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# *Consumer perception of dual food quality based on a questionnaire survey*

**KEYWORDS:** dual quality, consumer research, questionnaire survey, food quality, information asymmetry, food labeling

## 1. SUMMARY

The dual quality of foods, i.e., the phenomenon that consumers find foods of different quality or composition in different countries under the same brand name and or with very similar packaging, has been one of the most pressing issues in the food chain in recent years. Predating the product comparative and consumer studies of the European Commission, the National Food Chain Safety Office has been investigating the issue since 2014 using several methodologies. In our article, the results of the consumer research carried out within the framework of the RCR-EFSQ CHAFEA project also supported by the EU.

The issue of dual quality is given special attention in public perception. Nearly half of Hungarian consumers have noticed specific differences between foods of the same brand, available both in Western Europe and in Hungary. Three out of five respondents said that dual quality was not acceptable, and nine out of ten said that it was important for the manufacturer to inform the consumer about dual quality on the product label if there is such a phenomenon. Therefore, there is a clear need to address this issue at an official level, not only at a legal level as a result of the amendment of the directive, but also in terms of consumer information. Based on the opinion of the respondents, any differences should be clearly indicated on the packaging of the given product. The consumer opinions revealed in our research can provide guidance for the design of future product comparative studies, as well as for the consumer-friendly handling of the situation by manufacturers.

## 2. Literature review

### 2.1. Background

Although EU legislation does not prohibit manufacturers from marketing products with different compositions in different geographical areas, this type of practice is still questionable, as it can be misleading for consumers. Attention to the existence of the phenomenon of dual quality was drawn by the results of a study published in 2011 by the Slovakian Consumers' Association. During the study, samples of

products from different countries (Germany, Austria, the Czech Republic, Poland, Slovakia, Hungary, Romania and Bulgaria), marketed in several member states under the same brand name, were compared. The study found that, compared to foods marketed in Western Europe, in certain respects, such as composition or organoleptic properties, the ones marketed in Eastern Europe were different [1]. Based on the presented data, the leaders of the countries of the Central and Eastern European region took joint action and requested the European Union to investigate this phenomenon. At the same time, several

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product comparative studies were carried out in the above-mentioned countries, some of which confirmed the existence of dual quality, while in other countries no differences were found between the products compared [2]. As a result, Jean-Claude Juncker, then president of the European Commission, condemned the practice of dual quality in his 2017 annual report, saying that there could be no “second-class consumers” within the European Union [3]. To investigate the situation, special funding was provided by the European Union to the Joint Research Center (JRC) to develop a common methodology, as well as for further research in the member states and raising consumer awareness. According to the report of the JRC, although there were differences between the countries, no geographical pattern could be observed in these differences [4]. In June 2017, the European Commission published its guidance regarding more efficient handling of unfair practices by member states [5], and at the community level the amendment of the Unfair Commercial Practices Directive 2005/29/EC (UCPD) was proposed. The proposal was discussed as part of the New Deal for Consumers by the Working Group of the Council on Consumer Protection and Information, and it was adopted in April 2019. Based on this, the use of dual quality in a way that misleads consumers is unfair, however, it takes into account that there may be objective reasons for tolerating the existence of dual quality: national standards, availability or seasonality of raw materials, voluntary commitments, reformulations for foods that support a healthy lifestyle more than usual (such as reduced sugar or salt content) [6], [7], [8]. However, the practical applicability of the dual quality element of the guideline requires further research, an important part of which is learning about consumer preferences [9].

## 2.2. Dual quality in Hungary

Product comparative studies were conducted in three waves by the National Food Chain Safety Office (NFCSO), the authority responsible for consumer protection in the field of food chain safety and food quality. The first study took place in 2014. Based on the chemical and organoleptic results of this study, differences were registered for 10 of the 20 product pairs (Hungarian and Austrian) analyzed, with 7 cases where the Austrian product was found to be of better quality and 3 cases where the Hungarian [10]. Subsequently, sampling was performed in the spring of 2017 (96 product pairs) and the summer of 2017 (39 typically seasonal product pairs). In the spring study, products of the same brand, appearance and composition were compared in 51 cases, but organoleptic differences were still found in 27 cases. In the case of 25 product pairs, the brand and the appearance were the same, but there was already a noticeable difference in their composition based on the packaging label. During the organoleptic test, differences were found in 19 of the 25 cases in this category. For the other product pairs, the products

were not 100% identical, they were only marketed with similar appearance or names in the different countries. In the last case, both of organoleptic *or* compositional, or both of organoleptic *and* compositional differences were observed in the case of 19 of the 20 product pairs [11]. In the summer of the same year, compositional or organoleptic differences were recorded for almost one third of the 39 product pairs examined [12].

## 2.3. Consumer research in the field of food quality

While plenty of product comparative studies have been carried out and presented on the instructions of the Commission since becoming aware of dual quality, consumer opinions regarding dual quality have only been surveyed in a few member states.

In Slovakia, a consumer survey was conducted in 2018 involving 919 people on the perception of dual quality. According to the results, 82% of those who completed the questionnaires issued objected to the manufacturing practice resulting in dual quality. Almost 43% of the respondents have already well experienced personally the differences between products available both in Slovakia and abroad, and nearly 30% knew someone who had such experience. Differences were most often observed in the case of fish, meat and meat products, detergents and confectionery [13].

A consumer survey was conducted by the Czech food chain supervisory authority in 2016, involving 1,019 people. According to the survey, 88% of consumers are bothered and even offended by the fact that there is a difference in the composition of foods available in Western Europe compared to foods available in the Czech Republic. Only 4% of the respondents stated the opposite [14].

In addition to the two surveys mentioned above, no other scientifically peer-reviewed publications are available in the international literature in this field.

In 2017, NFCSO was the first in Hungary to conduct a consumer survey on the perception of dual quality, involving 1,001 people, which revealed that this is also an issue of concern for the Hungarian people. The results of the survey showed that every second Hungarian citizen had already experienced differences in the quality of foods of the same brand, available both in Western Europe and Hungary. Respondents cited lot of examples from each product category, but mostly reported significant differences for confectionery products, while also mentioning frequently dairy products and soft drinks [15]. In the course of our research, we continued this work in order to get a more detailed picture of the opinion and expectations of the population on this topic for the treatment of dual quality in Hungary.

### 3. Research methodology

The data on which the analyses are based are derived from a questionnaire consumer survey using a quantitative methodology. Personal interviews were conducted between April 4 and 24, 2019, by questioning a total of 1,003 people. The questionnaire included both open-ended and closed-ended questions, and a 5-point Likert scale was used for attitude-type questions. The sample can be considered representative of the entire adult Hungarian population in terms of age, gender and place of residence (NUTS 2 planning and statistical regions) based on the 2016 microcensus data of the Hungarian Central Statistical Office (KSH) [16]. Statistical analysis of the data was performed using the IBM SPSS Statistics 22.0 software package.

### 4. Results

A significant proportion of respondents (47.30%) have already noticed specific differences between foods of the same brand available in Western Europe and Hungary, however, 14.37% of the respondents reported that they had not experienced any difference when they had a chance to compare products available in different countries. There was also a significant proportion of respondents (38.33%) who had no such experience at all (**Figure 1**).

It was also examined which product categories are typically affected by dual quality, based on consumer experience. Similarly to the results of the previous consumer survey [15], the most frequently mentioned product category was chocolate and other sweets (mentioned by 240 people). This was followed by the category of milk and dairy products with 82 mentions. Interestingly, although our question was about foods, based on the frequency of mentions, the category of meat and meat products shares third place with the category of non-food products, such as detergents and fabric softeners (80 mentions each) (**Table 1**).

In cases where differences were mentioned by consumers for specific identical products available both abroad and in Hungary, foreign-made products proved to be better in 95.71% of the cases, based on the respondents' perception (**Table 2**).

According to 59.84% of the respondents, it is not acceptable for a manufacturer to market different quality foods under the same brand name in different countries, while slightly more than one third (37.28%) finds this acceptable only if the difference is clearly indicated by the manufacturers. A negligible portion of the respondents (2.88%) represents a permissive position in this regard, and according to them, this phenomenon is natural (**Figure 2**).

In order to understand the expectations for fair entrepreneurs, it was surveyed which manufacturing practices were found misleading by consumers. Re-

spondents found it clearly misleading (96.24%) when different quality foods are marketed in two countries under the same brand name and with identical packaging. According to many people (65.64%) it can also be misleading when foods of different quality are marketed under different brand names but in very similar packaging (**Figure 3**).

Quality means something different to everyone, a statement which is increasingly true in the case of foods. With the following question, we tried to get a picture of which factors, according to consumers, can lead to the biggest differences in quality. Based on the results, a pronounced order could not be established, since all the characteristics in the questionnaire received high average scores: difference in taste (4.42), difference in the list of ingredients (4.33), difference in the amount of ingredients (4.28), difference in texture (4.27), difference in color (4.06), which led to the conclusion that all quality factors are relevant to consumers (**Figure 4**).

Consumers expect manufacturers to indicate on the label when they market foods of different quality under the same brand name in different countries (**Figure 5**). According to them, the most appropriate solution would be an exact description on the packaging (4.35), followed by the combined use of the logo and the label (3.99). The combined use was found to be much more appropriate than either the label (3.68) or the logo (3.56) alone. It may also be an acceptable method to have a warning on the product and a detailed description of the difference available on the internet (3.94). Typically, the solution where there would be no label on the packaging and the information would only be available on the internet was rejected (1.84) (**Figure 6**).

### 5. Conclusions

An important finding of this research is that the vast majority of respondents finds it misleading when manufacturers market foods of different quality under different brand names but in very similar packaging in different countries. In this regard, consumers urge state action and expect clear information on the product labels. At the same time, technical aspects (e.g., geographically diversified sourcing and production systems, compliance with national regulations or documented differences in consumer tastes) that lead to different quality, but are clearly not intended to discriminate against consumers in individual countries, should be appreciated. Careful practical regulations are justified by these aspects. As part of this, objective authority investigations are needed, the results of which should be supplemented by professional and consumer communication on the subject.

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