ongoing CAP reforms, the significance of such mechanisms is expected to recede:

- intervention prices for butter and SMP are being reduced by 25% and 15% re-

spectively over 2004–2007, and annual intervention quantities are being changed as follows: a reduction from 70,000 t in 2004 to 30,000 t in 2008 for butter and a remaining stable quantity of 109,000 t for SMP (3).

It is also important to increase the size of the local market by adopting various measures to encourage the consumption of dairy products, e.g. subsidized provision of milk products to schools, in particular given that the existing consumption of dairy products per head is not high (see Table 4).

These tendencies can be viewed as positive for the enhancement of competitiveness in the dairy sector.

2.2.3. The Influence of Other External Factors (e.g. Exchange Rates)

It is, of course, very difficult to predict the effects of changes in macroeconomic variables on competitiveness. Nonetheless, in this section we would like to illustrate the effects that changes in these factors can have. The falling value of USD in relation to Litas (2001 – 4 Lt/USD, 2002 – 3.7 Lt/USD, 2003 1H – 2.96 Lt/USD (44)) has exerted a substantial influence on prices of exported goods (see Table 5).

It is estimated that due to declining prices in 2002 as compared to 2001, exporting enterprises have lost about 28 mln. Lt of potential revenue and about 12.5 mln. Lt in 1H 2003 compared to 1H 2002. Accordingly, the pre-

M. Porter's analysis of factors that drive competitiveness. In our view, M. Porter's theory is capable of providing a different analytical framework which allows us to identify potential sources of improved competitiveness as opposed to just measuring the result (be it prices

Table 4. Household Expenditure on Dairy Products and its Structure (26)

Year	Per capita per month,		Structure, %
	Lt	general	by group (food products)
2000	14.46	4.27	11.33
2001	14.14	4.07	11.38
2002	14.23	4.02	11.79

tax profit of the three largest groups of milk processing enterprises (JSC "RS", JSC "PZ", JSC "ZP") has developed as follows: 2000 – 25.6 mln. Lt, 2001 – 42.3 mln. Lt, 2002 – loss of 3.7 mln. Lt (32). The net profitability of the dairy sector was 2.9% in 2000, 3.8% in 2001 and –1% in 2002 (24).

Conclusions

In this study, we have attempted to diverge from more traditional ways of assessing the competitiveness of a given economic sector based on quantitative indicators such as profitability, share of exports in total sales and comparison of comparable product prices. Instead, we adopted a different approach based on

Table 5. Changes in the Producer Prices of Dairy Products, Change over Relevant Period, % (39–43)

Time period	Total sales	Sales in domestic market	Export sales
2001 (Dec. 2000 – Dec. 2001)	5.0	6.6	2.1
2002 (Dec. 2001 – Dec. 2002)	–8.8	1.4	–23.5
2003 1H (Dec. 2002 – June 2003)	0.4	3.9	–6.4

or export share) of the interaction of these forces. The advantage of this method is that it allows a more detailed examination of various parameters that affect competitiveness, but, on the other hand, it is often possible to only indicate the direction in which competitiveness is affected, as opposed to a quantitative estimation.

Consequently, four parameters that affect competitiveness were identified and used to analyse the dairy sector in Lithuania :

- ♦ Market Power of Suppliers

In the case of the dairy sector, in Lithuania the key problems relating to the predominance of small-scale farms, low milk yield and quality as well as the lack of emphasis on channeling funds for restructuring as opposed to direct support payments were identified as having a negative effect on the competitiveness of the sector.

- ♦ Increasing Competition Among Existing Producers and the Threat of New Entrants

While only three producers were found accounting for the 'lion's share' of production, the similarity of the products would likely mean that the competition is not hindered. However, other problems like a low specialization of pro-

duction and the resultant relatively high production costs and low capacity utilization levels were found to be impeding the development of the competitive advantage. Measures like merge of the dominant market players, coupled with the arrival of a major multinational competitor, could lead some way towards encouraging greater product specialization and lower costs of production.

- ♦ Role of national government and EU policies

In general, access to the European market and availability of export subsidies are to be viewed as positive factors that enhance competitiveness.

- ♦ The influence of external and market-specific factors

Here, the effects of exchange rates on the prices of exported dairy products were found to have had a negative influence on the revenue stream of the companies active in the Lithuanian dairy sector.

Overall, with the help of M.Porter's analytical framework, the study has identified the possible areas within the dairy sector in Lithuania where measures need to be taken to enhance the sector's competitiveness.

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LIETUVOS PIENO ŪKIO KONKURENCINGUMO DIDINIMO PROBLEMAS INTEGRACIJOS Į ES EKONOMINĘ ERDVĘ LAIKOTARPIU

H. Karpavičius

Santrauka

Tyrimu siekta išryškinti konkurencinių pranašumų didinimo svarbą šalies pieno ūkiui ir būdus, Lietuvai tapus ES nare ir didžiąsias bendrosios rinkos dalimi.

Remiantis M. Porterio konkurencinių pranašumų teorijos nuostatomis, konkurencingumo lygio dinamikos tendencijas apibūdinantys veiksniai skirstomi į dvi grupes: 1. formuojantys konkurencines paskatas šakos viduje (žaliavinio pieno tiekėjų galima įtaka; aštrėjanti veikiančių perdirbimo įmonių kova ir nau-

jų konkurentų atsiradimo grėsmė); 2. darantys įtaką iš išorės (nacionalinės vyriausybės bei ES bendrosios žemės ūkio politikos programinės nuostatos; ciklinis pasaulio pieno produktų rinkos plėtros pobūdis; valiutų kursų kaita; kt.).

Visapusiškas minėtų veiksnių įvertinimas leidžia prognozuoti pieno ūkyje veikiančių ūkio subjektų bazinius konkurencingumo rodiklius: produktų pardavimų apimtį eksportinėse ir vietos rinkose, ūkinės veiklos pelningumo lygį.

Įteikta 2004 m. birželio mėn.