

Implementation of ISO 22000 - a tool to increase business efficiency and customer satisfaction. A Case Study: SC Prodlacta Brasov

Nicoleta Andreea NEACŞU¹

***Abstract:** Quality is the extent to which the product meets the need that led to its appearance. If a product meets expectations, the quality has been reached. Quality management is an organizational strategy based on the idea that higher performance is achieved only by involving the perseverance of the entire organization in continuous improvement processes. One of the quality strategies that can be used to improve the activity is the certification that involves the implementation of international standards on quality management at the organization level.*

***Key-words:** customer, quality, quality management, certification*

1. Introduction

Clients want to have confidence in the company's ability to provide the required quality and to maintain this quality. To earn this trust, the company must be able to demonstrate that it has implemented an effective quality management system. Besides these issues, the company must take into account the demands of society, materialized in regulations and other restrictions aimed at protecting individual life and health and environmental protection (Madar and Neacşu 2014, 34). Quality management, according to ISO 9000: 2000, coordinates activities to direct and control an organization with regard to quality. According to JM Juran quality management comprises three main management processes: planning, quality control and quality improvement. (Juran 2000, 53). In essence, TQM is a philosophy of business management dealing with getting continuous improvement of customer satisfaction through quality management products and services, led in the entire company. TQM is a new approach to corporate management by applying total quality ideas across the organization. (Madar 2015, 126).

¹ Transilvania University of Braşov, andreea.neacsu@unitbv.ro

The objective of this paper is to highlight the role of quality management in improving the work of an organization and how it is applied to the certification of its strategy.

2. Presentation of Prodlacta Company

In 1990, ICIL Brasov was organized as a joint stock company registered in the commercial register under the name of PRODLACTA SA. The privatization process was completed in April 1997, PRODLACTA SA becoming a privately owned company. In the period 2007-2009 PRODLACTA S.A. has implemented a modernization program for the fresh dairy products factory located in Brasov, using SAPARD funds. Following this program, the factory has obtained veterinary health authorization for intra-Community export activities, all the equipment and machinery were properly upgraded according to EU regulations.

In 2012, following the insolvency proceedings, the company was taken over by the JLC group of companies. JLC is a transnational group, consisting of production enterprises, wholesale and retail trade, and companies providing services. The businesses that constitute the group are from Moldavia, Ukraine, Kazakhstan, Germany and Romania. The main activities of the group are: dairy products manufacturing, construction, transportation, agriculture, wholesale and retail trade. In February 2013, the company was reorganized and now it operates with a new management team, whose main objective is the reintroduction of its products on the national market and transformation of the company into a major player on the dairy market.

The evolution of the main economic indicators of PRODLACTA SA is shown in Table 1.

Year	Turnover [lei]	Income [lei]	Expenditure [lei]	Net profit [lei]	Number of employees
2009	58,858,972	60,121,387	62,416,418	-2,365,137	436
2010	48,570,768	42,905,373	51,025,854	-8,116,730	356
2011	18,190,357	16,884,850	23,764,182	-6,879,332	164
2012	9,175,548	12,557,316	21,659,465	-9,051,428	81
2013	25,621,264	26,386,029	38,146,574	-11,760,545	144

Table 1. *Evolution of the main economic indicators of PRODLACTA SA in 2009-2013*

Source: http://www.prodlacta.ro/sitfin/Raport_anual_2013.pdf

As it can be seen, the firm's revenues have steadily declined in this period, with a slight recovery in 2013, while expenses, although decreased, were higher than the incomes, situation which determined the insolvency. Furthermore, the number of

employees declined. The company ended 2013 with a turnover of 25.6 million RON (5.8 million euros), about three times higher than the amount reported in 2012 and a loss of 11.7 million. (<http://www.wall-street.ro/articol/Companii>). It also ended the first nine months of 2014 with losses of 6.4 million. (<http://www.ziare.com/brasov/stiri-business>).

The main customers of PRODLACTA S.A. are the major hypermarket chains in the country: Carrefour, Kaufland, Auchan and Cora. The company's products can be found also in small shops. The company also has its own stores in Brasov. Other clients of the company are traditional Romanian stores abroad (Spain, Italy, Ireland, Moldavia, etc.), hospitals, military units, and other distributors (intermediaries).

Although a market sharing based on sales is difficult to achieve because each of the dairies is leading another product, a ranking by turnover shows that the market is divided between Friesland, Danone, La Dorna and Hochland. Friesland has four factories in Transylvania: Satu Mare, Cluj, and Mures County. Each has three to four satellites, which makes Agrup Frisia turnover to rise to 120 mil. Euro per year. The next competitor is Danone, which is leading on the yogurt market. On the Brasov market, PRODLACTA S.A. is the leader, with a market share of about 57%.

3. The implementation of ISO 22000

The study of the purchasing behaviour and consumption products represents, for managers, an important source of information that can be used to substantiate the market strategies that managers seek to plan and implement in order to increase the efficiency of the activity of their companies (Bărbulescu and Bălțeanu 2012, 63). The studies reveal that the customers prefer products obtained with ISO certification.

To improve the quality of the products offered and to be able to enter EU markets with its products, the company resorted to the strategy of implementation of ISO 22000 certification in terms of food safety and security.

This is the first international standard on food safety management. Food safety is a concept indicating that food will not cause harm to the consumer when it is prepared and / or eaten according to its intended use. ISO 22000 identifies, evaluates and controls all physical hazards, chemical or biological materials that are generated, enclosures, environment, personnel, equipment or production processes. ISO 22000 is based on HACCP (hazard analysis and critical control point).

For PRODLACTA S.A., the implementation of this standard has assumed the fulfilment of requirements on equipping and upgrading the laboratory for product analysis, metrology laboratory, implementation of product traceability, hygiene, product quality etc. Standard implementation began in 2013 with the takeover by the JLC group and reorganization of the company's management.

The laboratory was equipped and organized to carry out organoleptic, physicochemical and microbiological analysis for raw materials and finished products and health tests (microbiological analysis for water, air, etc.). There were provided spaces for preparing and sterilizing dishes, reagents and culture media, reagents and other materials storage, room thermostat to check preservation of products. The laboratory has a computerized system for the management and exploitation of the data obtained. All laboratory test results are recorded and archived.

The upgrade of the laboratory was conducted over five months at around 875,000 euros costs. The modernization consisted in the purchase of new equipment, upgrading of the existing ones, renovation and relocation of the existing space. From the sale of old equipment there were received about 135,000 euros. It was estimated a period of 10 years for the depreciation of this investment.

The Metrology Laboratory provides the measurement accuracy by various appliances and devices in the manufacturing process and laboratory analysis. To do this, the metrology lab makes internal calibration and checks with the help of the Romanian Bureau of Legal Metrology.

To improve the quality of checks and measurements, the two people responsible for these activities were sent to be trained in Germany. The computer systems used have been updated. Costs incurred by the company for these improvements were at about 3000 euro, a relatively low as it used EU funding from grants.

PRODLACTA S.A. implemented a traceability system that covers the entire manufacturing process and primary distribution of raw materials to distribution to authorized distributors. In order to do this, it was purchased modern and advanced software to ensure optimum traceability in time and quality.

In addition to the external audit services, PRODLACTA SA created an internal audit department of quality. Audits are followed by the development and implementation of plans for corrective / preventive actions.

The staff is trained according to the law regarding hygiene, these trainings being made regularly within the professional training program. The staff in production and laboratory analysis is trained on monitoring critical control points located in their area. In the production areas there were placed basins with presence sensor or pedal and dispensers of liquid soap and paper for wiping hands. Near the packaging machine and other areas where increased precautions are necessary dispensers of disinfectant were placed.

According to legislation, the staff undergoes medical examination at employment, and periodically thereafter. The funds required for ensuring staff hygiene facilities were of approximately EUR 100,000 repayable funds obtained through European funding programs.

The carrier ensures the collection and transport of milk to processors in optimal time, temperature, and cleanliness. Tanks used for transporting milk must bear a clear indication that they are used only for food transportation. This shall be

accompanied by the roadmap or other document accompanying the consignment certifies that the vehicle has been washed and disinfected, bearing the date and signature of the person who performed disinfection and the stamp "disinfected". To comply with the requirements of the ISO 22000 standard, existing tanks for milk transportation were upgraded and there were purchased two new tanks.

The results already noticed and those expected by the company to be obtained due to the application of the certification strategy can be grouped based on two criteria: qualitative and quantitative results.

Qualitative results regard particularly to how the company wants to be perceived on the market. These relate to:

- Official recognition of the company's capability to produce, distribute and sell safe food for consumers;
- Qualification as a producer of dairy products;
- Ensure compliance with the legislation;
- Better market image and competitive advantage and staff motivation;
- Reducing food risk until extinction;
- Cost reduction of the final testing of the product;
- Increasing consumer confidence in products;
- Long-term losses excluding costs related to raw material and product recall from the market and reducing barriers to international trade.

Quantitative results refer to results expressed numerically. Since the standard was implemented only in 2013, these results are not yet visible. But it was predicted that in the next decade nearly one million euro investment will be completely written off and, due to implementation of this standard:

- The costs of non-compliant products will be reduced with 95%;
- The final product testing costs will be reduced by up to 75%
- Sales will increase by over 50% due to increased customer confidence in product quality;
- Export earnings will increase by over 30% due to increasing customer confidence on the international markets. At a national level, the policy makers should find clearer ways to support the Romanian economy competitiveness, as in terms of the participation to the European market. For example through exports, Romania has a relatively modest participation, thus showing some gap maintained in terms of competitiveness of our products and services (Drumea and Spataru 2011, 385);
- The range of products will be diversified due to the modernization drive.

4. Conclusions

Due to the entry of powerful competitors and of substitutes, PRODLACTA SA began to record losses. To survive, it was necessary to come up with improvements, which happened in 2012 when the company was taken over by the JLC group. In

this respect, investments have been made both in technology and in marketing (participation to presentations locally, nationally and internationally to promote products), human resources and quality management. Technology allows the producer to have a close relationship with the buyer and to use personalization strategies for a large number of customers (Epuran 2002, 144). In this respect, Romanian companies can develop applications that support a better relationship between the producer and the customer (Boșcor 2015, 231)

By implementing the ISO 22000: 2007 Food Safety Management System there were made investments in the information systems, specialization programs for employees, equipment, the modernization of products analysis and metrology laboratories. To achieve positive results in a short time, the company should seek new strategies for quality, possibly by observing carefully the competing companies. Quality is a real global strategic force, but it is also difficult to apply (Băltescu 2010, 138).

5. References

- Băltescu, Codruța A. 2010. *Strategii de marketing în turismul montan românesc*. Brașov: Editura Universității Transilvania din Brașov.
- Bărbulescu, O., and C. Bălțeanu. 2012. "The Analysis of the Brașov Consumer Behavior Regarding the Use of the Leasing Services." *Annals of the University of Petroșani, Economics*, 12 (2), p. 63.
- Boșcor, Dana. 2015. "Export strategies adopted by Romanian SME". *Bulletin of the Transilvania University of Brașov*, Vol. 8 (57), Nr.1, Series V, p. 227-233.
- Drumea, C., and E.C. Spatariu. 2011. "On the Competitiveness, between Inputs and Outputs. Romania's Case in the EU." *Ovidius University Annals, Economic Sciences Series* 11(2), p. 385-390.
- Epuran, Gheorghe. 2002. *Marketing international*. Bacău: Editura Plumb.
- Juran, Joseph Moses. 2000. *Planificarea calității*. București: Editura Teora.
- Madar, Anca. 2015. "Implementation of total quality management. Case study: British Airways." *Bulletin of the Transilvania University of Brașov*, Vol. 8(57), Series V, Nr. 1, p. 125-132.
- Madar, A., and N.A. Neacșu. 2014. *Quality management for products and services*. Lambert Academic Publishing.
- http://www.prodacta.ro/sitfin/Raport_anual_2013.pdf
- <http://www.ziare.com/brasov/stiri-business>
- <http://www.wall-street.ro/articol/Companii>