STRUCTURAL CHANGES OF THE HUNGARIAN MEAT PROCESSING INDUSTRY INFLUENCING THE QUALITY STRATEGY OF THE PIG SECTOR

A SERTÉSÁGAZAT MINŐSÉGSTRATÉGIÁJÁT BEFOLYÁSOLÓ SZERKEZETI ÁTALAKULÁS A HAZAI HÚSIPARBAN

NAGYNÉ PÉRCSI, Kinga

SZIU-Gödöllő, Institute of Agricultural and Regional Economy
Tel: +36-28-522-000/2060, Fax: +36-28-410-802, e-mail: Nagyne.Percsi.Kinga@gtk.szie.hu

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ABSTRACT

The Hungarian company structure in the meat industry is very different from the structures in the major meat industrial EU countries. While in the latter ones the concentration and specialization have strengthened, in Hungary these processes did not happen or in just a limited way. Therefore the Hungarian companies face handicaps concerning economies of scale and specialization compared to the EU companies.

KEYWORDS: co-ordination, concentration, specialization , quality strategy, meat industry

ÖSSZEFOGLALÁS

A magyar húsipar vállalkozási struktúrája jelentősen különbözik az Európai Unió meghatározó sertéshús-termelő országaiban kialakult struktúráktól. Míg az utóbbiakban erősödött a koncentráció és a specializáció, addig Magyarországon ezek a folyamatok nem, vagy csak korlátozottan érvényesültek. Következésképpen a hazai vállalkozások méretgazdaságosság és szakosodás terén versenyhátrányban vannak az unióban működő cégekkel szemben.

KULCSSZAVAK: koordináció, koncentráció, specializáció, minőségstratégia, húsipar

DETAILED ABSTRACT

Publikációiban számos szerző hívta már fel a figyelmet arra, hogy hazánk EU - csatlakozásának egyik kulcskérdése a sertéshúsvertikumban is a szerkezetátalakítás megvalósítása, a versenyképes üzemi szerkezet kialakítása.

Az elaprózódott húsipari szerkezet, figyelembe véve a kiskereskedelem alkupozíciójának erősödését, akadályát képezi az ágazati minőségstratégia megvalósításának is, hiszen emiatt a húsipari szereplők nagy része képtelen érdekei érvényesítésére, életképes koordinációk, integrációk létrehozására és működtetésére. Példaként említhető a márkázott húsprogramok korlátozott működése.

A magyar húsipari vállalkozások struktúrája jelentősen különbözik az Európai Unió meghatározó sertéshús-termelő országaiban kialakult struktúráktól. Míg az utóbbiakban erősödött a koncentráció és a specializáció, addig Magyarországon ezek a folyamatok nem, vagy csak korlátozottan érvényesültek. Az ezredforduló után, az EU csatlakozásunkkal (a követelmények teljesítésével) összefüggésben, hazánkban is megindult egy bizonyos mértékű koncentráció és specializáció, de még mindig jelentős kapacitástöbblettel küzdünk, és számos területen maradunk el a fejlett sertéshús-termelő Európai Uniós országoktól.

A koncentrációt és specializációt az is gátolta hazánkban, hogy míg az Európai Unióban az elsődleges feldolgozás (darabolás, csontozás), amelyet döntően a vágóhidak keretei között végeznek, teljesen elkülönül a tovább-feldolgozástól, addig nálunk ez a „kombinát-elv" érvényesülése miatt nem jellemző. . Ugyanakkor ez utóbbi, az üzemkialakítással összefüggésben, számos esetben okozott nehézséget a húsipar szereplői számára, az Európai Unió élelmiszerbiztonsági, és higiéniai előírásainak betartása terén.

A tanulmányban a szakirodalmi publikációk, a rendelkezésre álló konkrét adatok és információk alapján elemeztem a hazai húsipar struktúráját, főbb változásait a hazai és a nemzetközi helyzet közötti különbségeket, a strukturális átalakulás fontos tényezőit.

INTRODUCTION

The professional literature mention the following structural problems in the domestic food industry irrespectively of the sector: low utilization of capacities, the lack of adequate specialization, low value-added production, the break up of the relations between the manufacturers and the processing companies as well as the lack of investments aimed at modernisation.

Meanwhile in Hungary food retail is concentrating into larger and larger structural units and it is becoming more and more determining within the sales channel. With its improving ability for bargaining on the market retailing is imposing more and more pressure on the processing and basic material production. Its requirements on the manufacturers and processing companies get close to the Western-European level [5]. This can be a positive effect, but all these are also obstacles of the implementation of the quality strategy of the sector. Because of the fragmented structure of the pork processing industry, the enterprises can not put forward their interests, form and efficient co-ordinations. We can mention as an example the limited operation of branded meat programs, which does not function appropriately mostly due to the lack of participation of the trade.

So until the early 80s the coordination function of the food industry was determining, by now this role was taken over in the retailing of food, successfully integrating the wholesale trading [5].

MATERIALS AND METHODS

The analysis of the structural changes in the Hungarian meat industry is a difficult job. The methods for the comparison of the different structures are not too matured, worked out. It must be taken into consideration that the competitive structures of certain member states of the EU have been evolved for decades and have a great tradition. Hovewer, contrary processes featured the evolution of the Hungarian pig industry in the 90s. The economic and market circumstances suffered a rapid change after the change of regime. Most parts of the former structures splitted up, and the private sector took the lead [1]. Regarding all these I analised in my article the structure of the Hungarian meat industry, its main changes, the differences between the domestic and international situations and the most important factors of structural change, on the basis of the available data, information and the professional literature.

Structural changes in the 90s

To determine the development directions it is useful to review the structural changes of the 90s, the structural changes in the domestic meat industry, and to compare the present situation with that of the EU accession.

The domestic production of slaughter animal and meat significantly changed in the 90s. Companies with very different technologies have been set up concerning both their technical levels and hygiene conditions [2].

Based on the surveys carried out in the meat sector in the late 90s we can see that the former state-owned exporter companies represented the EU standards,

Table 1: Activity-structure of the meat plants in Hungary in 1999

Number of the slaughterhouses		Plants which deal with both slaughtering and processing		Number of processing plants	
Total:	352	Total:	142	Total:	327
Of which		Of which			
Pig slaughtering	172	Pig slaughtering and processing	73		
Cattle slaughtering	15	Cattle slaughtering and processing	1		
Both cattle and pig slaughtering	165	Both cattle and pig slaughtering and processing	68		

Source: Humil Kft.

and the newcomer mostly small enterprises have been created to meet the local demands. Small slaughter houses face difficulties in meeting the increasingly strict hygiene requirements and environmental standards [4]. Therefore among the waste- and sewage-management in the small and medium-sized companies there were hardly any that met the relevant environmental requirements, or the conditions set out in the EU directives. Though the majority of the newly built, privately owned slaughterhouses represent sufficient technical and hygiene levels, it was also characteristic that the rented slaughterhouses or those owned by the municipalities could hardly meet even the basic conditions.

A separate category can be established for those slaughterhouses which were formed from the former emergency slaughterhouses. These suffer from great shortcomings concerning both their level of equipments and capacity [3].

The domestic slaughterhouse-structure showed and show a special picture, which is justified also by the high number of slaughterhouses. According to the registers, out of 821 meat industrial enterprises there were 494 slaughterhouses or enterprises with slaughterhouses in 1999 (Table 1). Organizations doing meat industrial activities include, in addition to the meat industrial companies, packaging units of the department stores and the mostly self-sufficient units of the army, the educational and social institutions [2].

According the data of the AKII (Agricultural Research and Information Institute) and the Humil Kft., in Hungary hogs were slaughtered in 478 slaughterhouses in 1999. The capacities of the plants allow totally 8,9 million hogs to be slaughtered in a one-shift system [2].

The classification of meat industrial companies was done according to their hygiene status. The investigations and the animal health authority have distinguished the following plants: for EU-export (EU or stricter requirements, e.g. USDA certified plants), “National list” for export (plants with not EU but with other export licences), and plants producing for domestic trade.

Later this changed and today there are 7 categories for the plants used by the Veterinary Service according to their hygiene status:

- Plants acknowledged by the EU
- Plants recommended for derogation
- Plants with large capacity, certified as adequate (they meet the domestic regulations)
- Plants with large capacity, certified as inadequate
- Plants with small capacity, certified as adequate
- Plants with small capacity, certified as partly adequate
- Plants with small capacity, certified as inadequate

The classification of the plants may change according to the requirements met.

Despite the factors mentioned above, the regulation on the food-hygiene conditions of the production and marketing of fresh meat determines the following categories [9]:

- Permitted facility: it meets the relevant regulations, and the Ministry of Agriculture and Rural Development has registered it with an veterinary EU number.
- Approved facility: such a facility, which sells only on the domestic market, meeting the relevant regulations, and the relevant county (capital) animal-health and food controlling station has registered it with a domestic approval number. Approved facilities could export to countries with non-EU requirements with a special permission until 30 November 2003.
- Derogational facility: such an approved facility, which can produce without any capacity limit until 31 December 2006 at the latest, and which can trade domestically, provided, it has a development schedule approved by the authority.

Only products originated from permitted facilities can be exported to countries applying the EU regulations. If products originated from permitted facilities were treated in approved plants, those can only be sold domestically. Products from derogational or approved facilities must not go to permitted facilities by any reason.

A slaughterhouse can be registered as an approved one, where not more than 20 per week and not more than 1000 per annum.

In 1999 12 hog-slaughterhouses met the EU requirements, whose capacities allowed more than 5 million hogs to be slaughtered per year (table 2). In total about 460 plants had cutting capacities, and some dozens of cutters in department stores did boning activities according to the daily trade.

Meat processing activity was done totally in 469 plants, out of which there are only 327 processing plants, while in 142 plants slaughters were also carried out. Large-scale plants give 56% of the total capacity. These are the most developed plants from both technological and hygiene point of view.

According to the data of the Ministry of Agriculture and Rural Development of the year 2001, only 600 organization did meat industrial activity. Out of the 600 (593) meat industrial enterprises 379 did slaughtering (redmeat slaughtering and cutting plants), and hogs were slaughtered in 366 slaughterhouses. The total capacity of the 366 slaughterhouses doing hog slaughters also was 2 118 791 animal units (one live hog over 100 kgs is 0,2 animal unit) in 2001. Three years later, 320 do slaughtering activity out of 600 (598) plants, and hogs are slaughtered in 307 slaughterhouses, whose total capacity is 1 844 419 animal units in 2004. According to the registration of the beginning of 2004, 92 redmeat plants operate acknowledged by the EU, out of which 31 do slaughtering activity and out of the latter 25 do hog slaughtering with a total capacity of 1 244 600 animal units. These 25 plants give 68% of the total capacity of all the hog slaughtering plants (307) (table 3).

In 2004, according to the data of the Ministry of Agriculture and Rural Development, only 145 plants have cutting capacity out of 600 redmeat plants. Almost all the large-scale plants have cutting capacity. In total meat processing is done in 376 plants. 278 plants are only processing plants, slaughter is also done in 98.

Because of the structure of meat industry before the change of regime (combinate-principle) the large-scale plants do cattle and hog slaughter and also meat processing. Small- and medium-sized plants usually do two types of activities: they either slaughter or process, or do cattle or hog slaughter. The smallest plants usually do only one activity.

The two databases cannot be totally compared with each other, but it can be stated that in 5 years the number of meat industrial companies and slaughterhouses has decreased, though the slaughter capacity did not decrease in the sufficient extent. It is proven by the fact that in 2004 the total capacity of the redmeat plants doing only hog slaughter was 987 941 animal units, which is equal to 4,9 million hogs with over 100 kgs live weight.

Due to the EU accession the domestic slaughterhouse structure has simplified, favourable processes have started, but we are still facing considerable surpluses in capacity, and we are lagging behind the developed pork-producer EU countries in several areas.

The comparison of the structures of meat industry in Hungary and in the EU

The meat industrial companies in the most competitive EU countries and in the most dynamically developing meat sectors (Denmark, Holland, France, Spain) can be divided into two clear groups.

Primary processing i.e. the slaughter, the cutting and the boning are done in the large-scale companies traditionally owned by agricultural producers. The low added value and meeting the strict food safety, hygiene, environmental, animal welfare standards have made this sector of meat industry highly concentrated. [7]

The further processing, producing meat products are done by meat processing plants formed from trade organizations. There is a wide range of such companies, starting from the small local processing companies or from companies producing special products, to the larger national companies focusing on the domestic market, and the few multinational companies focusing on only EU markets. Higher added value and meeting either the special or the local demand allow them to stay on the market, but of course only with meeting the increasingly strict requirements [7]. Based on all these it is (the distinguishing of primary and further processing)

Table 2: Number of the pig slaughterhouses and their capacity in Hungary in 1999

Category	Number of Slaughterhouses ~~db~~	Capacity, 1000 slaughters/year
For EU-export accepted	12	5293
“National list” for export	35	1136
Only for domestic trade	431	2450
Total	478	8879

Source: Humil Kft.

Table 3: The state of the Hungarian Meat Industry in 2004

Category*	Plants accepted by the EU	Plants recommended for derogation	Plants with large capacity, certified as adequate	Plants with large capacity, certified as inadequate	Plants with small capacity, certified as adequate	Plants with small capacity, certified as inadequate	Plants with small capacity, certified as partly adequate
number of plants							
1. Red meat plants, total	92	33	28	36	220	181	8
2. Slaughterhouses, plants, total	31	32	18	24	109	104	2
Of which							
2.1. Slaughter and cut	14	4	0	5	2	2	0
2.2. Slaughter and process	1	1	3	4	18	10	1
2.3. Slaughter, cut and process (full range)	10	13	6	6	14	11	0
2.4 Slaughter only	6	14	9	9	75	81	1
2.5. Only pig slaughterhouses, plants	16	21	9	14	73	64	2
3. The total number of the slaughterhouses, where pigs are being slaughtered	25	32	18	24	107	99	2
4. The number of the slaughterhoses, where only other species (cattle, sheep) are being slaughtered	6	0	0	0	2	5	0
Of the slaughterhouses, which slaughter pigs (line 3)							
3.1. Slaughter only	4	14	9	9	73	77	1
3.2. Slaughter and cut	10	4	0	5	2	1	0
3.3. Slaughter and process	1	1	3	4	18	10	1
3.4. Slaughter, cut and process	10	13	6	6	14	11	0
Animal unit/year							
5. Total capacity of the plants where pigs are being slaughtered (line 3)	1244600	206933	138479	95411	91609.7	65606	1780
6. Total capacity of the plants where only pigs are being slaughtered (line 2.5)	645950	125686	51178	71114	59968.7	32264	1780

Source: author's own calculations, based on the data of the Ministry of Agriculture and Rural Development (FVM adatok alapján saját számítás)
*categories used by the Veterinary Service

Table 4:Changes in the French pork production and consumption (Supply balance)

1000 t carcase weight	1992	2001	2002
Production	1.589	2.320	2.360
Import	513	492	474
Export	315	591	608
Consumption	2.057	2.222	2.224
Per capita consumption (kg)	35.9	36.5	36.3
Self sufficiency (%)	90.4	104.4	106.1

Source: SCEE-Agreste

obvious that in these countries the trade of carcasses can be found, which was not characteristic to Hungary so far because of the „combinate-principle" mentioned above.

In addition it is important to mention that these EU countries have developed market institutions, producers' market organizations (auctions, producers' groups) which provide appropriate position while bargaining for the producers allowing them to exercise their interests.

In the following part of my study, based on the data available, I examine the EU meat producer countries that have the most competitive meat industries and whose pork production has developed the most dynamically in the past years.

In France the pig sector has developed dynamically over the last 10 years from being a net importer of pork into a net exporter (table 4). Self- sufficiency in 2002 was around 106%. The import of pigmeat still stands at a relatively high level of 500,000 t per year, of which 300,000 t arrives in the country as carcass cuts. The most important were the hams and bellies. Around 30% of the imports came out of Spain , 16% from Netherlands, 13% Germany, 12% from both Denmark and Belgium, and 11% from Italy. Imports include live pigs (138,000 head in 2002), whole carcasses, carcass cuts and processed products. In the last ten years there was a change in the structure of the import. The import of carcass cuts has decreased, while the import of processed products has grown. Overall per capita consumption has not changed over recent years and is 36 kg.

France has around 300 EEG-registered slaughterhouses. In 2002, the 11 largest ones had together 70% share of the total 25.7 million pigs slaughtered in France. There are 8 slaughterhouses with a capacity of more than 1 million pigs and they together take a 61% share of the market: Socopa (3.4 million), Cooperl (3.2 million), Groupe ABC (2.0 million) and Olympig (2.1 million) are the biggest. Beside the cooperatives and private companies, there are also slaughter companies where the producers groups, called 'groupements' own shares. Cooperl is 100% owned by farmers and Socopa, partially [6].

The French slaughter sector is not really organised for further processing. They do deal in large volumes, however, putting them in a strong position when dealing with their most important customer, the meat processing industry. Around 80% of the carcasses leave the plants as carcass cuts [6]. As I mentioned before, the producer groups play an important role in the meat industry of France. The first group was introduced in 1968, with the support of the French government, by slaughterhouses, feed manufacturers and breeding groups. Currently the producers are the owners of the groupements where the basic aim is to realise as high a market price as possible. As compared to the slaughterhouses the groupements are really strong. There are three different types of the producer groups [6]:

• Those that gather slaughter pigs together to supply the slaughterhouses. Its members are also offered advice in the areas of feeding, breeding, veterinary services, technical and economic management.

• Those groupements that also have shares in slaughterhouses.

• And finally those that control the whole supply chain: production, feed and slaughter.

The number of groupements has decreased over the last 30 years. In 1972 there were 204 producing 31% of the slaughter pigs in France. In 1980, 204 with a share of 59%, in 1990, 145 and 81% and in 2001 there were 89 representing 91% of the production [6].

In the Netherlands increasingly strong concentration characterises hog slaughter. In 1990 44 plants operated where the number of slaughters exceeded 25,000 per year. By 2000 only 26 such slaughterhouses have remained. Out of it, in 23 slaughterhouses the yearly slaughters exceed 100,000. In 2000 18.8 million hogs were slaughtered. 90% was done in such slaughterhouses, which are large-scale according to Hungarian sizes (over 100,000 slaughters per year) [7]. Like in France and other Western-European countries, the first stage of processing includes the cutting, the boning. The companies doing further processing usually are formed from trading organizations. The quantity of meat processed by each plant is increasing year by year.

In Denmark, due to the concentration, 96% of the slaughtered hogs (20.9 million) was slaughtered by three cooperatives (Danish Crown, Steff-Houlberg, TiCan) in 2000. In these cooperatives the characteristic capacity-size is between 0.5-1.5 million slaughters on each slaughterhouses. While in the largest plant of Danish Crown some 2 million hogs are slaughtered per year (in 2-shift working hours). The rest 800,000 slaughter animals were slaughtered in other privately-owned slaughterhouses and butcher's. The number of slaughters exceeded 10,000 in 11 slaughterhouses [7]. It is characteristic that the primary processing co-operatives partly own further processing plants, though among the partners there are also trade organizations. In the past years the further processing plants owned by the co-operatives strived to become separate to improve competitiveness. They try to separate these meat processing plants –that are the largest in the country – from the slaughterhouses both from physical and economic point of view. In the future production will not be carried out in the co-operatives' framework but in economic associations set up with external investors for this special aim [7].

At the large slaughterhouses of the European Union they strive to reach over 90% capacity utilization in the case of the existing slaughter lines.

Overall we can state that in the 90s the capacities of the domestic large-scale meat industrial companies did not decrease according to the decline on the markets. Beside this, hundreds of new meat industrial companies – mostly small-sized - started to operate on the field of slaughtering and processing, so the processing capacities did not fall in total. After the millenium, in relation with our EU accession, though some concentration and specialization have begun, but still not in the adequate extent, compared to the EU member states with competitive meat industries. The long lasting capacity surpluses have unfavourable effects also on the quality of the products, since striving to use the capacities may encourage the quantity factors rather than those of the quality. In the past few years we can observe a continuous improvement in meeting the hygiene, food-safety, environmental and animal protection requirements. It is partly due to the popularity of SAPARD support, and it is also because several plants were closed which did not meet even the basic conditions, or where the structure of the plant did not allow to meet those requirements.

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