

## QUALITY OF PRODUCTS, THE CONCEPT, FUNCTIONS AND FACTORS THAT INFLUENCE IT

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### *Abstract*

*The paper aimed to present the quality of products, the concept, functions and factors that influence it. Primordial for public health policy and economic policy is to protect the health of organisms, especially humans, at all stages of the technological process. On the worldwide level there is a tendency to ensure that citizens have access to safe and nutritious food, and therefore, it is a must to guarantee the proper functioning of the food industry. International policy protects health at every stage of the production process, that is at every stage of the process, from the agricultural farm up to the consumer. It intends to prevent food contamination and promotes food hygiene and documentation on the health and welfare of plants and animals.*

*Key words:* health, market, quality of products, questionnaire method, consumer's opinion on product quality

### INTRODUCTION

Protecting the health of organisms, especially those of humans, at all stages of the technological process is of primary importance for the public health policy as well as the economic policy. Worldwide, there is a tendency to ensure citizens access to safe and nutritious food and food, made from very healthy animals and herbage.[8] For this purpose, it is necessary to guarantee the proper functioning of the food industry. International policy protects health at every stage of the production process, that is, at every stage from the farm up to the final consumer. It aims at preventing food contamination and promoting food hygiene and documentation on the health and well-being of plants and animals. Quality is defined as an important feature of all services and products[2]. It is a summation of the features of a product and service to meet the needs of existing consumers, needs that may be expressed or not. In specialized documents quality has also been defined as "what the customer is willing to pay according to what it gets and capitalizes", respectively "fitness for use". The level of quality is directly proportional to the level of fulfillment of its functions: the economic function (referring to:

different aspects of the economic type throughout the realization of the products and the efficiency of the entire economic process); the technical function relating to the functional and technical features of any product; the social function which refers to the way in which the quality of any product directly influences the quality of life and the environment.

### MATERIALS AND METHODS

A feature of quality is that it is in a perpetual redefinition, being modified to meet the growing demands of consumers. Since the 1980s Western enterprises, especially the American ones, have understood two aspects previously neglected:

- the importance of quality and customer satisfaction related to quality for the success of the enterprise;
- the need to consider quality not only as a single objective but also as a management objective. Quality is an essential part of products and services.[7] According to STAS ISO 8402 - 1995, quality is the totality of the particularities of a product that assigns the role of meeting the customer's default requirements.[6] Dictionaries and specialized

writings offer many other definitions of quality, such as:

- Quality is customer satisfaction;
- Quality is fitness for use;
- Quality is what the customer wants to buy and enjoy. [1]

-Quality has a technical part that characterizes the attributes of all products and services made by manufacturers. That is why a product has a higher degree of quality than another.

-Quality is what makes the product to be bought. The conditions that drive the success of an outlet and selling products are multiples. They include the market conditions, the nature of the product/ service, the image created by advertising, the socio-cultural particularities of the customers, etc. The most important feature that ensures product resistance on the market is their quality that has been audited by the consumer[3].

The method used to learn the needs and the greatest consumers is the questionnaire.[4]

Polls will be conducted by completing questionnaires and interviews applied to the producer, distributor, consumer.

### QUESTIONNAIRE

Name .....Forename.....  
 Gender M F Age.....  
 Education .....  
 Profession .....  
 Product name: Bread, Producer, „Dobre and Sons”  
**GENERAL QUESTIONS**

Please tick the answer:

1.How long have you been using bakery products of „Dobre and Sons”?

<input type="checkbox"/> Less than 6 months	<input type="checkbox"/> Between 6 months and 1 year
<input type="checkbox"/> Between 1 and 3 years	<input type="checkbox"/> More than 3 years

2.Why did you choose to use bakery products of „Dobre and Sons”??

<input type="checkbox"/> Quality products	<input type="checkbox"/> Out of habit
<input type="checkbox"/> Competitive prices	<input type="checkbox"/> Other

3.What makes you continue to use bakery products of „Dobre and Sons”?

<input type="checkbox"/> Quality products	<input type="checkbox"/> Out of habit
<input type="checkbox"/> Competitive prices	<input type="checkbox"/> Other

4.What bakery products of „Dobre and Sons” do you prefer?

<input type="checkbox"/> Black bread without additives	<input type="checkbox"/> Graham bread	<input type="checkbox"/> Toast specialities
<input type="checkbox"/> Casino bread	<input type="checkbox"/> Small French Bread	<input type="checkbox"/> White rustic bread
<input type="checkbox"/> Fresh baguette	<input type="checkbox"/> Shaped bread	<input type="checkbox"/> White small French bread

5.How often do you use bakery products of „Dobre and Sons”?

<input type="checkbox"/> Once a week or often	<input type="checkbox"/> Three/four times a month
<input type="checkbox"/> Once a month	<input type="checkbox"/> Rarely

6.What do you like at the bakery products of „Dobre and Sons”?

<input type="checkbox"/> Freshness	<input type="checkbox"/> Taste	<input type="checkbox"/> Consistency	<input type="checkbox"/> Packaging
<input type="checkbox"/> Ingredients	<input type="checkbox"/> Form of delivery	<input type="checkbox"/> Diversity	<input type="checkbox"/> Shape

7.What do you dislike at the bakery products of „Dobre and Sons”?

<input type="checkbox"/> Freshness	<input type="checkbox"/> Taste	<input type="checkbox"/> Consistency	<input type="checkbox"/> Packaging
<input type="checkbox"/> Ingredients	<input type="checkbox"/> Form of delivery	<input type="checkbox"/> Diversity	<input type="checkbox"/> Shape

8.How important are the following features of the bakery products „Dobre and Sons”? (Add a number as: 1- unimportant, 2- neutral, 3- important, 4- very important).

Smell	<input type="checkbox"/>
Taste	<input type="checkbox"/>
Color	<input type="checkbox"/>
Freshness	<input type="checkbox"/>
Product safety	<input type="checkbox"/>

9.Have you heard of the Food Safety Management System (ISO) and HACPP (Hazard Analysis Critical Control Point)?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> I don't know	<input type="checkbox"/> I'm not interested
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10.Did you know that „Dobre and Sons”company has implemented ISO and HACPP (ISO Certificates 140001: 2004; ISO 22000:2005)?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> I don't know	<input type="checkbox"/> I'm not interested
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11.Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons”company, would you recommend these products to other people?

<input type="checkbox"/> Yes, certainly	<input type="checkbox"/> I'm not sure
<input type="checkbox"/> I'm not interested	<input type="checkbox"/> No

12.Specify aspects that can be improved at the bakery products „Dobre and Sons”that you have eaten.

.....  
 .....  
 .....

This questionnaires were applied to a group of 120 people of different ages: from under-18s to over 60s.

## RESULTS AND DISCUSSIONS

### Types of bakery products regularly consumed

White bread is consumed by all people, followed by graham bread and in much smaller quantities the black bread without additives, the fresh baguette and casino bread ( Fig.1.)

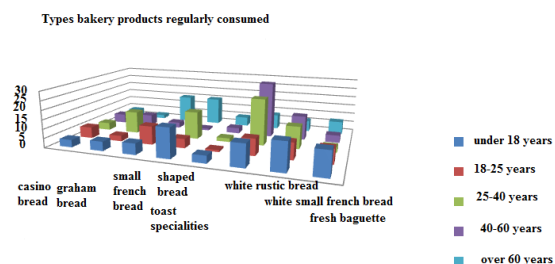


Fig. 1.Types of bakery products regularly consumed

White bread is preferred by people over 60, with twice as high percentage as those under the age of 18. People aged between 18-25 years and 25-40 years consume relatively equal amounts of white bread. Black bread without additives, casino bread and graham bread is consumed in negligible quantities.

### Degree of client satisfaction

Figure 2 shows graphically the customer's satisfaction with the bakery products of Dobre and Sons on the basis of freshness, ingredients used, taste, delivery form and presentation, consistency, diversity and packaging.

As you can easily see, young people aged 25 to 40 are the most interested in ingredients, in order to benefit from healthy products and a balanced diet.

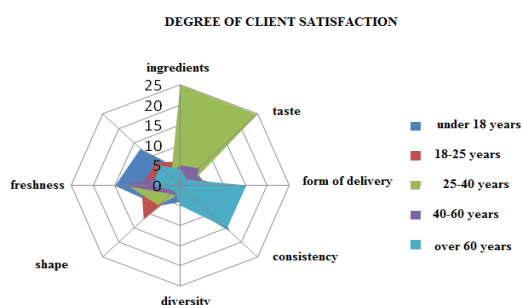


Fig. 2. What do you like at these bakery products?

People over 60 are most interested in delivery forms, partly due to the limitation of their financial possibilities, and people under 18 are most attracted to the form of presentation, packaging and taste in all the diversity of its flavors.

### Degree of dissatisfaction regarding bakery products of „Dobre and Sons”.

Figure 3 shows graphically the degree of customer dissatisfaction regarding bakery products of „Dobre and Sons”, based on freshness, ingredients, taste, delivery form and presentation, consistency, diversity and packaging.

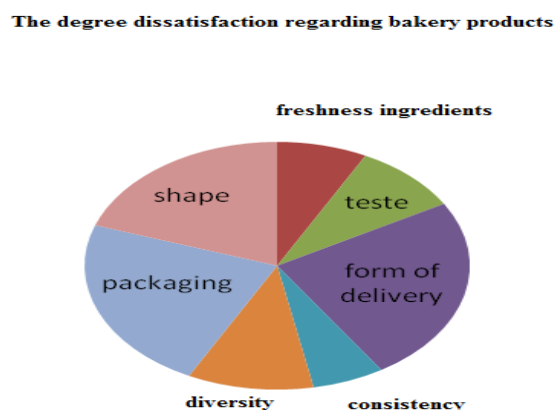


Fig. 3. The degree of dissatisfaction regarding bakery products of „Dobre and Sons”

As one can observe, the percentage of dissatisfaction has increased and similar shares to the criterion of consistency and freshness. Following the applying of the questionnaires, customers have specified that some packaged bakery products tend to mold shortly after purchase due to the fact that they are hot when packed, which favors the emergence of mold on products.

### The importance of different characteristics of „Dobre and Sons”bakery products

Figure 4 illustrates the importance of different aspects of „Dobre and Sons” bakery products: smell, taste, color, freshness, product safety. Organoleptic characteristics are as important to consumers as the safety of the product. As time has passed, the consumer has been educated itself about the quality assurance of the purchased products, thus implicitly about the safety of the bakery products. This is very important because the customer is no longer willing to buy and consume anything,

anywhere. This is why the responsible producers who will invest in the safety of the people and implicitly in their company's reputation will be the ones surviving on the market.

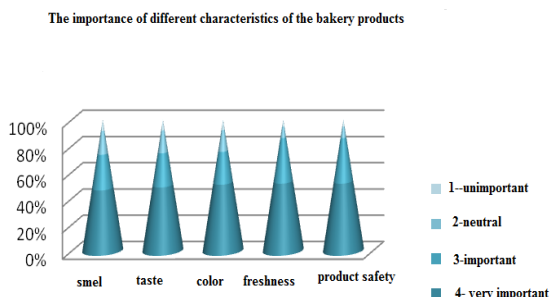


Fig.4 The importance of different characteristics of „Dobre și Fiii”bakery products

**Consumer's knowledge on food safety**  
 Consumer knowledge of the Quality Management System is represented in the diagram of Figure 5.

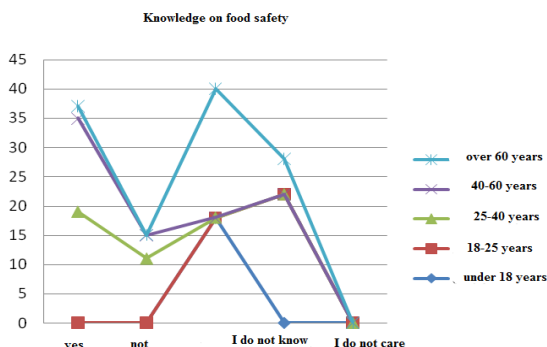


Fig.5. Knowledge on Food Safety Management System

Adolescents have no knowledge of food safety; they think it's important for a product to be safe, but they do not have any concrete information about it.

For people aged 18 to 25, there is a lack of interest in this area. For people aged 25 to 40 we may talk about knowledge and interest in food safety because 2/3 of respondents have answered affirmatively.

This also applies to people aged 40-60. People aged over 60, 75% do not know and 25% are not interested. They do their shopping in connection to the price of a product.

**Knowing the implementation of HACCP at „Dobre and Sons” company**

There is a paradox in the case of adolescents: although they say they have no knowledge of the Food Safety Management System, 83% answer affirmatively when asked about knowing how the system is implemented the system at "Dobre și Fiii". Surely the answer is directly related to the fact that the company and its products are well-known. (Fig.6).

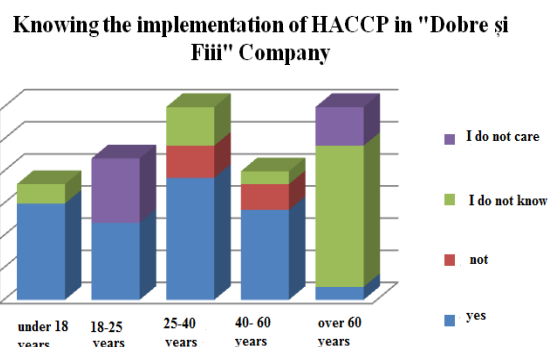


Fig. 6 Knowing the implementation of Hazard Analysis Critical Control Point in "Dobre and Sons" company

At young people responses we noticed equal percentages of affirmative responses and lack of interest in the subject. For the 25-40 and 40-60 age groups, there is a major interest in this subject, with respondents mostly responding affirmatively. For seniors, interest in this issue is almost zero, with other considerations in mind.

**Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons” company, would you recommend these products to others?**

The following figures illustrate the answers to the question: "Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons” company, would you recommend these products to others?" as follows:

Fig.7 reflects the affirmative answer of the respondents by age category. An approximately equal number is found for the first four age categories and a very low interest for seniors.

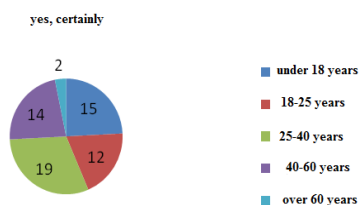


Fig. 7. The share of YES answers by age of the respondents to the question "Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons” company, would you recommend these products to others?"

Figure 8 shows that a small and sensitively equal number of mature individuals have uncertainties about the recommendation of the company and its products.

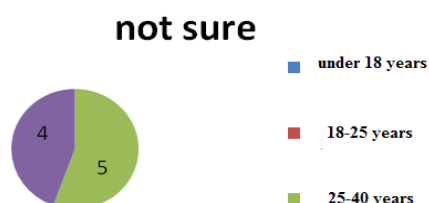


Fig. 8. The share of NOT SURE answers by age of the respondents to the question "Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons” company, would you recommend these products to others?"

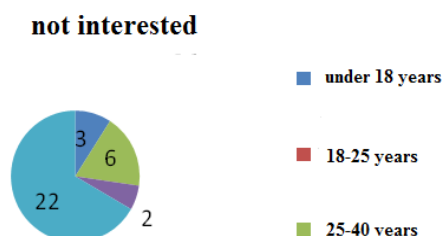


Fig. 9. The share of NOT INTERESTED answers by age of the respondents to the question "Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons” company, would you recommend these products to others?"

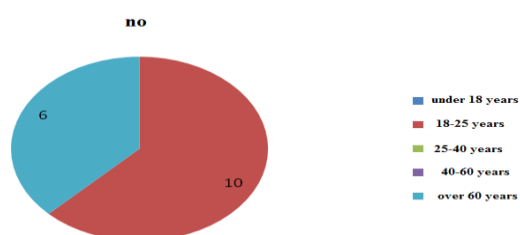


Fig. 10. The share of NO answers by age of the respondents to the question "Knowing that implementing food quality and hygiene standards at their bakery products is very important for „Dobre and Sons” company, would you recommend these products to others?"

Two-thirds of respondents (i.e. those over the age of 60) are not interested in recommending the company and its products due to HACCP implementation, because they make recommendations based on the quality and price of the products (Fig.9.).

Figure 10 shows that seniors and young people do not recommend products based on the implementation of the food safety system, the reasons for the recommendations being quite different.

### Aspects which should be improved regarding „Dobre and Sons” bakery products

Regarding the aspects that can be improved with „Dobre and Sons” bakery products, those have been mentioned the most are the following ones:

- moisture of packaged products;
- storage time after unpacking;
- consistency of the core.

Adolescents and young people were not very brief and determined to specify the issues that can be improved.

The mature people know very well what they do not like, therefore needs to be improved and the seniors are generally dissatisfied, but they do not mention strictly the quality of the products.[9]

In terms of gender distribution, women are more precise and brief in their language and more attentive to details, while men are more vocal, but they are not based on real facts and on important aspects in their argumentation. Men buy products under the influence of current factors; most women are knowledgeable and realistic customers.[5] Women are very observant to the characteristics of food in general and, more so, when it comes to products for their own children.[10]

### CONCLUSIONS

In order to detect the opinions and satisfaction of the clients of C.C „Dobre and Sons” L.T.D. regarding the products manufactured and marketed by the economic agent, a questionnaire was established. It was applied to a group of people of different ages: from under

18s to over 60s. The results of the questionnaire were represented in graphic forms and analyzed. There have been important and interesting things discovered related to meeting consumer requirements.

Analyzing the results, we noticed that respondents, regardless of age, sex, occupation, noticed that fresh bread has a wet and slightly sticky core, and the storage time is very short because the products quickly mold. The results confirm that cooling is a critical control point. The indicators related to the technological cooling operation were analyzed: air temperature, air humidity, cooling time. The first two indicators have normal values, the only indicator whose value needed change was the cooling time. For this purpose, the cooling strip was re-designed, changing its length. In order to do this, the cooling and packing compartments were resized by giving up a partition made of lightweight materials. At the same time, the length of the cooling band was increased, the circuit getting a sinuous shape from the output of the furnace up until packing and storage / delivery. In the first part of the circuit, the cooling strip passes over the tunnel furnace, where the air is hot and humid, then gradually reaches the packing and delivery area where, with open space, the air is ventilated and has much lower temperature and humidity.

After the bread cooling circuit was modified, there was an increase in the sales of the white rustic bread product and thus in the fiscal value.

The HACCP system has been modified following its reassessment. Cooling has remained a critical point of control. Modifying the cooling circuit has removed the "wet and sticky core" defect for the moment, but periodic monitoring of the process is necessary. Implementation of HACCP is of major importance in a bakery factory because, since critical control points are identified and the values to be monitored are determined and strictly fixed, the final quality of the products can be controlled. Once again the importance and usefulness of HACCP implementation system is confirmed.

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