### QUALITY STRATEGIES APPLIED BY THE COMPANY STAR EAST PET

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Abstract: The purpose of the present paper is to analyze the quality strategies applied by the company Star East Pet SRL. One of the reasons which brought about the performance of this study is represented by the fact that, at present, the quality of goods and services offered on the market has acquired an increasingly important role, both for producers and consumers. Thus, quality represents for producers the possibility to be different from competitors and to attract new customers, whereas for consumers, quality is an important factor to differentiate products, which often leads to the decision whether to purchase a product or service or not. The main objective envisaged by this paper is to identify the strategies adopted by the firm, the necessary measures for implementing the certification strategy, as well as the results triggered by the implementation of these measures.

**Key words:** strategy, study, quality, analysis.

#### 1. Introduction

Within a dynamic and strongly competitive marketing environment, the most important requirement for the success of a service company is competitiveness. Any company can be competitive only if it produces, sells and gains after the sale process. An important factor that appears in all these "stages" is the quality of the service/product, considered as being "the most important factor of competitiveness" [4].

The foundation  $\alpha f$ enterprise requirements towards quality represented by the place and importance of the quality factor in the general strategy of the company, and the employees' capacity and availability to consider the quality management a process of continuous improvement. [1] If survival is possible quality, the experience of through companies which succeeded this way has

shown the fact that new concept linked to quality is necessary. The starting point in the modern approach of quality is the standard ISO (International Organization for Standardization) 8402:1988, through which the international consensus is reached regarding the terms, definitions and concepts applicable to quality–according to this standard, quality represents the features of a product/service, giving it the ability to satisfy the explicit and implicit needs of the user.

The standard ISO 9000:2000 brings a new vision on the quality concept. According to this standard, the quality is the extent to which the set of implicit features satisfies the demands.

For most of the companies and managers, it is not enough to have a quality system implemented; the quality of

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products/services should be improved continuously and permanently.

In the field of quality, the term improvement means the organized creation of a beneficial change, achieving unprecedented levels of performance. A synonymous would be the term progress. [3]

#### 2. The quality strategies

Being an iterative process, quality improvement becomes, in fact, continuous improvement of quality. The target of the continuous improvement of quality is the development of the company simultaneously with satisfying attracting loyal customers. That is why, taking into account the objectives and the existing resources, it is essential that each company should plan in advance a certain quality strategy.

The strategies in the field of quality can be structured in a few alternatives:

- ▶ the indirect strategy, when attention is granted to the development of industrial activity, being estimated that, through a better management, a better quality can be obtained:
- ▶ imitative strategy, when procedures for quality which were successful in other companies are applied in industrial activities;
- ▶ the certification strategy, when procedures required by quality standards are implemented (ISO 9000);
- ► the type strategy, when a high efficiency is searched and there is a trend towards the strategy of total quality;
- ▶ the specific strategy, developed on the basis of one's own quality philosophy and available resources.

Taking into account the fact that the company Star East Pet has focused on certification strategy, this concept needs to be further discussed. The certification process ISO represents a management tool used to ensure that the companies' policies

are consistent with the quality of international standards ISO; following this process, a company is considered as being ISO certified. The ISO certification term means that the ISO policies and procedures of the company have been approved by an ISO accredited certification body. [6]

When a company considers that the internal operational ISO policies and procedures are consistent with the ISO certification requirements (the requirements of ISO reference standard), it can start the certification procedure ISO by selecting a certification body ISO- an independent company performing inspections and audits in the name of ISO.

The representative of the certifying company ISO will achieve an audit in order to determine the fact that the procedures and policies of the company meet certification requirements. The ISO certification is valid for three years, requiring periodic verification audits.

After obtaining this ISO certificate, the representative of the certified recording body will come back periodically (usually every 6 months to 1 year) to determine if that company meets further the certification requirements. These visits represent checking audits, being as detailed as the recording audit ISO, including checking inspections of the compliance with any changes in the ISO standards from the last audit.

In this paper, the certification strategy of the company analysed includes the system HACCP, which is a management system for food safety. HACCP (ISO 22000) is the abbreviation from Hazard Analysis & Critical Control Point.

Obtaining the HACCP certification proves customers that the techniques and requirements are implemented in order to ensure food safety.

HACCP is a system of food safety based on prevention. It shows a systematic method for the analysis of food processes, determining possible risks, and appoints the Critical Control Points required for preventing unsecure food to arrive at the customer. HACCP is based on Food Code (Codex Alimentarius) developed by the United Nations Organization for Food and Agriculture and the World Health Organization.

It is recommended that the HACCP system be used together with a good practice of hygiene and good practice of production. Together with these, it creates the food safety elements. It is also recommended that it should be combined with a quality management system – ISO 9001.

## 3. Star East Pet SRL3.1. Short history

The company Star East Pet was founded in 1997, according to Law nr 31/1990 regarding commercial companies, as a company mainly oriented towards the industrial production activity. The present core activity of the company is processing of plastic materials, the preforms production of made of polyethylene terephthalate for the production of bottles for food (for water and soft drinks, carbonated beverages beer etc.) and non-food. <sup>5</sup>

### 3.2. The company's microenvironment a) Competitors of the company

Currently, Star East Pet is market leader in Romania in the field, having an installed maximum production capacity of 600 million preforms.

The most important competitors of Star East Pet are:

- 1. AMRAZ GROUP (Bucharest);
- 2. PET STAR HOLDING SRL (Slobozia), both producing plastic materials products.

#### b) The suppliers of the company

The main raw material used in the production process of the company Star East Pet is the polyethylene terephthalate

as granules. Besides virgin granules, recycled granules are used for food and different dyes and additives and packages. The main suppliers of virgin and recycled Sabic Sales granules are: Europe (Hungary), Artenius Hellas (Greece), Daewoo International (Koreea), Invcorexim (Romania), M&G Polimeri Spa (Italy), Ic Management (Austria), Mitsubishi International (Germany).

Dyes and packages are acquired from Repi Spa (Italy), respectively Kappa Packaging (Italy).

#### c) The customers of the company

The concern of the staff from Star East Pet was to gain as large as possible a market share and to collaborate with many customers, especially from the country, but, starting with 2009, the export deliveries have increased. In 2010, the export sales reached 10% of total sales. The efforts made in investing in new equipments were determined by the continuous increase of customers and by the desire to offer a more diversified production range. The total number of customers is approximately 10.

The customers of Star East Pet are companies, the most important being:

- 1. QUADRANDT AMROQ BEVERAGES SRL Bucharest;
- 2. COCA COLA HBC (producer of carbonated s drinks, collaboration with several factories):
- 3. BERGENBIER STARBEV (European beer producer, collaboration with several factories);
- 4. UNITED ROMANIAN BREWERIES BERE PROD (Tuborg beer producer, Skol, Carlsberg);
- 5. ALBRAU PROD SA (local beer producer, Coroana).

From the SWOT analysis of the company Star East Pet, it results that it is a strong company on the market, which implies economic and financial stability. Because of being endowed with a very

efficient technological line, the company has a permanent and continuous production flow.

Although the company is a market leader, it has a low number of employees in the summer period and it faces a decrease of the production process in the cold period.

Attracting new customers and gathering information about the changes in customers' requirements can lead to a differentiation strategy and can determine a significant and durable increase of the company's revenues and its profits.<sup>6</sup>

The entrance on the market of the company Resilux can lead to a change in the ranking of the companies from the field of plastic materials. That is why it is important for the company to adopt new strategies for maintaining the market share and for raising the quality of the products offered.

As a conclusion, although the company Star East Pet is stable and has several strengths, there are several external factors that can not be controlled and that can affect the company's activity on the long term.

### 4. Quality strategies adopted by Star East Pet SRL

The most important quality strategy adopted by Star East Pet is the certification strategy, which means the implementation of procedures required by quality standards.

In order to ensure a constant quality of products, the company Star East Pet has implemented and certified two management systems:

- ➤ A quality management system according to standard ISO 9001:2008;
- ➤ A food security management system according to standard ISO 22000.

The policy of Star East Pet is to offer its customers high quality products, to comply with the contractual requirements, the legal and regulatory requirements applicable in the field. The company has implemented and maintains an integrated quality management system according to the requirements of the reference standard SR EN ISO 9001:2008 and the principles HACCP.

The quality objectives envisaged by the company Star East Pet are:

- ➤ To offer customers quality products, according to specified conditions, at the established terms and in enhanced safety conditions for food, in order to continuously increase their satisfaction;
- ➤ To develop strong partnership relations with customers and suppliers;
- To continuously increase the value of the human resource by using specific training which can ensure the development of skills and competences necessary for each employee.

Measures taken for the implementation of quality standards:

- ➤ The purchase of new equipments for the improvement of the production process and the quality of products, so these comply with new standards;
- ➤ The purchase of cardboard caps for the tough preform boxes, which can not break easily during handling and transport;
- ➤ The purchase of thicker polyethylene bags in order to avoid the risk of breakage during the process of preparing and packaging the preforms;
- ➤ The purchase of more resistant cardboard boxes that do not break during transport;
- The extension of epoxy resin pavement on all the surface of the production facility;
- ➤ The purchase of rapid sanitation tests in order to verify the degree of cleaning of conveyor belts;
- Using appropriate equipments for the production process;

- Ensuring proper conditions for warehousing and handling;
- ➤ The control of products, on the production flow and at the end of the manufacturing operations;
- ➤ The implementation of services support-communication;
- Using specific documentation for aligning to the requirements of standards;
- Proper training of the staff in order to efficiently perform the appropriate work tasks.
- The costs of implementing the necessary measures for the implementation of quality standards:
  - Consultancy for the implementation of standard requirements: 900 euro;
  - Certification cost of ISO 9001:
    - Audit for certification: 800 euro;
    - Supervision 1: 500 euro;
    - Supervision 2: 500 euro;
  - The implementation of corrective measures after the audit in order to identify the standard deviation: 3000 euro;
  - Epoxy resin floor extension on all the surface of the production facility: 1000 euro;
  - The purchase of rapid sanitation tests in order to verify the sanitation degree of conveyor belts: 450 euro;

- •The purchase of cardboard caps for the tougher preform boxes, which should not break easily during handling and transport: 350 euro;
- The purchase of thicker polyethylene bags in order to avoid the risk of breakage during the process of preparing and packaging the preforms: 210 euro;
- The training of the quality management representatives: 250 euro;
- Training of the employees: 3500 euro.

# 5. The effects of quality strategies implementation

➤ The reduction by 20% of the non-conforming products:

Non-conforming products in 2009: 1 million pieces x 50 euro/ $_{1000 \text{ pieces}} = 50.000$  euro;

Non-conforming products in 2010:  $800.000 \text{ pieces } x 50 \text{ euro/}_{1000 \text{piecesi}} = 40.000 \text{ euro;}$ 

- => savings of 10.000 euro.
- The increase of sales with 10% in the situation of a profit margin of 3% = 15.000 euro;
- The reduction of energy consumption by 5% = 10.000 euro;

Total savings + profit increase = 35.000 euro.

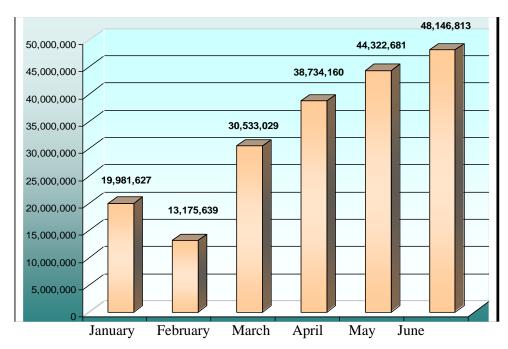


Fig. 1. The evolution of conforming preforms in the year 2010

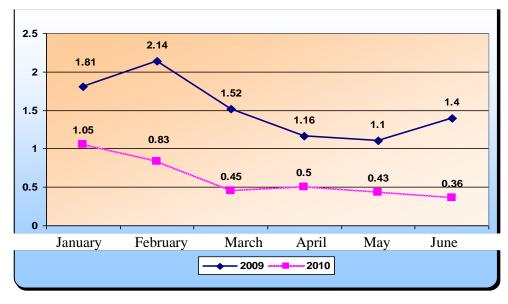


Fig. 2. The evolution of scrap rate in the years 2009 and 2010

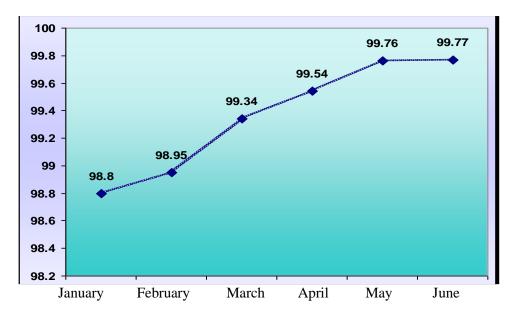


Fig. 3. The evolution of quality rate in the year 2010

According to figure 1., an evolution can be noticed regarding the conforming preforms after the implementation of ISO quality standards, meaning that the results obtained after applying the standards were very good.

Figure 2. shows that the evolution of the scrap rate after the implementation of ISO standards has recorded a significant decrease, meaning that the products made tend to have a better quality.

The increase of the number of conforming products in 2010 and the decrease of the scrap rate in the same year, shows the fact that the quality level (figure 3) had a continuous increase, reaching almost the maximum threshold of the preforms quality.

Although the recorded results are satisfactory, the company Star East Pet uses a system for the continuous improvement of its products through:

The analysis of nonconformities and other data supplied by the management system, including the Audit Reports (internal and external) and the determination of appropriate actions;

- The identification of potential problems and the determination of necessary actions;
- The analysis of customer complains;
- ➤ The planning of additional or alternative resources.

#### 6. Conclusions

Following the case study, it results that the company Star East Pet has implemented in the field of quality standards ISO 9001:2008 and ISO 22000. In order to adopt these standards, the company had to apply certain measures, leading to the improvement of the production process quality, and implicitly of the finished products.

Although the costs of implementing these standards were high, the results obtained have exceeded the company's expectations. The number of conforming preforms has recorded a significant increase, the scrap rate has continuously decreased, which implies a higher quality rate, leading more and more towards reaching the threshold of total quality. Regarding the proposals for the

improvement of the company's activity, and implicitly the quality, the following can be identified:

- ★ minimization of unscheduled shutdowns (voltage drop) by purchasing an alternative power generator;
- ★ testing the raw materials provided by all the suppliers, in order to avoid the nonconformities of finished products caused by this thing;
- ★ in order to motivate the staff, certain graphs might be displayed in departments, regarding the scrap rate, running time and quality rate;
- ★ extension of storage for a better handling and better management of preforms stock.

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