

# THE RESULTS OF THE EU FOOD LAW REQUIREMENTS IN THE OPINION OF DIARY INDUSTRY COMPANIES-INDICATIONS FOR ENTERPRISES FROM THE EU CANDIDATE COUNTRIES

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**Abstract:** Nowadays quality is perceived as a main factor, which guarantees companies to remain on the agricultural and food products market. Achieving the demanded quality is today not possible without implementation of quality management system in the company, amongst which the key role in local companies play the quality assurance and HACCP systems. Amongst them quality assurance system and the HACCP system have the main significance in domestic companies. The paper presents the results of research conducted among dairy industry enterprises in Wielkopolska. The outcomes of the QMS and HACCP system implementation in those enterprises were evaluated.

**Keywords:** QMS, HACCP systems, dairy manufacturers

## INTRODUCTION

After joining the European Union Poland has become a part of the uniform European market, large economic space, which is a place of intensive competition for gaining a consumer for whom products quality plays a significant role. Adjustment processes of the Polish dairy industry have been lasting for many years. They frame concentration, technology modernization, adjustment of hygienic-veterinary standards and processes concerning the EU requirements in the area of animal welfare and environment protection. According to General Veterinary Inspector in September 2006 about 60-70 thousands households still did not accomplish the EU requirements in the referring to detail veterinary conditions.

The largest milk producers are the EU countries (over 140 m. tones), India (almost 88 m. tones) and the United States. The EU has the 25% share in global milk market. Poland produces 9% of the European milk (Krijger, 2005). It is estimated that milk production in Poland slightly grew in 2007 (by 0.7% in comparison to 2006) and amounted to 12 m. tones (Seremak-Bulge, 2008).

## METHODS

Questionnaire investigation concerning quality management system according to PN-EN ISO 9001:2001 standard and HACCP system was conducted amongst dairy manufacturers (EKD 15.5), whose production plants were located in Wielkopolska region and who were employing over 9 employees. The data obtained from GUS indicated that in the year 2006 there were 130 such companies. The questionnaires were sent to all of them. 20 questionnaires were sent back because of invalid head office address, with the note "address unknown". Respondents sent back 40 filled questionnaires, which gives representative sample of 36.36 % of all dairy companies in the Wielkopolska region.

## RESULTS

### 1. Obligatory implementation of HACCP system

The HACCP system (**H**azard **A**nalysis and **C**ritical **C**ontrol **P**oint) is a method used to assure food safety. The aim of this system is to prevent food from health hazards before they appear. This system puts pressure on monitoring of production process together with its surrounding environment, that is infrastructure, suppliers etc. Generally there are many requirements which must be fulfilled and actions that must be carried out at all levels of production and distribution of food and forage, in order to assure food safety (Figure 1).

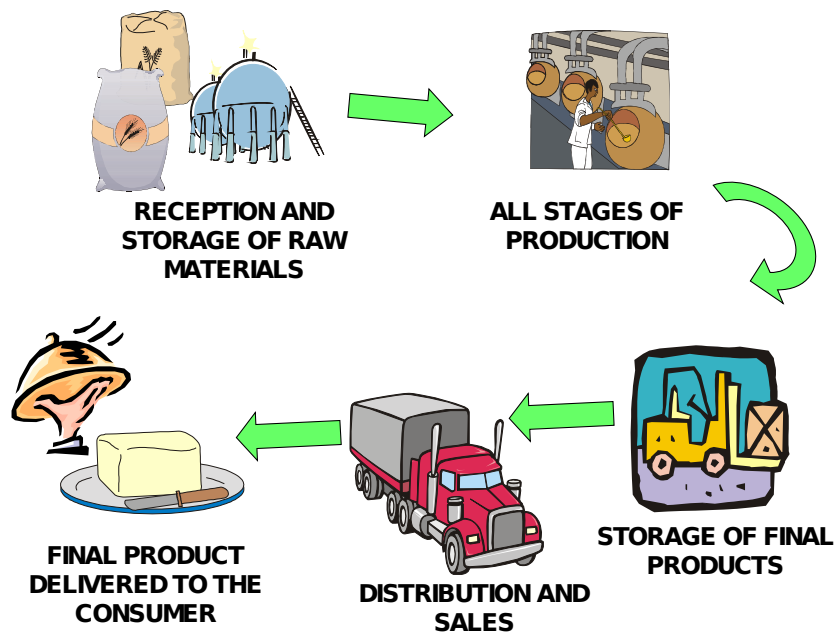


Figure 1. The scope of the HACCP system

Source: author's own research

Food safety is the notion that has two aspects: is a feature of food itself – means lack of health hazards; is related with the process of production/distribution of food – certain stages of this process and actions that must be carried out by the producer in order do assure safety of production/distribution and through this achieving the safety of consumers.

Safety should be a matter of concern for all companies taking part in production and distribution of food and also for legislative institutions and bodies.

Technological and sanitary state of dairy industry in Poland is satisfactory. Most companies have permission to sale products to the EU. In July 2003, according to data of Main Veterinary Inspection only 48 production plants fulfilled the requirements of EU. Assembly lines, energetic installations and environment protection installations were systematically modernized. These investments were supported by the EU resources (SAPARD and SPO). Within framework of SAPARD there were 324 contracts signed for subsidy of over 410 million PLN to investments of overall value of 990 m. PLN (Pietrzak, Szajner, 2006). Over 80% investments were related to adjusting to veterinary standards. Now the number of production plants which fulfil the sanitary and veterinary requirements of EU amounts to 245 (Pietrzak, Szajner, 2006).

The dairy industry companies in the scope of hygiene are obliged to comply with the Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs and also to the requirements of Annex II and Annex III Section 9 of Regulation (EC) No 853/2004 of the European Parliament and of the Council stating detailed regulations for hygiene in relation to food of animal origin. Requirements for microbiological safety are in Commission Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs from 15 November 2005.

Because of the obligatory use of the HACCP system 87.5 % of questioned companies (35 companies) confirmed having it implemented. Remaining 5 companies declared being in the process of implementation. Amongst the questioned companies 60% declared that the implemented HACCP system is not integrated with other system, 22.5% of respondents indicated integration with QMS, and 17.5% with OHS system.

Implementation of the HACCP system, like implementation of the QMS according to the ISO 9001, is related with the need for engaging substantial financial resources of the company. 62.5% of questioned companies used their own resources, but as external resources some of the companies indicated:

- subsidies form EU – 27.5%,
- bank loans – 17.5%,
- government subsidies programs – 7.5%.

After the system implementation the company still has to bear costs, this time related to the functioning of the system. These are mainly the costs of improving the quality of products, repairs, modernization of infrastructure, audits, training, materials, costs related with remuneration for system coordinator and consultants.

## **2. The effects of the HACCP system implementation in assessment of respondents**

Because of the obligatory use of the HACCP system the questionnaire did not contain question about prerequisites of its implementation. The respondents stated, that the positive effects of the HACCP system implementation were mostly: increase in self-control of employees (63% of indications), increase in quality of products and improvement in documentation control (51% of indications) (Figure 2). In case of negative effects of the HACCP system implementation the companies emphasized two aspects: increase of bureaucracy (68%), increase of unit cost (42%).

On the basis of conducted research it can be noticed that in comparison to the QMS the respondents outlined more benefits resulting from implementation of HACCP system. Within the framework of positive effects of the implementation of the QMS according to the ISO 9001 in assessment of dairy companies gives percentage advantage comparing to the HACCP system in only 5 aspects:

- improvement in efficiency of actions,
- improvement in internal communication,
- increase in the competitiveness,
- obtaining new market possibilities and maintenance of market share,
- increase of efficiency and transparency of management system.

The remaining indications within the positive effects, which result from implementation of the HACCP system, give great percentage advantage in comparison to the QMS (Figure 2).

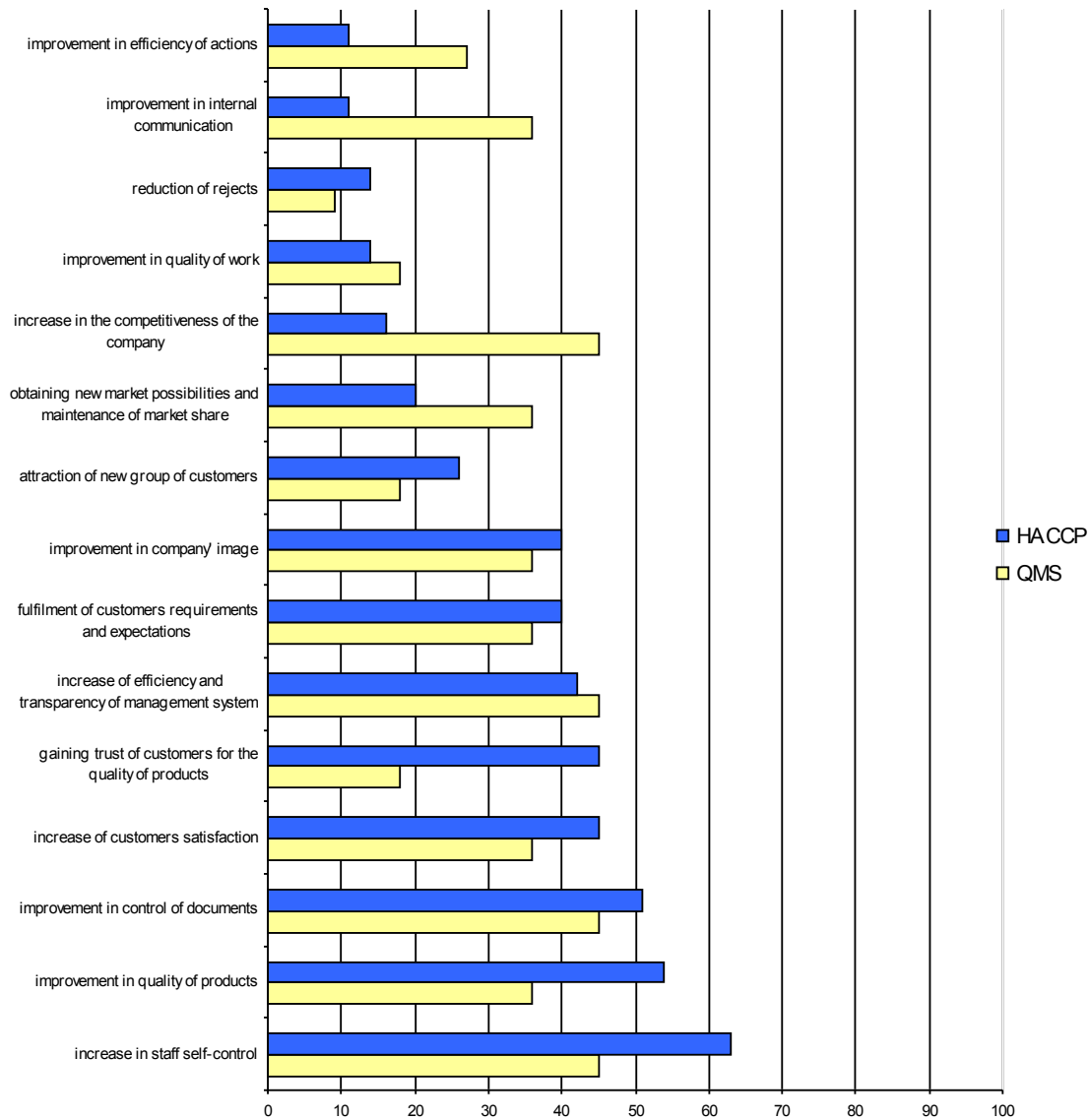


Figure 2. Positive effects of implementation of the QMS and HACCP system in assessment of companies [in %]

Source: author's own research

### 3. The QMS and HACCP system implementation difficulties

The process of implementation of management systems in companies encounters often difficulties resulting from the system guidelines or from the production personnel. In case of implementation of the HACCP system there can be a great difficulty to adjust the infrastructure to the GMP/GHP requirements. Assuring adequate conditions in that field guarantees efficiency of the system. Bureaucracy and difficulties to change mentality of staff (60%) were the most difficult for questioned companies during implementation of the QMS. In case of the HACCP system besides the above difficulties (bureaucracy – 50% of indications, mentality of staff – 55% of indications) large percentage of indications concerned difficulties with high adaptation costs (53%). The data analysis shows that the process of implementation of the HACCP system was the longest – 29% of questioned companies indicated that it took from 9 to 12 months. The same percentage declared it took more than 12 months. In case of implementing the QMS – the process of implementation lasted from 6 to 9 months (45% of indications).

Staff training sessions play a significant role during implementation of the QMS or HACCP system as well as during its functioning. The trainings for staff are conducted to remind them about the rules which are obligatory in the company, for example the GMP/GHP, procedures and how they commit to the improvement of the QMS / HACCP system. It is very important to set the right frequency of training sessions. In management systems, especially in the HACCP, the most difficult thing is to change the mentality of staff (which is confirmed by the above research results), their habits and their conduct not always consistent with the requirements of the GMP/GHP. Amongst the questioned companies as many as 57% of respondents declared carrying out training session few times a year, but training for staff conducted once in a year was indicated by 91% of questioned companies. In most of cases the training sessions are conducted by the system coordinator (60%). The companies usually send the system coordinator for external trainings, where concrete knowledge can be gained and then passed on to the rest of employees. However it cannot be forgotten that it is easier for external trainers, such as consultancy and certification bodies, to pass information to the production personnel and than it is easier to enforce compliance with certain procedures.

## **DISCUSSION**

Contemporary companies function in more and more complex and dynamic surrounding environment. The rate of changes in technology of production is accelerating, new international markets are opening and customers' requirements (mostly qualitative) are growing. It puts the management of many polish companies in new situation, in which they must verify so far applied methods of management. The quality of products, which is a necessary condition for efficient competition on the market, should be the priority of undertaken actions. Therefore the QMS and HACCP system are necessary to achieve the demanded level of quality and food safety.

Most of the questioned organizations indicated, that the main reason for the implementation of the QMS was improvement in functioning of the company, fulfilment of requirements and expectations of the customers, improvement in quality of products and increase in competitiveness of the company. Partially these prerequisites are reflected in the results of implementation, for example the competitiveness of the companies increased, the efficiency and transparency of management system increased and also the documentation control got better.

The process of implementation of management systems in companies encounters often difficulties resulting from the system guidelines or from the production personnel. In case of implementation of the HACCP system there can be a great difficulty to adjust the infrastructure to the GMP/GHP requirements. Assuring adequate conditions in that field guarantees efficiency of the system. Bureaucracy and difficulties to change mentality of staff were the most difficult for questioned companies during implementation of the QMS. In case of the HACCP system besides the above difficulties large percentage of indications concerned difficulties with high adaptation costs. The data analysis shows that the process of implementation of the HACCP system was the longest – 29% of questioned companies indicated that it took 9 to 12 months. The same percentage declared it took more then 12 months. In case of implementing the QMS – the process of implementation lasted from 6 to 9 months (45% indications).

## **CONCLUSIONS**

The conducted research showed that polish diary industry companies have in satisfactory manner adjusted to the obligation of implementation of the HACCP system and moderate interest in implementing quality management system, which use is not obligatory. Despite the positive effects of implementation of the QMS, the costs of implementation and certification are so high, that they become a insurmountable barrier.

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