

ЙОАННА ДИМИТРАКАКИ

ЮГОЗАПАДЕН УНИВЕРСИТЕТ „НЕОФИТ РИЛСКИ“, гр. БЛАГОЕВГРАД

**КОНКУРЕНТОСПОСОБНОСТ ПО ОТНОШЕНИЕ НА КАЧЕСТВОТО НА
МЛЕКОПРЕРАБОТВАЩИТЕ ПРЕДПРИЯТИЯ**

QUALITY COMPETITIVENESS OF THE DAIRY ENTERPRISES

IOANNA DIMITRAKAKI

SOUTH-WEST UNIVERSITY “NEOFIT RILSKI”, BLAGOEVGRAD

Abstract. The attention paid by the modern dairy enterprise on the competitiveness is growing all the time. As a result from the aggravated competitiveness and the expansion of production and markets the company is striving all the time at the enhancement of competitiveness of the products it offers. Nowadays consumers are well informed and their requirements to quality of the dairy enterprise's product are getting higher and higher. This makes it necessary to devote attention to the management of competitiveness with regard of quality and to look for methods and approaches to its provision. **The major objective of this paper** is to clarify the essence of product quality – one of the substantial characteristics of its competitiveness, as well as to review the basic factors determining the quality of milk. Efficient ways for improvement of the quality of the dairy enterprise's product are proposed, too.

Key words: Quality, Competitiveness, Dairy Enterprise

INTRODUCTION

To enter new markets Greek dairy products enterprises must offer milk with high quality, meeting the European and world standards. Today, in the conditions of globalization of economic processes, no major breakthrough on the international market is possible without an ISO 9000 certificate or another well-known and acceptable system of quality management and control. According to a survey by American scientists¹, almost 80% of the managers of American companies believe that in the new millennium quality will be a fundamental source of competitive advantages. The competitiveness finds expression in competitive advantages². According to her competitive advantage in terms of product distinguishing qualities that constitute value for the buyer, can be achieved by the enterprises by diversifying the range of the products produced, better positioning, higher quality and acceleration of attendance and appropriate advertising³.

The quality of the product is one of the essential properties of its competitiveness. Surveys held by the American Institute for strategic planning show that the return of an investment, the market share and the profit margins, expressed as percentages of the sales revenue directly depend on the quality.⁴

¹ Garcia, E., Quality Control Training, Tokyo, 1996, p.58

² Kyurova, V., Seasonality and competitiveness in the hotel business, dissertation, Blagoevgrad, 2011, p. 60

³ Kyurova, V., Seasonality and competitiveness in the hotel business, dissertation, Blagoevgrad, 2011, p. 62

⁴ Ribov, M., Management of Tourism Competitiveness, Publ. Trakia-M, S., 2003, c.237

DISCUSSIONS

The competitiveness of a product depends on the extent to which it satisfies the consumers' needs and on the efficiency of the processes that produce and maintain it.⁵ Moreover another common quality control system in the Greek market is the Hazard Analysis and Critical Control Points (HACCP) - a system for food quality control⁶. Generally, the HACCP should be applied by any food related businesses that produce, package, distribute, store, supply, deliver or provide food on the market.

Furthermore, HACCP determines and controls the health risks adversely affecting food safety. These risks for milk and dairy products are mainly the following:⁷

1. Microbiological (pathogens, bacteria, viruses, parasites).
2. Chemical (residues of agricultural / veterinary drugs, toxins, toxic metals etc.).
3. Physical (foreign matters into the food (milk and milk products): metals, stones, wood, plastic, bugs, etc.).

Finally, it is obvious that the reasons for the existence and application of such a system are numerous and have to do not only with the finished product and the consumer, but also with the staff employed in the collection, transport and preparation. Moreover, it should be mentioned that in order for HACCP to function effectively and enjoy the support of management, it must be designed, operated and maintained within the framework of a structured management system and incorporated into all the activities of the administration.

Based on the mentioned above, it should be said that HACCP is very closely related to the meaning of TQM. As defined by the International Organization for Standardization (ISO), TQM is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society⁸.

It could be said that the aspect of Total Quality Management, is considered to be a set of various management practices within a business or organization which is applied in order to make sure that a business subjected to it could clearly meet its customers' needs. One of the main advantages that could be seen in a particular system is the focus which is placed on measurement process and controls the means of continuous improvement. Total quality management is also considered to be the outgrowth of a long line of developments seeking to evaluate and improve the quality of

⁵ Filipova, M., Managing of the Competitiveness in Brewery industry, In 10-th National Symposium "Quality, Competitiveness, Sustainable Development", UNWE Press, Sofia, 2005, p. 109

⁶ Wallace, C. & Williams, T. (2001), Pre – requisites, A help or a hindrance to HACCP? Food controls 12, p. 235 – 240.

⁷ Schothorst, M. & Kleiss, T. (1994), Haccp in the dairy industry, food control 5 (3), 162 – 166.

⁸ Chow-Chua, C., Goh, M. and Wan, T.B. (2003), "Does ISO 9000 certification improve business performance?", International Journal of Quality & Reliability Management, Vol. 20 No. 8, pp. 936-953.

manufactured goods. The idea behind TQM is that much can be achieved by innovation, but competitive advantage is largely affected by continuous process improvement.

Characteristic example of adoption of the total quality management in dairy businesses is considered to be the production of various milk and similar products that applies that system constantly. Such producers have found that this system has largely contributed to the right application of inside operations and administrative facts, which have also brought to the expansion of dairy and milk products. As a result, an experience in total quality management process can be gained and could lead to improvement of employees' skills inside those businesses and their working qualifications.

What has been found is that the main purpose of total quality management system is to assist a business to achieve the best value of its products and services to its clients, succeeding by this way to have an economic stability and profitability. Managers inside the company should be aware of their commitment for their main objectives and instruct and train their employees in such a way that will be guided to the successful application of this mission.⁹

But in order to achieve such an aspect, the managers inside the company should ensure that the skills and qualifications of their employees inside the business and the provision of goods or services to customers are able to meet their needs and requirements. All the long established relationships with employees, suppliers and customers should aim at providing quality first and second, economic stability and profits.

Therefore, a total quality management system can change the overall way that managers inside a company could think about their business and work in such a way that could develop and improve their employees' qualifications and relationships with customers and suppliers. According to Coate, continuous process improvement teams are at the "heart" of total quality management and are based on the belief that better solutions emerge when everyone is given a chance to work on process problems. Just as importantly, solutions are accepted and implemented more quickly and are longer lasting because the people affected have helped develop them".¹⁰

In order to provide the meaning of Continuous Process Improvement Teams, it could be said that those consist of people who try to cooperate efficiently together so as to achieve their purposes and review this process during work. Main objective of those people is to examine all that process of work and improve it by utilizing the resources, which are already controlled by employees inside a business. Another main purpose of those employees inside a workplace is to make interviews with customers to identify the requirements which are not met and detect the various problems.

What total quality management tends to do is to set the standards within a dairy business for the detailed services offered to customers and this technique is to be used as a useful tool which will be valuable for the improvement of those services. Employees

⁹ Chow-Chua, C., Goh, M. and Wan, T.B. (2003), "Does ISO 9000 certification improve business performance?", *International Journal of Quality & Reliability Management*, Vol. 20 No. 8, pp. 936-953.

¹⁰ Chowdhary, N. and Prakash, M. (2007), "Prioritizing service quality dimensions", *Managing Service Quality*, Vol. 17 No. 5, pp. 493-509.

and Managers need to collect those data and measure the criteria that fit to customers' needs. In conclusion, total quality management helps employers run their business much better, keep their clients loyal to them as business is able to satisfy their needs and definitely train its employees in a way enabling them provide a reliable and trustworthy service to customers.¹¹

Most customers of nowadays are considered to be extremely demanding and the number of businesses that can be competitive in such sector is not big. If a company tries to increase the circle of its customers day by day, it is logical not to be able to satisfy them 100%. What total quality management system also does is to set the appropriate basis for customers' satisfaction by a particular business so as to make them loyal by increasing its clientele and profitability.

Therefore, quality is defined as fitness for use, performance, safety and dependability of a product to satisfy human needs.¹² The term "quality" is often confused with the terms "levels of service" and "standards". People usually equate "quality" to more services or deluxe service. In fact, quality means conformance to a pre-determined standard based on price and value for intended markets.¹³

For service-driven industries, such as tourism and hospitality, service quality is regarded as a key factor affecting the performance of firms. Service quality is defined as "service correspondence to the customers' expectations and satisfaction of their needs and requirements."¹⁴ Service quality has repeatedly been shown to create competitive advantage, rewarding quality providers with the repeat patronage of loyal customers and improved word-of-mouth advertising from satisfied consumers.¹⁵

Seaton and Bennett stressed on the importance of customer service for service industries, asserting that by its very nature the tourism product is service driven, making the quality of the product intrinsically linked to the level of service provided". Finally, the service quality is a significant factor in distinguishing service products as well as creating a competitive advantage in the tourism industry that receives growing consideration.¹⁶

The quality of a product is assumed as a set of properties, which determine its ability (suitability) to satisfy certain or presumed needs.¹⁷ The quality of the dairy products must fit in pre- set parameters. It must meet certain requirements that are routinely reviewed as they are determined by market needs which change over time. The term "requirements" is referred to both commercial and contractual requirements and internal

¹¹ Kang, G.D. and James, J. (2004), "Service quality dimensions: an examination of Gronroos's service quality model", *Managing Service Quality*, Vol. 14 No. 4, pp. 266-77.

¹² Chowdhary, N. and Prakash, M. (2007), "Prioritizing service quality dimensions", *Managing Service Quality*, Vol. 17 No. 5, pp. 493-509.

¹³ Kang, G.D. and James, J. (2004), "Service quality dimensions: an examination of Gronroos's service quality model", *Managing Service Quality*, Vol. 14 No. 4, pp. 266-277.

¹⁴ Kang, G.D. and James, J. (2004), "Service quality dimensions: an examination of Gronroos's service quality model", *Managing Service Quality*, Vol. 14 No. 4, pp. 266-277.

¹⁵ Chowdhary, N. and Prakash, M. (2007), "Prioritizing service quality dimensions", *Managing Service Quality*, Vol. 17 No. 5, pp. 493-509.

¹⁶ Chowdhary, N. and Prakash, M. (2007), "Prioritizing service quality dimensions", *Managing Service Quality*, Vol. 17 No. 5, pp. 493-509.

¹⁷ Ribov, M., *Management of Tourism Competitiveness*, Publ. Trakia-M, S., 2003, , c.247

requirements of the enterprise.¹⁸ They fully reflect the identified and the presumed needs of the customer.

The main factors that determine the quality of the milk are:

- The production process that a company follows;
- The technical level of the equipment;
- Chemical and microbiological control of the production process;
- Availability of qualified personnel;
- Organization of the production process and labor discipline.

The main raw materials and energy used for bottling by the dairy are as follows:

- Basic materials – lids, labels, crates, kegs, bottles;
- Glue for labels;
- Energy – electricity, water, steam (oil).

To produce milk with good and constant quality all dairy products companies have to follow the Guidelines of good hygiene practices and hazard analysis and critical points control in the milk industry.¹⁹ According to the European Directive 93/94 EEC of 14.06.1993 on the food hygiene all food producers and traders to assure quality must implement a documentation system based on the Hazard Analysis and Critical Control Points system for food safety. The Hazard Analysis and Critical Control Points system is internationally recognized and used for food products as a system for risk analysis and errors avoidance. It serves to recognize the potential dangers and to reduce them to the minimum at each stage of the production process, storage and transportation of the foods to the consumers. Many of the requirements of the hygiene regulations for milk production have long been an everyday practice in the dairies.

Milk can be risky due to physical and chemical reactions that may occur during production processes, washing, disinfection and filling up in different packages. With the help of the hazard analysis and risk assessment can be identified various dangerous points and necessary measures to be taken to avoid the danger.

A good hygiene practice is a documented system of requirements, rules and criteria for the production, processing, packaging and storage of food in order to minimize the risk of their contamination.²⁰ In order to increase competitiveness through quality for the dairy products companies is crucial to use and process quality raw materials and intermediate products. Besides being of high quality they also have to be stored and transported in certain conditions excluding unexpected contamination. The dairy products are stored in clean, dry and pre-treated against pests silos and bunkers. In them a low temperature and low humidity are maintained. The warehouses for additives, auxiliary materials, empty packaging and finished products are kept clean at all times.

¹⁸ Filipova, M., Increase the competitiveness of the breweries companies., Publ. „Korect“, S., 2004, p.93

¹⁹ Recommendations for Good Hygiene Practices and Hazard Analysis and Critical Control Points in the Food Industry, S., 2002

²⁰ Recommendations for Good Hygiene Practices and Hazard Analysis and Critical Control Points in the Food Industry, S., 2002, p.9

Both the technology and the quality and safety of the dairy products produced are largely dependent on the requirements towards the main raw materials and auxiliary materials.

Essential for the production of quality milk is the technological equipment. It must have the technical and operational capabilities to ensure the proper conduct of technological processes in the malt and milk production. Moreover, the technological equipment must be easily washed and disinfected and be made of materials authorized for use in the food industry.

In order to increase competitiveness based on the quality of the product it is necessary for the dairy products companies to manufacture in accordance with written technical instructions in compliance with the European Legislation in dairy products production and the requirements of the manufacturing companies. The milk produced must meet the technical specifications.

The quality of the dairy products is also depends on the transportation of raw materials, auxiliary materials and finished products. It is performed with specialized and designed for these purpose vehicles. Transportation of milk is done with special milk tanker trucks. Vehicles must be kept clean, disinfected and in good condition. All packages – bottles and cans - must be suitable for milk storage. This is certified by a relevant declaration by the producer.

The quality of the milk depends also on the cleaning, disinfection and pest control, which must be carried out with substances approved for use in the dairy products industry. With their use organic and inorganic pollutants are removed and the necessary microbial environment is provided. Their use is carried out in accordance with the instructions of the manufacturers and the results of the microbiological testing.

Each dairy products company must determine requirements for health, clothing and personal conduct of employees in the production plants. Introduction and wearing of protective clothing is a prerequisite.

Each dairy products company must train all workers who directly or indirectly participate in production, collection, bottling and transport to know how to maintain cleanliness, hygiene and comply with the established requirements. They need to know at what stage of the process and via which actions threats for consumer health may appear and through which measures this risk can be excluded. All the workers in the dairy products companies have to be properly trained according to the Hazard Analysis and Critical Control Points system in order to understand the reasons that cause hazards for the malt and milk and take the necessary measures to prevent them.

All Greek dairy products companies use specific systems for quality control and management. ISO 9000 certification has already been implemented by the majority of the companies. The main feature of the standards of ISO 9000 series is that in the “producer”- “customer” relationships a third party is included – the certifying organization. Practically the customer must trust the certifying organization. After it audits or reviews the documentation and functioning of the system of quality assurance of a given

enterprise is done, it determines whether it meets the requirements of the relevant standard of product quality.

Quality improvement of the product has a short and a long term effects. In both cases the improvement of quality leads to increase of the product competitiveness and customer satisfaction.²¹ The short-term effect of improving the quality of the milk is the possibility the dairy products company to raise (within price regulation) the price of the milk, without reduction of its sales, which affects the financial performance of the enterprise.²² In the long term improvement of the quality of the milk allows holding high prices for a prolonged period of time without a risk of price wars and loss of market share. As a result customers become loyal to the brand and the image if the brand is strengthened. This is reflected on the sales and particularly in repeated and more frequent sales, new customers and higher demand for other products of the company. Thus the market share and the revenue are increased.

The severity of the problem of quality forced the dairy products enterprises to seek more effective forms of its improvement. For the quality to be used effectively in the competitive struggle it is necessary:

- To reach a certain customer and taste qualities of the marketed dairy products assortment.
- To develop new dairy products assortments aiming to satisfy the preferences and expectations of the customers in terms of taste, bottle type, label, portions, etc.
- To create good brand image by constant high quality of the produced dairy products.
- To apply quality guarantee in order to protect consumer interests by complying with the Manual of good hygiene and the Hazard Analysis and Critical Control Points system in the dairy products industry, and implementation of the international quality standards of ISO 9000 series.
- To advertise in a proper way the quality of the dairy products adhering to the communication and marketing standards and to maintain in the house regulation in the dairy products companies.

CONCLUSION

Today no one doubts the priority of the quality for enhancing the competitiveness. Quality is the priority task for the management of the dairy products companies in Greece. Besides the quality of the produced dairy products the way it influences the customers' perception has to be taken in mind. The results of the author's research showed that many consumers care more about the brand image and the design, the label and the bottle rather than its content. This proves the fact that the perception is very important for the customers. This means that the taste is defined both in the mouth, and in the mind. Thus advertising can be used by dairy products companies as one of the main tools for creating competitive advantages.

²¹ Ribov, M., Competition and Competitiveness of the Tourism Product, Univ. Publ. "Stopanstvo", S., 1997, c.247

²² Filipova, M., Increase the competitiveness of the breweries companies., Publ. „Korect“, S., 2004, p.98

High quality is an aim of the competition and at the same time - a means for achieving it. Its competitors gradually remove a dairy products company, which does not take enough care to improve the quality of the produced dairy products, from the market. Nowadays the definite tendency is that both on the international and on the domestic markets success will have those companies and enterprises that manage to achieve higher quality.

BIBLIOGRAPHY

- Chow-Chua, C., Goh, M. and Wan, T.B. (2003), "Does ISO 9000 certification improve business performance?", *International Journal of Quality & Reliability Management*, Vol. 20 No. 8
- Chowdhary, N. and Prakash, M. (2007), "Prioritizing service quality dimensions", *Managing Service Quality*, Vol. 17 No. 5
- Filipova, M., Increase the competitiveness of the breweries companies,, Publ. „Korect“, S., 2004
- Filipova, M., Managing of the Competitiveness in Brewery industry, In 10-th National Symposium "Quality, Competitiveness, Sustainable Development", UNWE Press, Sofia, 2005, p. 109
- Garcia, E., *Quality Control Training*, Tokyo, 1996
- Kang, G.D. and James, J. (2004), "Service quality dimensions: an examination of Gronroos's service quality model", *Managing Service Quality*, Vol. 14 No. 4
- Kyurova, V., *Seasonality and competitiveness in the hotel business*, dissertation, Blagoevgrad, 2011
- Schothorst, M. & Kleiss, T. (1994), *Haccp in the dairy industry*, food control 5 (3)
- Wallance, C. & Williams, T. (2001), *Pre – requisites, A help or a hindrance to HACCP? Food controls* 12
- Recommendations for Good Hygiene Practices and Hazard Analysis and Critical Control Points in the Food Industry*, S., 2002
- Ribov, M., *Management of Tourism Competitiveness*, Publ. Trakia-M, S., 2003
- Ribov, M., *Competition and Competitiveness of the Tourism Product*, Univ. Publ. "Stopanstvo", S., 1997