

CONSUMERS' VIEWS REGARDING THE INFORMATION AND EDUCATION TO PURCHASE QUALITY FOOD PRODUCTS. CASE STUDY: SIBIU COUNTY

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Abstract: Currently, increasing production and trade of food products has led to the existence on the market of a large number of foods that are purchased by consumers. Consumers need to be informed and educated regarding the quality of food products. A customer who is uninformed and uneducated continues to purchase food products with a lower quality level. Using a questionnaire, the marketing research was conducted to highlight consumers' opinion on the information and education they receive so as to purchase quality food products in Sibiu County. Quota method was used to draw a sample and served to obtain the necessary information for the study. Consumers' views on food products purchase in terms of the amount of information transmitted to consumers through packaging will also be highlighted. The case study can be the basis for producers' notification about consumer views on purchasing quality food products, in Sibiu County, for the purpose of increasing and improving the quality of food products.

Keywords: consumer, purchase, quality, information, education.

1. Introduction

Consumers want the purchases they make to fit a certain expected quality level. It rarely happens that a manufacturer offer the highest quality possible to the consumers, because few of them want or can afford, from a financial standpoint, to purchase these products (Dima, et al. 2005, p. 22).

Meeting customer requirements involves a rigorous substantiating of all the decisions regarding the design and development of a product based on the market research performed. The requirements that were identified and defined by this study should be properly reflected in the specifications that serve for making products. Therefore, the specifications do not represent absolute quality criteria, but only the necessary means to meet customer expectations (Olaru, et al. 2005, p. 49). In scientific literature it is stated that "it has been found that what the manufacturer considers qualitative does not always meet customer's needs" (Maxim 2009, p.15)

Meeting customer expectations cannot be achieved by marketing low quality food products.

Quality and food safety represent two essential priorities in the European Union. The exigent rules of the European Union have been further enhanced after 2000, so that the nutrition of the European citizens should be as safe as possible (Diaconescu, Ardelean and Diaconescu 2007, p.7).

Hygiene and food safety requirements for food products are stipulated in numerous international, European, national regulations some of them with advisory character, other with binding character, but all meant to substantiate the quality and safety of these products and to come in support of the producers to guide them towards accurate, efficient processing, with minimal negative impact on the consumer (Ionete, et al. 2005, p.15). Producers have to meet those legal provisions that refer to the quality and safety of products (Kotler 2000, p.576).

Customers who are not satisfied with the company's products may not only give up any further purchases, but also advise other consumers to do the same. Therefore, mistakes in the quality field could have serious consequences. Present marketers know that a focus on providing the quality

desired by the customer creates customer satisfaction and value, which in turn create profitable relationships with the customers (Kotler and Armstrong 2008, pag.869).

Therefore, a research was done to highlight consumers' opinions regarding their information and education when they purchase quality food products, which helped us to identify the causes that determine the purchase of food products with lower quality level.

2. Methodology

The complexity of processes and phenomena envisaged by marketing research requires varied ways of studying them. In a larger sense, food products and packaging are strongly interrelated, since the main information about a product is on the packaging. The study aims at investigating consumers' views on their being informed and educated in order to purchase quality food products from the point of view of the decision regarding consumer purchase and also in terms of information about the food products. Conducting the research based on questionnaire included a series of strongly correlated activities, materialized in several steps taken in their logical sequence. The research particularly aims at evaluating the consumer views regarding the purchase of quality food products. Formulating objectives consisted in specifying information that is needed when choosing the optimal decision for each stage of the marketing research. The objectives were differentiated according to their importance to the purpose of the research. The main objectives were differentiated (I, II, III), and the related to them, the secondary objectives.

I) Investigation of the time that family members spend to prepare for the purchase of food products, in the current economic and socio-cultural development.

II) What the subjects' opinion is regarding the influence on their option to choose quality food products.

III) What the subjects' motivation is regarding the choice of proper organoleptic food products.

2.1. Research hypotheses development

Everything started from the idea that setting hypothesis has significant practical value in designing marketing research. In determining marketing research hypotheses the focus was on the information that will be required in the analysis process regarding the assessment of consumer opinions on information and education as far as purchasing food products is concerned. Data concerning the structure of population by age, sex and environment were taken from the National Institute of Statistics - County Statistics - Sibiu. The constant population by residence, sex, age is valid from 01 July 2013. The study was conducted during 01 October – 01 December 2013, when pre-testing was also conducted. The structure of population in Sibiu County is presented in Table 1.

Table 1: The structure of population in Sibiu County

Population	Number		
	Total	Males	Females
TOTAL	425.961	207.019	218.942
URBAN	282.341	134.984	147.357
RURAL	143.620	72.035	71.585

Data source: I.N.S. Sibiu, 2013

2.2. Determination of sample size

Determining the sample size starts from the concept of proportion that describes the investigated collectivity. The formula used to determine the sample is:

$$n = z^2 * s^2 / e^2, \quad \text{in which:}$$

n – Sample size;

z – Coefficient associated to probability of guarantee in research results (confidence level) set by the researcher (value is taken from statistical tables);

s – Standard deviation of the sample determined by the level of variables;

e – Margin of error.

The probability to guarantee the results of the research is 95%, where the coefficient associated with the probability of ensuring research results is $t = 1.96$ (Cătoi, et al. 2009, p. 719), and "n" emerged as $n = 139$ consumers representing sample size.

2.3. Determining the structure of the sample by quotas method

By using the sample quota a sample was drawn to serve for obtaining the information. Quota method is a non-random sampling method. The quota method allows the construction of a sample within which one can find individuals whose geographical, socio-demographic, behavioral and economic features, will be very close to those of the reference population. The structure of the sample reproduces as a percentage the structure of the community investigated. The determined sample is made of 139 consumers, in accordance with the step of determining the sample.

In Table 2 we calculated the number of people included in the sample, in percentage, by age. In Table 3 we calculated the number of people included in the sample, in percentage, according to their area of origin. In Table 4 we calculated the number of people included in the sample, in percentage, by gender.

Table 2: Total studied population by age

Age	Total researched collectivity	(%)	Number of individuals included in the sample
20-29 years old	68.928	20,57	29
30-39 years old	70.472	21,04	29
40-49 years old	58.160	17,36	24
50-59 years old	58.512	17,46	24
Over the age of 60	78.860	23,54	33
Total	334.932	100,00	139

Table 3: Total studied population by area of origin

Medium	Total researched collectivity	(%)	Number of individuals included in the sample
Urban	282.341	66,28	92
Rural	143.620	33,72	47
Total	425.961	100,00	139

Table 4: Total studied population by gender

Gender	Total researched collectivity	(%)	Number of individuals included in the sample
Male	207.019	48,61	67
Female	218.942	51,39	72
Total	425.961	100,00	139

The data obtained in Tables 2, 3, and 4 were summarized in Table 5, including the three criteria for structuring the population: age, sex and area of origin.

Relying on the results in Tables 2, 3, 4, we calculated the number of persons included in the sample, for example, for the category of urban women, aged between 30-39 years old we will have the

following calculation: $139 \text{ (sample size)} * 51,39\% \text{ (women)} * 52,19\% \text{ (urban)} * 21,04\% \text{ (age group)} = 8$.

According to calculations, in conformity with quota method, Table 5 was filled in.

Table 5: Quota determination in relation to age, are of origin and gender

POPULATION AGE	Male 48,61%		Female 51,39%		Total
	Urban 47,80%	Rural 50,15%	Urban 52,19%	Rural 49,84%	
20-29 years old (20,57 %)	7	7	8	7	29
30-39 years old (21,04 %)	7	7	8	7	29
40-49 years old (17,36 %)	6	6	6	6	24
50-59 years old (17,46 %)	6	5	6	6	23
Over the age of 60 (23,54%)	8	8	9	9	34
Total 100%	34	33	37	35	139
	67		72		

2.4. Results and Discussion

For data processing Microsoft Excel was used.

1. Determining the number of people who purchase food products

By evaluating the questionnaires, it appears that 136 subjects purchase food products and 3 subjects do not purchase food. For this reason it is necessary to assess consumer opinions regarding food products purchasing in terms of quality. The aim is to identify consumer opinions regarding quality food products purchasing.

2. Investigation of the time that consumers allocate to purchase food products per week

Among the subjects interviewed, 12 (9%) subjects say that they acquire food products once a week, 32 (24%) twice per week and 92 (67%) of the subjects several times a week, as shown in Figure1.

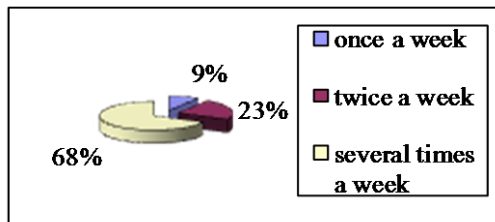


Figure 1. Distribution of the percentage of time spent by consumers to purchase food products Given that the number of consumers purchasing once (9%) or twice (24%) is lower than that of those acquiring several times per week (67%), we can probably state that if they purchase several times a week consumers can be better informed and better educated or require a better information and education.

3. Determining the subjective opinion regarding the importance given to the quality of purchased food products

The importance given to quality of purchased food products was determined, as shown in Figure 2. 7% of the subjects assessed the quality of purchased food products as very good, 79% believe that the quality of purchased food products is good and 6% estimate it as poor and 1% as very poor. 7% do not know if the food products are qualitative.

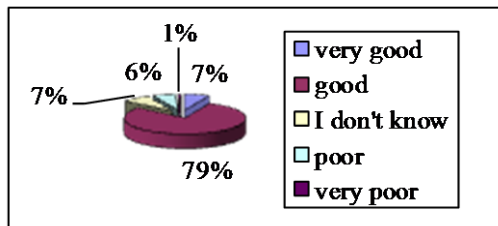


Figure 2. Distribution of the percentage of consumers according to the importance given to the quality of food products. We believe that the percentage of 7% among consumers who purchase high quality food products is low. Increasing this percentage probably requires better quality food promotion, on the assumption that subjects know the difference between a quality product and a non-quality one. However 79% of respondents consider the quality of food products as good.

4. Evaluation of the subjects' opinion on the information and education they receive about the quality of food products

To purchase food products, consumers have to be educated and informed. Concerning this question, 62% of the respondents believe that they are much educated and informed regarding the quality of food products. Only 9% of the respondents believe they are highly educated and informed about the quality of food products, and 29% are not informed and educated.

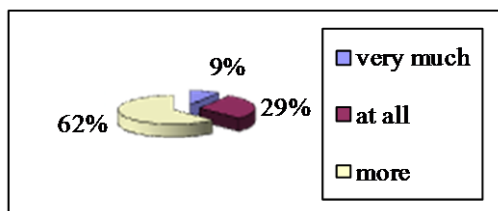


Figure 3. Distribution of the percentage of consumers regarding their information and education about the quality of food products

It is apparent that only 9% are highly educated and informed. This percentage may suggest that the promotion around quality food products is poor, and it is necessary to lay more stress on promoting quality food products.

5. Evaluation of the views of the subjects if they have the necessary knowledge to distinguish between a quality food product and a non-quality one.

To purchase food products, consumers have to be educated and informed to distinguish between a quality food product and a non-quality one. Concerning this question, 56% of the respondents consider that they largely possess the necessary knowledge to distinguish between a quality food product and a non-quality. Only 12% of respondents consider that they do not know, and 32% of subjects make little distinction between a quality food product and a non-quality one.

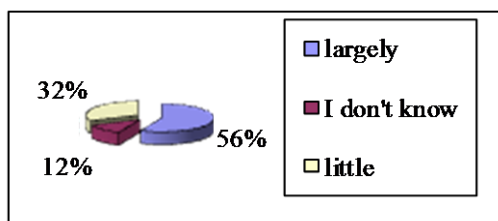


Figure 4. Distribution of the percentage of consumers according to necessary knowledge so as to distinguish between a quality food product and a non-quality one

From the data analysis, only 56% of subjects have the necessary knowledge to distinguish between a quality food product and a non-quality one, which probably means that the remaining subjects practically did not receive enough information if a food product is high quality. In support of this assertion is the 12% that can not distinguish between a quality food product and a non-quality one.

6. Evaluation of subjects' views if the purchased food products are accompanied by information about their quality

As shown in Figure 5, it is apparent that 4% of respondents did not know whether the food products purchased were accompanied by information about their quality, only 35% know to a great extent and 61% to a small extent.

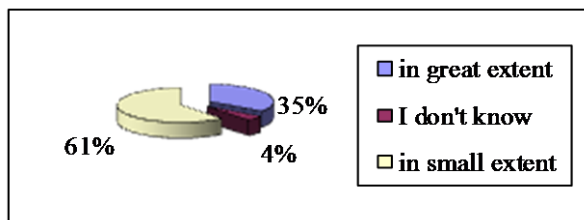


Figure 5. Distribution of the percentage of consumers according to their opinion if purchased food products are accompanied by information about their quality. Purchasing food products can also be achieved by reading the label. 4% of respondents did not know whether the food purchased is accompanied by information about their quality. Perhaps this segment of consumers is not trained to interpret information about the quality of food available on the label.

7. Evaluation of subjects' views if purchased food products correspond from the organoleptic point of view

As shown in Figure 6 it is apparent that for only 10% of subjects, the purchased food products correspond highly from the organoleptic point of view. 24% of the respondents consider that purchased food products do not correspond from the organoleptic point of view and 66% of respondents consider that purchased food products correspond much from the organoleptic point of view.

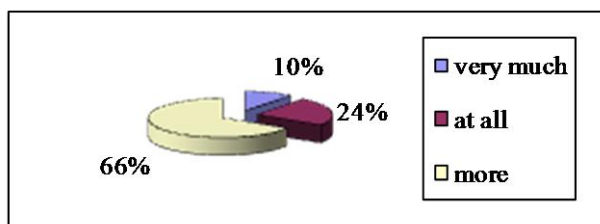


Figure 6. Distribution of the percentage of consumers according to their opinion if purchased food corresponds from the organoleptic point of view. Only 66% of the respondents consider that purchased food products correspond much from the organoleptic point of view. Considering the subjective assessment of food quality from the organoleptic point of view, increasing this percentage can be achieved in future by increasing tasting, as for example at the place of the sale.

8. Evaluation of subjects' views if they have purchased food products that did not correspond in organoleptic terms

As shown in Figure 7 it is apparent that only 19% of the subjects did not purchase food products that do not meet requirements from the organoleptic point of view. 18% of the subjects often acquired foods products that did not meet requirements from the organoleptic point of view, and 63% of the subjects rarely acquired food products that do not meet requirements from the organoleptic point of view.

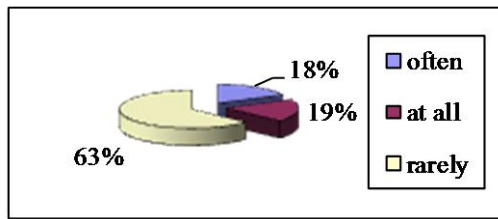


Figure 7. Distribution of the percentage of consumers according to their opinion if they bought food products that did not match in organoleptic terms. This rate of 18% for the subjects who often purchased food products that did not match from the organoleptic point of view, and 63% for the subjects who rarely purchased food products that failed to meet requirements from the organoleptic point of view reveals that in the food market there are foods that do not correspond from the organoleptic point of view, and whose percentage is very high. We mention that because only 19% of the consumers have bought food that corresponded in organoleptic terms. Probably for these consumers better information and education regarding the organoleptic properties of the food products is needed.

9. Evaluation of subjects' views if they considered themselves educated and informed when they purchased food products that did not correspond in organoleptic terms

As shown in Figure 8 it is apparent that only 22% of the respondents do not know if they are educated and informed when purchasing food products that do not correspond from the organoleptic point of view. 16% of the subjects considered to be largely educated and informed when purchasing food products that did not match in organoleptic terms and 62% of the respondents consider themselves less educated and informed when purchasing foods that do not correspond in organoleptic terms.

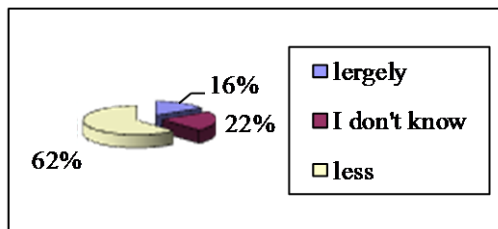


Figure 8. Distribution of the percentage of consumers according to their opinion if they considered themselves educated and informed when they purchased food products that do not correspond in organoleptic terms. Scientific literature states that "it was found that what the manufacturer considers as qualitative does not always correspond to the customer needs" (Maxim 2009, p.15), perhaps the consumer is not informed or educated enough.

10. Evaluation of subject's views if purchasing food products that did not match from the organoleptic point of view is based on the quality of consumer information

45% of the respondents believe that the acquisition of food products that did not correspond from the organoleptic point of view is based largely on the quality of information. 29% of the respondents believe that the acquisition of food products that did not meet the organoleptic point of view is based on the quality of information to a small extent. 26% of the respondents consider that they do not know if purchasing food products that did not correspond from the organoleptic point of view is based on the quality of information.

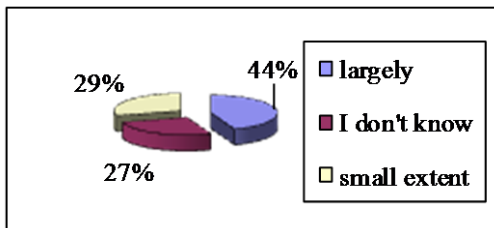


Figure 9. Distribution of consumers' percentage according to their opinion if the purchasing of food products that did not correspond in organoleptic terms is based on the quality of consumer information. Consumers probably believe that the information about quality food products must be qualitative as well.

11. Evaluation of subject's views regarding the volume of information on food packaging

54% of the respondents consider that the volume of information on food packaging is insufficient. 25% of the respondents consider that the volume of information on food packaging is sufficient, while 21% perceived it as either / or.

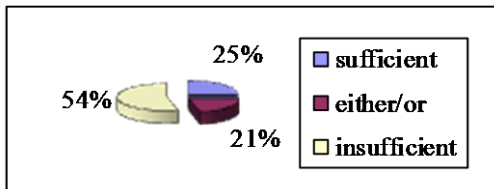


Figure 10. Distribution of the percentage of consumers according to their opinion on the volume of information on food packaging. Currently there are foods labeled with a large volume of information, but this does not send the message about the food in a right way or it is probably insufficient, from the consumers's point of view, or perhaps these consumers are not sufficiently educated to interpret such information.

12. Evaluation of subject's views regarding the quality of information on food packaging

39% of the respondents consider the quality of information on food packaging poor. 7% of the respondents consider the quality of information on food packaging very weak. Only 1% of the respondents consider the quality of information on food packaging very good. 18% of the respondents answered either/or. 35% of the respondents consider the quality of information on food packaging merely good.

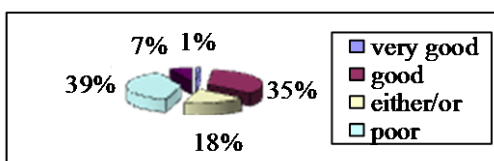


Figure 11. Distribution of consumers according to their opinion about the quality of information on food packaging. The quality of information on food packaging can help to develop in time consumers' capacity to distinguish between quality food products and non-quality ones. The 1% subjects who consider the quality of information on food packaging very good is thought to be very small, which leads to the idea that information on food packaging is not considered to be high quality.

13. Evaluation of subject's views if the information on food packaging is legibly written

65% of the respondents consider that the information on food packaging is legible to a small extent. 6% of the respondents did not know if the information on food packaging is legible. 29% of the respondents consider that the information on food packaging is largely legible.

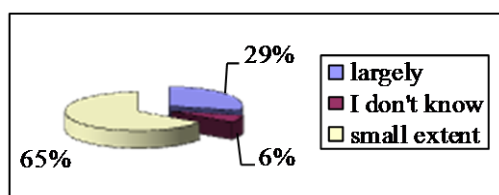


Figure 12. Distribution of the percentage of consumers according to their opinion if the information on food packaging is legible. There are foods labeled which can not be read without visual effort, regardless of the age of the consumer. Information is written, for example, with too small letters.

14. Evaluation of subject's views whether they are informed regarding the necessity to read the information on food packaging

50% of the respondents believe they are informed to a small extent about the necessity to read the information on food packaging. Only 40% of the respondents believe they are highly informed about the necessity to read the information on food packaging. 10% of the subjects said they did not know.

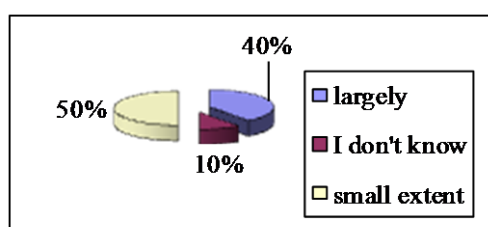


Figure 13. Distribution by percentage of consumers according to their opinion regarding the necessity to read the information on food packaging. Interpreting information from the food packaging requires extensive work in order to inform and educate consumers in this sense.

15. Evaluation of subject's views if they are educated regarding the need to interpret the information read on food packaging

46% of the respondents believe they are educated to a small extent regarding the need to interpret the information read on food packaging. Only 37% of the respondents believe they are highly educated regarding the need to interpret the information on food packaging. 17% of the respondents indicated that they do not know.

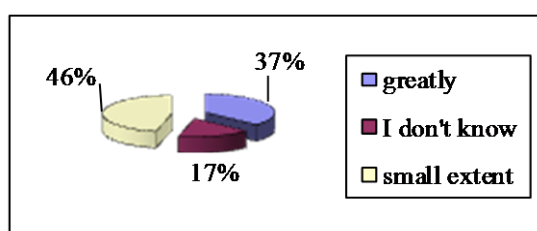


Figure 14. Distribution of the percentage of consumers according to their opinion if they are educated regarding the need to read the information on food packaging. Educating consumers, with the purpose of interpreting information on food packaging, has to be continually carried out at an individual level, by the manufacturer or seller.

Conclusions:

Purchasing quality food products has a great importance for both producers - because they are bought - and buyers - because they become acquainted with quality food products from an organoleptic point of view. The study tries to highlight whether consumers in Sibiu county know to make a difference between quality food products and non-quality ones. This was revealed by questioning subjects regarding the information received about quality food products, and if they are educated to distinguish between food quality and non-quality food products.

79 % of the respondents answered that they appreciated as good the quality of food products that they purchased. Only 9 % of the respondents believe they are highly educated and informed about the quality of food products, 29 % are not informed and educated, and only 62 % are much educated. As we mentioned, to purchase food, consumers have to be educated and informed to distinguish between quality food products and non-quality ones. Concerning this question 56 % of the respondents consider that they largely have the necessary knowledge to distinguish between quality food products and non-quality ones. 32 % of the subjects make small distinction between quality food products and non-quality ones. 4% of the respondents did not know whether the food purchased was accompanied by information about its quality. 24 % of the respondents consider that food purchased does not meet requirements from an organoleptic point of view. 18 % of the subjects have often acquired foods that did not correspond from an organoleptic point of view. 22 % of respondents do not know if they are educated and informed when they purchase food that does not correspond from an organoleptic point of view. 45 % of respondents believe that the acquisition of food that did not correspond from an organoleptic point of view is largely based on information quality. 54 % of the respondents consider that the volume of information on food packaging is insufficient. Only 1% of the respondents consider the quality of information on food packaging very good. 29 % of the respondents consider that the information on food packaging is largely legible. 40 % of the respondents believe they are informed about the need to read the information on food packaging greatly. 37 % of respondents believe that they are educated to a great extent regarding the need to read the information on food packaging.

Proposals:

Considering the above mentioned, we can specify the following points that should be considered by manufacturers, retailers and consumers:

1. Promoting the quality level of food products by each producer or seller;
2. Labeling should be clear and understood by the consumer;
3. Respecting the recipe for obtaining food by the manufacturer;
4. Appropriate labeling according to food recipe;
5. Processing food products according to a standard;
6. Informing consumers about the quality characteristics of food products, for example through additional labeling;
7. Consumers' education about the characteristics of food products quality, for example through tastings at the sale points.

Currently, it can be concluded that an informed and educated consumer can make decisions to purchase quality food products, which leads not only to increased production and trade of quality food products, but also to improved food products quality.

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