“How do consumers perceive the dual quality of goods and its economic aspects in the European Union? An empirical study”

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HOW DO CONSUMERS PERCEIVE THE DUAL QUALITY OF GOODS AND ITS ECONOMIC ASPECTS IN THE EUROPEAN UNION?
AN EMPIRICAL STUDY

Abstract
Dual quality goods have been present in Europe for over 30 years. But only recently this problem has become current. More and more EU citizens complain about its presence in the united European market. In several countries, product testing, as well as population opinions, were conducted, but the results were not uniform. The European Commission itself acknowledged the existence of dual quality and began to address it. It has developed a common testing methodology and is also preparing legislative changes. In this respect, the examination of the situation in Slovakia as one of the EU countries is up to date. The aim of this research is to examine the opinions of Slovak consumers on the dual quality of daily consumer goods in the EU and its economic aspects, to compare them with the results from abroad and to formulate conclusions and recommendations. The survey used a questionnaire method, which examined the opinions of Slovak consumers on a sample of 919 respondents. Subsequently, the hypotheses were tested by the binomial test and Pearson correlation coefficient. The study provides an overview of the results of product testing carried out in Slovakia and abroad, as well as the results of a questionnaire survey of the opinions of Slovak consumers and their comparison with abroad. In Slovakia and the Czech Republic, more than 80% of respondents disagree with the existence of dual quality. The results of the study support the demand of Central and Eastern European countries for dual quality in the EU to be banned and eliminated.

Keywords
dual quality, daily use goods, European Union

JEL Classification
Q18, M38, M31

INTRODUCTION

After the transformation of the Central and Eastern European economies in 1989, the people of the former Soviet bloc countries began to notice a strange phenomenon. Although they have been marketed by worldwide brands, which have been missing on their shelves until then, their quality has lagged behind the same products purchased abroad (Pratt, 2007; Ichijo & Ranta, 2016). This phenomenon was first noticed in cosmetic products (Čimová, 2017b), since those bought abroad had a better fragrance that lasted longer, had different consistency, color, and detergents, which at first glance had a different composition (less color – in effective – particles) and other laundry washing effects. Later, residents of former Soviet countries began to notice that some characteristics of particular products, as e.g. soft drinks, coffee or fish sticks, are different in their country comparing to products sold with the same brand and with the same or very similar packaging in other European countries (European Commission, 2019b). The problem is...
dual quality, especially for food. Factors of dietetic risk are recognized as main causes of serious sickness and even mortality globally, resulting in important care to interventions to support healthy eating (Kirkpatrick, 2019).

These practices have been revealed in several countries by tests that have purchased the same products from the same manufacturers at approximately the same prices in different countries. The results showed that these products had different compositions and properties in different countries. These practices were subsequently confirmed by several manufacturers, along with the reasons why they produce the same products with different compositions. Mostly they refer to local differences in consumer behavior in terms of different taste preferences or use of goods (Aktuality.sk, 2017).

Consequently, the interest was also passed on to consumers. In the Czech Republic and Poland, surveys of consumers’ opinions on these practices have been carried out: it has been examined whether the people know about these practices, whether they have personal experience with them and what their opinions on them are – whether or not they are.

In Slovakia, several tests were carried out comparing products purchased at home and abroad. The Slovak Minister of Agriculture – Gabriela Matečná – is involved in this issue and claims that the problem of dual food quality concerns up to one third of the EU countries (Ministry of Agriculture and Rural Development of the SR, 2017c). In Slovakia, an international website was also published to inform about the found practices of producers (Czech Television, 2017). However, no one asked customers about their opinions on the matter. Therefore, there was a lack of consumer opinion research in this area. The first research in the Slovak Republic was conducted in 2018 on a sample of 919 respondents through a questionnaire method conducted by Matej Bel University in Banská Bystrica. Research has identified respondents’ awareness of dual quality practices in Europe, their views on these practices and also the view on how to deal with them. In the research, respondents could comment on the ethical, legislative and economic aspects of the problem of double quality of daily consumption goods. This paper presents an examination of the opinions of consumers of double quality problem and its economic aspects in the EU.

The study has its limitations. The issue of dual quality of goods was first raised by the countries of Central and Eastern Europe, a.k.a. new member countries. The first tests were carried out in the Czech Republic, followed by tests in Slovakia, Hungary, and Poland. This is one of the reasons why the information on dual quality issues comes from these countries. Following pressure from representatives of the new member states and complaints from consumers from these countries, the European Commission acknowledged the existence of dual quality, developed a uniform methodology and carried out testing of a common basket of products. Our study also brings this information.

1. LITERATURE REVIEW

The first test to confirm the suspicion of dual quality of goods within the European Union was carried out by the Association of Slovak Consumers in 2011 (Sudor, 2012). In six countries namely, Germany, Austria, Slovakia, Czech Republic, Poland, Hungary, Bulgaria and Romania, they bought products from the same global brands: e.g. Coca-Cola, Milka, Kotani, Jacobs and others. The test was conducted by the State Food and Veterinary Administration of Slovakia.

These results confirmed the suspicion that the same producer’s products sold on the Western and Eastern European markets did not have the same characteristics or the same composition, resulting in different quality of these products. Based on the test, several foods such as coffee, soft-drinks, chocolate and seasoning of the identical brand traded in Slovakia and in a foreign country may not have the same taste, composition or weight (Čimová, 2011). On the basis of the Slovak Consumers Association, the quality of the identical products was mostly poorer in the “new EU
member states”, and the quality of goods bought in shops in Germany and Austria was higher (Euraktiv.sk, 2011).

Coca-Cola company has its own factory in each of the countries tested. However, each Coca-Cola tested had different sugar content and various sugar compositions in the test. Consumers cannot rely on the same composition in all countries, which can be a problem especially if they are sensitive to some foods. The brand’s drink contained only sugar in four countries, and in the other four, including Slovakia, it was half the cheaper isoglucose. And while cheaper raw materials were used in production, the price remained comparable to that of more expensive raw materials.

Kotányi company packs spices for all countries in one single plant, but the content of the products did not match the test. Black pepper for Hungary, Slovakia and Austria was damper than recommended by the standard. Black pepper for Hungary contained too much crushed and damaged grains. Also, the grammage of different countries – 17g, 20g or 24g at the same price – was diverse. Thus, some European consumers received fewer raw materials for their money, which in addition did not meet the standards prescribed equally across the EU.

German coffee packaging of Jacobs Kronung contained gently and lightly roasted regular grains, the Polish had dark and irregular. In other countries, this coffee could only be bought ground. So, a part of European consumers paid the same price but for a lower quality food. Milka chocolate had the same quality in each of the countries tested. But despite the same composition, only chocolate in Germany and Austria had a 100 percent guarantee of using the milk from the Alps. The other countries did not have this guarantee on the packaging. However, a customer accustomed to buying this chocolate may not notice such a difference.

In 2016, a similar test was organized by the Ministry of Agriculture of the Slovak Republic (Ministry of Agriculture and Rural Development of the Slovak Republic, 2017a). This test compared 22 identical products bought in Slovakia and Austria. It focused on different types of products: dairy products, meat and fish, chocolate and pastries, soft drinks, coffee and tea, herbs and spices. Only nine products of international brands had the same composition (Čimová, 2017a). Especially non-alcoholic beverages were the worst – drinks sold in Slovakia contained more flavors and preservatives (for example, the Austrian drink Rewe in Austria had orange juice, while the drink was bought in Bratislava did not contain a gram of juice, but it was filled with various flavors and flavor stabilizers), spices (products intended for Slovak consumers contained more moisture, a larger proportion of crushed seeds and a smaller proportion of natural dyes), tea (pockets were of less weight and less intense flavor and smell), mozzarella cheese (in Slovakia it contained lower-fat cheese weight of solids), meat products (lower percentage of meat in Slovakia). Slovakian Coca-Cola Sugar was sweetened with glucose-fructose syrup, and in butter cookies there was palm oil instead of butter (Omachel, 2017). Thus, in more than half of the cases, Slovak consumers pay for a product with a lower weight or lower quality, respectively cheaper raw materials the same price as Austrian consumers for a higher quality product.

Similar testings in other countries were also carried out. In the Czech Republic, 21 products were purchased in five countries – in the Czech Republic, Slovakia, Hungary, Germany and Austria – and only three products were the same (Leinert, 2017). For example, Iglo’s fish fingers had only 50% of meat in the Czech Republic and the same product in Germany had almost 64% of the meat, with both products being produced in the same plant in Germany. Thus, in the Czech Republic, consumers pay a comparable price than in Germany not for fish meat, but for water. Another example showed that Czech-sold Sprite contained more aspartame than in Germany, where Coca-Cola sold a version of the soda with more real sugar (Politico, 2019). Significant differences were also found during testing with Persil washing powder. The powder sold in Germany and Austria contains 11.3 grams of active ingredient compared to the same powder sold in Central and Eastern Europe (9.7 grams in the Czech Republic, 9.5 grams in Slovakia and 9.3 grams in Hungary). The powder detergent manufacturer Persil, Henkel, also commented on these results. The company said that product differences stem from different consumer habits in different countries (Benešová et al., 2017). As consum-
ers in the Czech Republic and Slovakia use water with higher temperature for washing, the washing powder does not need a larger amount of active ingredient to achieve comparable results with Germany or Austria. However, when Czech and Slovak consumers buy washing powder intended for their markets, they need to use more of it to achieve a comparable result than in Germany, so they must buy it more often.

The different quality of the products was also recognized by the Dr. Oetker. Frozen pizza for the Austrian market contained less pizzas and more side dishes (ham, mozzarella cheese, tomatoes) than the same pizza for the Slovak market (Lacen, 2018). The producer removed the double pizza and imported the same pizza to Slovakia as in other countries, which was however also accompanied by an increase in price.

In Hungary, 96 products were compared. The State Veterinary and Food Administration did not find numerous violations of the law, but a significant violation of ethical principles. Many tested products did not have the same composition as identical products sold at a comparable price in the West (Ministry of Foreign Affairs, 2017).

Two food tests were conducted in Poland in 2017 and 2018 by the Office for the Protection of Competition and Consumers. All 104 identical products (chips, soft drinks, juices, cheese, yoghurt, tea, coffee, frozen pizza, ketchup, chocolate, frozen fish and meat products) were purchased in the tests by the same brand in Poland and Germany. The test revealed 12 products that had different characteristics. In two cases the products were better in Germany than in Poland. The pack of chips in Poland was 25g less for the same price, while the German chips were fried in sunflower oil, the Polish ones were fried in palm oil. While both cheeses purchased in Germany and Poland had the same logo, packaging and 100% natural composition guarantee, the cheese from Germany contained five natural ingredients and the cheese from Poland also contained milk powder, acidity regulator and natural flavorings. Polish chocolate contained fewer nuts than German. In the ice tea produced for Poland, there was less tea extract than that produced for Germany, and also contained a different sugar composition (Breźnicky, 2018). As shown by the test, consumers in Poland also receive a smaller weight of food for a comparable price or a food made from cheaper raw materials than in Germany. However, the Office of Competition and Consumer Protection stated that this is too small a sample to be judged accordingly (Office of Competition and Consumer Protection, 2018).

They also have experience in Poland that washing powders bought abroad in Western Europe have a better effect than those purchased in Poland. There are even shops specializing in the sale of “chemistry” imported from Germany (Kaczmarczyk, 2016). Many Polish consumers are convinced that German chemicals are better than the same produced in Poland, such powders, capsules, gels and stain removers, dishwasher tabs and also detersgents and cosmetics. This is confirmed by not only hundreds of shops and bazaar stands with chemical products from the West, but also research carried out recently by PMR Consulting & Research. While in Poland these trades with German “chemistry” are official, there is only such an unofficial sale in Slovakia. It is mainly made by people who work or often travel abroad, who bring foreign products to Slovakia, where they then unofficially sell it. The state is thus losing part of its incomes in the form of taxes.

On the other hand, producers defend and explain that the different composition of products is due to other consumer behavior habits, other taste preferences for food, and international regulations (Welz, 2012; Domaniński & Bryła, 2013; May, 2013; Bonadonna, Macar, Peira, & Giachino, 2017). However, even if we admit the different taste preferences of individual countries (national dishes which are not popular in other countries), it is difficult to explain the greater amount of sugar substitution, more salt or other preservatives in food in Central and Eastern European countries versus Western countries. However, different flavors and habits can be satisfied with healthy variations without unnecessary unhealthy ingredients (Wszoborowska, 2019). Especially if they are not different products for different European markets differing in flavor and composition, but they are products that look identical but different in composition. Thus, in some countries, consumers (and most of them in Central and Eastern Europe,
where incomes are lower compared to Western European countries) receive a smaller amount of products at comparable prices for their incomes. Products made from cheaper raw materials, or with such a composition or rework that they are forced to buy the product more often.

In the case of the expansion of EU daily consumed products into Central and Eastern Europe, consumer attitudes have been investigated in various countries (Ferrandi, 2012; Bryła, 2015; Velčovská & Del Chiappa, 2015). In the Czech Republic, research from the years 2005 and 2006 have shown that households are mainly influenced by the quality and habit of buying a particular product (Hes, 2010). Just in those habits, the dual quality is problematic: the consumer often purchases from habit, does not search for product information, does not read the packaging, and thus may not notice a change in the composition of the product that may occur. Other research in the Czech Republic has shown that Czech consumers are interested in the issue of dual quality and perceive different food characteristics as injustice and manipulation by brands (Dtest, 2016). According to the Czech State Veterinary and Food Inspection, almost 90% of Czech consumers are not satisfied with the lower quality of food sold in the Czech Republic compared to Western Europe. These foods often have identical packaging and logo and a similar price but different content (May, 2016).

In Poland, research was also conducted on the perception of dual quality in Europe. According to the results, Poles do not have sophisticated views about the double quality of food – 71 percent people examined by Kantar Public on behalf of Office of Competition and Consumer Protection admitted that they did not buy the same brand in Poland and abroad. Almost 86 percent has not heard of the concept of dual quality or does not know what it means. Nevertheless, every third person believes that there are differences in quality (Forbes, 2019).

Research of specific customer behavior in Slovakia about the dual quality of goods in the EU has been lacking in the past. However, there is a long-term demand for healthy, fresh, safe and convenient foods (Morales-de la Peña, 2019). Back in 2016 the Post bank analyzed purchasing behavior of Slovak inhabitants (Kušnírová, 2016). According to the analysis, Slovak buyers are concerned in higher quality foods and in western districts of Slovakia they are willing to pay also higher expense for them. It is the same situation with sport shoes and equipment.

As shown by GfK Slovakia’s research, Slovak citizens have long favored higher food quality over lower prices. Already in 2008, as part of research on a representative sample of 1,000 participants, the majority of respondents reported the decisive preference for the purchase of food products as the quality and freshness of food (GfK, 2008). Following research on a representative sample of 1,000 asked persons in 2015 also shows that consumers select the freshness and quality when buying foodstuff (GfK, 2015). Other research, also on a representative sample of 1,000 respondents, was led by GfK in March 2017. As results shown, almost 16% of respondents purchase products abroad because they think foreign products are better (GfK, 2017). In addition, a representative nationwide research carried out by the Ministry of Agriculture in 2017 shows that the quality and origin of Slovakia are the two most important factors according to which consumers decide to buy food, the price as the main economic factor is in third place. According to this research, the main source of product information is consumer packaging (Ministry of Agriculture and Rural Development of the SR, 2017b).

The latest product testing in relation to dual quality was carried out by the European Commission itself. The study followed tests of food products across the EU using the same methodology, in order to better understand the dual quality of food products in the EU. It analyzed nearly 1,400 food products in 19 EU countries: Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Spain and the Netherlands during the period November – December 2018, which submitted information on 113 branded products and 15 private label products of retail chains (Ministry of Industry and Trade of Czech Republic, 2019). The tests involved the composition of a common basket of products which are marketed in most Member States and included chemical and sensory
testing (Eubusiness, 2019). The study showed that 9% of the compared products differed in composition, although the front-of-pack was identical. A further 22% of products with a different composition had a similar front-of-pack. The study did not show a consistent geographical pattern (Just-food, 2019). Based on the new methodology developed, national competent authorities will now be able to perform the case by case analysis required to determine misleading practices prohibited under EU consumer law (European Commision, 2019a).

It is clear from the information provided above that the test results differ significantly. The results of testing vary from one Central European country to another, and some even show that in Western European countries the quality may be lower. It is therefore right that the European Commission has come up with a single methodology that can lead to comparable results. According to this research, there is no geographical pattern of dual quality, which is also confirmed by testing from Poland. In any case, the dual quality that is hidden behind the same or very similar packaging and about the same price should not exist on European market companies and European consumers should not be discriminated against in this way.

All these information not only emphasizes the importance of dual quality issue for people throughout Europe, but also describes its implications for whole countries in terms of their sustainable development in accordance with responsible practices of manufacturers in global business environment (Veselovská, 2013; Islam et al., 2017; Veselovská, 2017; Ali, 2018; Závadská et al., 2016; Veselovská et al., 2018; Bera & Sadowska, 2020).

2. METHOD

Main aim of this research is to examine the opinions of Slovak consumers on the dual quality of daily consumption goods in the EU and its economic aspects, to compare them with the results from abroad and to formulate conclusions and recommendations. Partial aims are to present evidence on existence of dual quality of goods and its economic aspects and to examine how dual quality influences different consumers ad to create the preferred dual quality solutions according to the different importance of its economic consequences for consumers.

In order to achieve the goals, we have set the following hypotheses:

\[ H_0: \text{More than 25\% of consumers consider the dual quality primarily as economic problem.} \]

\[ H_1: \text{There is an indirect dependence between household income and level of resentment towards existence of dual quality.} \]

\[ H_2: \text{The age of customer influences their perception of dual quality as economic problem.} \]

\[ H_3: \text{More than 60\% of consumers would prefer legislative ban on existence of dual quality of goods.} \]

Data were collected via national survey. This survey of the opinions of Slovak consumers focused directly on the dual quality of daily consumption goods. This research is part of project which took place in Slovak republic in period of September–December 2018 on a sample of 919 respondents. This sample file consists of more women (66.35\%) than men since the main selection criterion for participation in this research was the fact that interviewed person had to be the main buyer of daily consumption goods in their corresponding household. Women have been the focus of most food purchasing research because they are primarily responsible for household food purchasing (Flagg et al., 2018) and preparation (Crane, 2019) and are usually responsible also for purchases of other goods (Carlson et al., 2018).

Furthermore, Pearson correlation coefficients were used to analyze selected relationship and to discover valid influences among examined factors and to verify hypotheses.

Binomial test was used to verify hypotheses \( H_0, H_3 \). The binomial distribution formula was used to calculate the probability of getting a desired result for binomial distributions.

Respondents were structured by various factors. In accordance with research aims the most important factor were the economic aspects main
the monthly income of entire household. This criterion is extremely important to evaluate since incomes are the main decisive factor of expenditures on consumption. Table 1 provides data on this matter.

Table 1. Sample file structure based on income

| Household income | Percentage of consumers |
|------------------|-------------------------|
| 600 € or less     | 8.83%                   |
| 601-800 €         | 9.07%                   |
| 801-1,000 €       | 16.02%                  |
| 1,001-1,200 €     | 16.02%                  |
| 1,201-1,400 €     | 12.25%                  |
| 1,401-1,600 €     | 11.54%                  |
| 1,601-1,800 €     | 8.24%                   |
| 1,801-2,000 €     | 6.71%                   |
| Over 2,000 €      | 11.31%                  |

3. RESULTS AND DISCUSSION

The main aim of this research study is to examine the opinions of Slovak consumers on the dual quality of daily consumption goods in the EU and its economic aspects, to compare them with the results from abroad and to formulate conclusions and recommendations. Therefore, the firstly focus of empirical research was on awareness of dual quality among customers. As research suggests, up to 89% of respondents have already heard of the problem of dual quality of daily consumption goods, and up to 75% of respondents consider this problem important to their lives. As many as 82% of respondents are bothered by the dual quality as a practice for manufacturers. Most often they have heard about the problem of dual quality in relation to meat and meat products, washing powders and sweets. Almost 43% of respondents even have personal experience of dual quality goods and nearly 30% know an acquaintance that has such experience. Examples provided by respondents are also analyzed.

According to our research, on average 25.58% of respondents consider the problem of dual quality of daily consumption goods economic. This number is slightly higher in a group of customers older than 66 years (35.29%) and lower for customers in age group between 46 and 65 years. Furthermore, there are no significant differences between genders since 19.22% of men and 22.67% of women perceive dual quality as economic problem. However, there are interesting differences in perception of dual quality as economic issue in terms of living conditions of customers. People living in villages and small settlements are more likely to focus on economic aspects (23.15%) than people living in cities (19.85%). Hypothesis \( H_0 \) focused on examining this issue since it was assumed that more than 25% of consumers consider the dual quality primarily as economic problem. Binomial test was used to verify this hypothesis. The results confirmed the primary assumption and therefore, it can be concluded that more than a quarter of customers definitely focus primarily on economic aspects of dual quality and consider its legal and/or ethical ramifications with much less importance, even though there are differences in opinions of various segments of customers.

These differences may exist for several reasons. Firstly, it is that if the same product purchased abroad for the same price contains less basic raw material or active substance, the customer in Slovakia will get less value for his money than the customer e.g. in Germany. For instance it is the case of detergents and fabric softeners. A customer in Slovakia has to use more money to achieve the same result as a customer in Germany, so they must buy this product more often and consequently spend more of their household’s income. In addition, as Henkel has admitted, their detergent compositions are adapted to the habits of Central and Eastern Europeans who are used to washing at higher temperatures, thus giving them less active substance. As a result, a customer in Central and Eastern Europe needs to use more powder for washing, which will make them less able to buy it since they are forced to buy it more often than a customer in Western Europe, and in addition, they must spend more money on the energy used to heat the water when washing. Therefore, one wash is much more expensive for them than for a customer e.g. in Austria. The second reason is the level of incomes in each country. Table 2 illustrates the average wage level in selected EU countries, where the composition and characteristics of products are usually compared in terms of discovering the dual quality.
Table 2. Wages in selected countries in the EU

| Country              | Average wage |
|----------------------|--------------|
| Germany              | 3,775 €      |
| Austria              | 3,632 €      |
| Slovak Republic      | 1,013 €      |
| Czech Republic       | 1,141 €      |
| Poland               | 885 €        |
| Hungary              | 823 €        |

According to the data, the population earns less in the countries of Central and Eastern Europe, but as we have shown in the example of washing powders, they spend more money on the same products than Westerners in the EU who even have higher incomes.

This issue also affects other products. Clothing and footwear imported to Central and Eastern Europe have different designs to those imported to Western countries. Clothing and footwear designed for the East of Europe have different design and sewing, seams are not suitable, the garment will begin to “twist” and flap over time. Garments are made of substances that are less dense, so they wear out more when used and washed. Bonding is used instead of sewing to make shoes, which will not last for long. All this leads to the fact that customers in Central and Eastern Europe have to buy their clothes for a comparable price more often than customers in Western Europe do.

It is also possible to apply this same login to the problem of food. For example, if meat product in Central and Eastern Europe consists of less meat than in the Western EU, then customers from these countries spend their incomes mostly on auxiliary and preservative substances rather than quality meat as they do in the Western EU. By analogy, this can be applied to other foods: while the West pays for milk, the East also spends on water by which the milk is diluted. Western country customers pay for fish, those from eastern countries pay for the water in which the fish is frozen. While the western part of Europe pays for cocoa powder in chocolate, Eastern pays a comparable price for less quality cocoa butter and soy. While in Western Europe, the customer pays for non-alcoholic beverages, in Eastern Europe, he pays a comparable price for a cheaper sugar substitute. While in the western part of the EU customers pay for coffee, tea and spices in a relatively full state, in the eastern part of the EU they pay for grit, process residues, moisture, added ingredients and artificial flavors. These are the examples provide by various customers with personal experiences with dual quality practices.

Furthermore, the research also focused on the resentment customers feel towards economic consequences of dual quality. According to data provided by customers in Slovak republic the level of resentment towards dual quality of daily consumption goods is influenced by household income. Table 3 presents this information in detail.

Table 3. Level of resentment towards dual quality structured by income

| Household income | Very high | High | Undecided | Low | Very low |
|------------------|-----------|------|-----------|-----|----------|
| 600 € or less    | 40.00%    | 36.00%| 17.33%    | 5.33%| 1.33%    |
| 601-800 €        | 50.65%    | 31.17%| 15.58%    | 2.60%| 0.00%    |
| 801-1,000 €      | 35.29%    | 44.85%| 17.65%    | 1.47%| 0.74%    |
| 1,001-1,200 €    | 47.79%    | 33.82%| 16.18%    | 2.21%| 0.00%    |
| 1,201-1,400 €    | 40.38%    | 37.50%| 18.27%    | 0.96%| 2.88%    |
| 1,401-1,600 €    | 43.88%    | 34.69%| 10.20%    | 10.20%| 1.02%    |
| 1,601-1,800 €    | 47.14%    | 41.43%| 10.00%    | 1.43%| 0.00%    |
| 1,801-2,000 €    | 50.88%    | 36.84%| 8.77%     | 3.51%| 0.00%    |
| Over 2,000 €     | 40.63%    | 50.00%| 7.29%     | 2.08%| 0.00%    |

The hypothesis $H_1$ assumed that there is an indirect dependence between household income and level of resentment towards existence of dual quality. Pearson correlation test was used to examine this relationship and verify the hypothesis. The results of test in fact confirm the assumption. Therefore, it is possible to conclude that people with lower incomes are more likely to feel stronger resentment towards producers who use dual quality of their products.

The hypothesis $H_2$ focused on another possible dependence between other factors. The assumption was that the age of customer influences their perception of dual quality as economic problem. Table 4 provides corresponding data. The highest rate of resentment towards dual quality exists in customers over 66 years (52.94%) which may suggest that older customers are more likely to feel strong negative feelings towards such practices of producers, however further examination is necessary in or-
order to confirm this possible conclusion. Moreover, the results on matter of perception of dual quality as economic problem had to be structured by age of customers. Consequently, Pearson correlation test was used to test hypothesis H2, however its results were not conclusive enough to confirm this hypothesis with statistical significance. Therefore, the age of customers does not significantly influence their perception of dual quality as economic problem.

Table 4. Level of resentment towards dual quality structured by age

| Age group | Very high | High | Undecided | Low | Very low |
|-----------|-----------|------|-----------|-----|----------|
| 19-25     | 42.29%    | 38.77% | 15.86%    | 0.44% | 2.64%    |
| 26-45     | 44.30%    | 40.25% | 12.66%    | 2.53% | 0.25%    |
| 46-65     | 42.81%    | 38.49% | 12.95%    | 5.40% | 0.36%    |
| Over 66   | 52.94%    | 17.65% | 11.76%    | 11.76% | 5.88%    |

In our research, we have also focused on what solution respondents would prefer. Most respondents stated that dual quality should not exist and producers should produce their products uniformly across the European Union market. They do not oppose different foods taking into account the country’s specific tastes and habits. Food is an important medium through which national identity can be experienced in everyday consumption. Traditional foods especially play an important role in authenticating an ethnic or national culture (Bardone & Spalvena, 2019; Parasecoli, 2017). However, these products should be unique, designed for the country and quality. It should not happen that the same product can be bought abroad in the same or very similar packaging with a different composition.

Several respondents also stated that such practices should be banned from national and European Commission levels. According to respondents, individuals do not have the strength or the ability to defend themselves as the governments do. The government should care that its people receive good quality goods that are healthy and economically advantageous, leaving the population with more money for further consumption (Šramková, 2015). The government should also be concerned that its residents spend their incomes in its economy and not in the economy of a foreign state where they go to buy certain products with a more favorable composition. Moreover, the boycott of already produced dual composition and dual quality goods generates waste, which is another major problem of the present, especially in relation to food (Aschemann-Witzel, 2018).

The problem is also that the countries of Central and Eastern Europe are unable to unite themselves on the issue of the enforcement of the dual quality ban and thus weaken their position in the negotiations with the rest of the EU. While the European Commission has admitted that there are first and second category consumers in the EU (European Commission 2017), centralize resolutions on its part have been rejected for a long time. In the second half of 2018, Austria as EU Presidency even refused to include the issue of double quality in the forthcoming Consumer Protection Legislation, where it would be characterized as an unfair practice (TASR, 2018). Subsequently, in 2019, the European Parliament adopted a directive extending the current definition of misleading commercial practices. They could also be regarded in the future as the dual quality of goods that are promoted in the same countries, although they have a distinctly different composition. At the same time, the text proposed by the directive calls on the European Commission to assess the newly created situation within two years of its entry into force and, if necessary, propose the inclusion of dual quality products directly between unfair commercial practices (TASR, 2019). This will be followed by a review of regulations at European and national levels as well as the composition and quality of products (Jiménes et al., 2019) on a pan-European scale. But some European parliament members have reservations about this directive. According to them, it is important to respect local preferences, but in particular, according to them, the introduction of dual quality among unfair commercial practices will increase producers’ costs that will not benefit consumers (CTK, 2018). But this is questionable, as higher quality products are sold abroad at comparable prices abroad, thus yielding the cost of producing quality products at current prices. On the other hand, if the sales prices of the products would also increase, higher quality would eliminate the additional costs that arise, for example form health problems (Popa et
al., 2019), allergies, or more frequent purchases of given products of lower quality.

The evidence of governmental level is vast, however the question of what the customers really want remains. Therefore, the hypothesis $H_3$ in this research focused on examining possible solutions to dual quality as preferred by customers. The assumption was that more than 60% of consumers would prefer legislative ban on existence of dual quality of goods. Binominal test was used to confirm hypothesis $H_3$. It was discovered that 73.8% of customers would prefer such solution to any other methods to eliminated dual quality in Europe. According to our respondents, the production of identical products of different quality should be characterized as an unfair practice, which would prohibit this situation by law. In their opinions, compliance with the legislation should be verified regularly and fines should be imposed on manufacturers for infringement. This would in turn lead to a uniform quality of daily consumption goods in the single European market and consumers of one, the same category, who would have the same economic conditions on the supply side in their purchases. The EU Agriculture and Rural Development Committee is also of the opinion that one brand, one product, different content and different proportions must be stopped (European Parliament, 2018).

CONCLUSION

The problem of dual quality of goods in Europe has existed for almost 30 years. First, it was the experience of people from former communist countries traveling abroad or working abroad. Later, these practices were proven by testing and comparing products of the same brand from one manufacturer but purchased in different countries. Surveys of V4 citizens’ opinions show that customers feel resentment towards such practices of some producers and disagree with them. According to the research of Czech consumers, up to 90% of them are not satisfied with the existence of dual quality. According to our research, 82% of respondents are inconvenienced by this practice. It is clear that the voice of the dissatisfied EU population is getting stronger, as the European Commission has started to address this issue by developing a unified testing methodology and is also preparing legislative changes.

The main aim of this research study is to examine the opinions of Slovak consumers on the dual quality of daily consumption goods in the EU and its economic aspects, to compare them with the results from abroad and to formulate conclusions and recommendations. As this research shows, the consumers perceive the problem of dual quality very sensitively, especially from an economic point of view. Very similar consumer perceptions have been confirmed by researches conducted in other countries of Central and Eastern Europe, especially in the Czech Republic. If they buy a product that lasts less than the same product to a Western European citizen, which in addition costs more, and therefore has to buy it more often with lower income, they are bothered by this situation and do not consider it fair. Most respondents are demanding the banning of the procedure by their local governments and European Union level. According to them, that practice should be prohibited and compliance with the prohibition should be controlled and, in the event of infringement, sanctioned. On average, 25.58% of respondents consider the problem of dual quality of daily consumption goods as economic. However, the majority of people also perceive it as legal issue that not just local governments, but the EU institutions need to focus on. In a fact the majority of people would prefer legislative ban on dual quality as ideal solution to this problem. Based on this information, the main aim can be considered as fulfilled.

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REFERENCES

1. Aktuality.sk. (2017). Veľký test potravin a prachov pristrojov odhalil problem. Retrieved from https://www.aktuality.sk/clanok/504639/velky-test-potravin-a-prachov-pristrojov-uz-na-prvypohlad-horsia-kvalita-aj-zlozenie/

2. Ali, M. M. (2018). Existing situation and prospects of green economy: evidence from Bangladesh. Environmental Economics, 9(2), 7-21. https://doi.org/10.21511/ee.09(2).2018.01

3. Aschemann-Witzel, J., Giménez, A., & Ares, G. (2018). Consumer in-store choice of suboptimal food to avoid food waste: The role of food category, communication and perception of quality dimensions. Food Quality and Preference, 68(9), 29-39. https://doi.org/10.1016/j.foodqual.2018.01.020

4. Baldone, E., & Spalvena, A. (2019). Problems and Perspectives in Management, Volume 17, Issue 3, 2019. 392

5. Benešová, B., Švejdová, Z., & A., & Ares, G. (2018). Consumer Appetite, 135(4), 43-53. https://doi.org/10.1016/j.appet.2018.01.029

6. Bera, A., & Sadowska, B. (2017). Velké srovnaní potravin za hranicemi a v českých obchodech: z 21 výrobok se zhodovali jen tři. Retrieved from https://www.irohlas.cz/zpravy-domov/velke-srovnani-kvality-potravin-z-21-vyrobyku-se-shodovaly-jen-trei_1707111548_ph

7. Bonadona, A., Macar, L., Peira, G., & Giachino, C. (2017). The dark side of the European quality schemes: The ambiguous life of the Traditional Specialities Guaranteed. Quality – Access to Success, 18(156), 102-108. Retrieved from https://www.scpus.com/record/display.uri?eid=2-s2.0-85012293986&origin=inward&txtId=82a4f8e83898ebe7ea0de42db57c8

8. Brzěnicky, J. (2018). Different quality of food in Poland and Germany. UOKiK presented the results of the research. Retrieved from https://www.money.pl/gospodarka/wiadomosci/artykuly/roznajakoszczywnosci-w-polsciei-w-niemieczech,6,0,2418182.html

9. Bryla, P. (2015). The role of appeals to tradition in origin food marketing. A survey among Polish consumers. Appetite, 91(8), 302-310. https://doi.org/10.1016/j.appet.2015.04.056

10. Carlson, D. L., Miller, A. J., & Sassler, S. (2018). Stalled for whom? Change in the division of particular housework tasks and their consequences for middle- to low-income couples. Socius: Sociological Research for a Dynamic World, 4(2018), 1-17. https://doi.org/10.1177/2378023118765867

11. Česká televize (2017). Eurokomisarka Fourová chce kvůli dvojí kvalitě potravin jednat s výrobci. Retrieved from http://www.ceskatelevize.cz/cl24/ekonomika/2184097-eurokomisarka-fourova-chce-kvoli-dvouji-kvalite-potravin-jednat-s-vyrobyci

12. Čimová, D. (2011). Naša Coca-Cola je trochu iná ako česká a nemecká. Retrieved from https://ekonomika.sme.sk/c/5843781/nasa-coca-cola-je-trochu-ina-akceska-a-nemecka.html

13. Čimová, D. (2017a). Porovnali potraviny rovnakej značky u nás a v Rakúsku, polovica mala iné zloženie. Retrieved from https://dennik.sk/682429/porovnali-potraviny-rovnakej-znacky-u-nasa-a-rakusku-polovica-mala-inezlozenie/

14. Čimová, D. (2017b). Na Slovensku sme výrobkom ponechali názvy, ale charakter sme im zmenili. Retrieved from https://dennikn.sk/707216/na-slovensku-sme-vyrobovm-ponechali-nazvy-alecharakter-sme-im-zmenili/

15. Crane, M. M., Tangney, Ch., C., French, S. A., Wang, Y., & Appelhans, B. M. (2019). Gender Comparison of the Diet Quality and Sources of Food Purchases Made by Urban Primary Household Food Purchasers. Journal of Nutrition Education and Behavior, 51(2), 199-204. https://doi.org/10.1016/j.jneb.2018.07.016

16. ČTK (2018). Konec dvojitej kvality je blížie. Európsky parlament ju dnes odmietol. Retrieved from https://fimweb.hnonline.sk/zahranicka-ekonomika/1808921-konec-dvojitej-kvality-potravin-je-bлизие-európský-parlament-ju-dnes-odmietol

17. Domanski, T., & Bryla, P. (2013). Marketing Produktów Regionalnych na Europejskim Rynku żywności. Lodz: Lodz University Press.

18. Dtest (2016). Rozdílná kvalita potravin v EU. Retrieved from https://www.dtest.cz/clanek-5156/rozdilna-kvalita-potravin-v-eu

19. Eubusiness (2019). Dual quality food testing procedure ready in April. Retrieved from https://www.eubusiness.com/news-eu/dual-quality-food-529/

20. Euraktiv.sk. (2011). Sú v nových členských krajinách nekvalitnejšie potraviny? Retrieved from https://euractiv.sk/clanky/podnikanie-a-praca/su-v-novych-clenskych-krajinach-nekvalitnejsie-potraviny-016936/

21. European Commission (2017). State of the Union 2017. Retrieved from https://ec.europa.eu/commission/priorities/state-union-speeches/state-union-2017_en

22. European Commission (2019a). Dual Food Quality: Commission releases study assessing differences in the composition of EU food products. Retrieved from https://europa.eu/rapid/press-release_IP-19-3332_en.htm

23. European Commission (2019b). Dual Food Quality: Questions and Answers. Retrieved from https://europa.eu/rapid/press-release_QANDA-19-3333_en.htm

24. European Parliament (2018). Report on dual quality of products in
31. Islam, R., Ghanii, A. B. A., Abidin, I. Z., & Rayaiappan, J. M. (2017). Impact on poverty and income inequality in Malaysia’s economic growth. Problems and Perspectives in Management, 15(1), 55-62. https://doi.org/10.21511/ppm.15(1).2017.05

32. Jiménez-Cardelo, A. M., González-Casado, A., Bagur-González, M. G., & Cuadros-Rodríguez, L. (2019). Alternative data mining/machine learning methods for the analytical evaluation of food quality and authenticity – A review. Food Research International, 122, 25-39. https://doi.org/10.1016/j.foodres.2019.03.063

33. Just-food (2019). EU dual quality study finds nearly third of products at fault. Retrieved from https://www.just-food.com/news/eu-dual-quality-study-finds-nearly-third-of-products-at-fault_id141717.aspx

34. Kaczmarczyk, M. (2016). Kowalski prefers Der Persil. Why do Poles choose chemistry from Germany? Retrieved from https://www.newswave.pl/biznes/chemia-z-niemiec-dlaczego-polacy-ja-prijezdzaja/6recfv1

35. Kirkpatrick, S. I. (2019). Examining the Quality of Foods and Beverages Across the Food Stream. Journal of the Academy of Nutrition and Dietetics, 119(1), 35-38. https://doi.org/10.1016/j.jand.2018.08.166

36. Kušnírová, M. (2016). Ľudia chcú kvalitu. Kto sa neprispôsobi, bude mat problémy. Retrieved from https://ekonomika.sme.sk/c/3816458/lovac-nakupujupotraviny-podlakvality-cena-jedruhorada.html

37. Lacenová, O. (2018). Ľudia spočítali své nákupy potravin. Praha: Alfa Nakladatelství. Retrieved from https://katalog.upce.cz/documents/420048

38. Leinert, D. (2017). Nemci mají lepší zboží, dokazují první data z veľkého průzkumu kvality. Retrieved from https://www.idnes.cz/zpravy/domaci/kvalita-zbozi-srovnan-cesko-nemecko. A170710_212623_domaci_hro

39. May, S. (2013). Cheese, commons and commerce: On the politics and practices of branding regional food. Ethnologia Europaea, 43(2), 62-77. Retrieved from https://www.scpus.com/record/display. uri?eid=2-s2.0-84960833173&orig inward&txGid=d0eb5323e91a0d5a481a31ab32c2ba7b

40. Ministry of Agriculture and Rural Development of the Slovak Republic (2017a). Potvrdené: Tieto virtuálne měny na Slovensku a v Rakúsku iné zloženie. Retrieved from http://www.mpsr.sk/index.php?navID=1&navID2=1&sID=1&navID3=11&id=11185

41. Ministry of Agriculture and Rural Development of the Slovak Republic (2017b). Pri nákupe potravin zohráva najdôležitejšiu úlohu kvalita potravin. Retrieved from http://www.mpsr.sk/index.php?navID=1&navID2=1&sID=1&navID3=11&id=11942

42. Ministry of Agriculture and Rural Development of the Slovak Republic (2017c). Dvojáka kvalita je problém už tretiny členských krajín EU. Retrieved from http://www.mpsr.sk/index.php?navID=262&id=12103&start=1

43. Ministry of Foreign and European Affairs of the Slovak Republic (2017). Dvojáka kvalita potravin: V čom je rozdiel? Retrieved from https://www.mzv.sk/detail-aktuality/-/asset_publisher/Hp2qsn2Z6f5/content/dvojaka-kvalita-potravin-v-com-je-rozdiel

44. Ministry of Industry and Trade of Czech Republic (2019). Dual Quality of Products – Comparative tests of foods on the common EU market. Retrieved from https://www.mpo.cz/en/consumer-protection/eu-and-the-consumer/dual-quality-of-products--comparative-tests-of-foods-on-the-common-eu-market---247385/

45. Morales-de la Peña, M., Welti-Chanes, J., & Martin-Belloso, O. (2019). Novel technologies to improve food safety and quality. Current Opinion in Food Science, 30(12), 1-7. https://doi.org/10.1016/j.cofs.2018.10.009

46. Mth (2016). V Česku jsou méně kvalitní potraviny než na Západě,
Office of Competition and Consumer Protection (2018). Good because German? Results of UOKiK tests. Retrieved from https://www.uokik.gov.pl/aktualnosci.php?news_id=14842

Parasecoli, F. (2017). Where-comes-labeling-traditional-foods to compete in a global market. Iowa: University of Iowa Press. Retrieved from https://www.amazon.com/Knowing-Where-Comes-Labeling-Traditional/dp/1609385330

Popa, M. E., Mitelut, A. C., Popa, V. I. (2019). The food quality standards in Romania. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

Politico (2019). Eastern Europe wins battle over double food standards. Retrieved from https://www.politico.eu/article/eastern-europe-wins-battle-over-double-food-standards/

Pratt, J. (2007). Food values: The local and the authentic. Critique of Anthropology, 27(3), 285-300. https://doi.org/10.1111/j.1654-9365.2007.tb01027.x

Popa, M. E., Mitelut, A. C., Popa, V. I. (2019). Organic foods contribution to nutritional quality and value. Trends in Food Science & Technology, 84(2), 15-18. https://doi.org/10.1016/j.tifs.2018.01.003

Šramková, M. (2015). Sociálna opora ako jedna zo zodpovedných sa dobrobytu a dobrabay. In Jurina Rusnáková (Ed.), Sociálna opora a sociálne siete marginalizovaných Rómov (pp. 176-202). Nitra: UKF.

Sudor, K. (2012). Neverte jahodám na obale. Retrieved from https://domov.sme.sk/c/6391125/neverte-jahodam-na-obale.html

TASR (2018). Rakúsko postihy pre dvojitú kvalitu v EU nechce. Retrieved from https://ekonomika.sme.sk/c/22011395/rakusko-vypustilo-postihy-pre-dvojitu-kvalitu-potravin-matcenej-ostro-proti.html

TASR (2019). Evropský parlament schválil smernicu o dvojakej kvalite produktov. Retrieved from https://www.etrend.sk/ekonomika/evropsky-parlament-schvalil-smernicu-o-dvojakej-kvalite-produktov.html

Tradingeconomics.com (2019). Austria Gross Average Monthly Income of Employees. Retrieved from https://tradingeconomics.com/austria/wages

Tradingeconomics.com (2019). Czech Republic Average Monthly Wages. Retrieved from https://tradingeconomics.com/czech-republic/wages

Tradingeconomics.com (2019). Germany Average Gross Monthly Earnings. Retrieved from https://tradingeconomics.com/germany/wages

Tradingeconomics.com (2019). Hungary Gross Average Wages. Retrieved from https://tradingeconomics.com/hungary/wages

Tradingeconomics.com (2019). Poland Average Gross Wage. Retrieved from https://tradingeconomics.com/poland/wages

Tradingeconomics.com (2019). Slovakia Average Monthly Wages. Retrieved from https://tradingeconomics.com/slovakia/wages

Tradingeconomics.com (2019). Poland Average Gross Wage. Retrieved from https://tradingeconomics.com/poland/wages

Tradingeconomics.com (2019). Poland Average Gross Wage. Retrieved from https://tradingeconomics.com/poland/wages

Tradingeconomics.com (2019). Slovakia Average Monthly Wages. Retrieved from https://tradingeconomics.com/slovakia/wages

Wszoborowska, P. (2019). No more double quality of food in the EU. We are getting closer, but they can block it. Retrieved from https://innpoland.pl/150631/podwajna-jakosc-zywnosci-w-ue-przepisy-standaryzujace-moga-nie-wejsc

Závadská, Z., Závadský, J., Veselovská, L., & Szczepańska-Woszczyńska, K. (2016). Consistency of the performance management system and its quantification using the Z-MESOT framework. International Journal for Quality Research, 10(4), 665-684. https://doi.org/10.18421/IJQR10.04-01

61. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

62. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

63. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

64. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

65. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

66. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.

67. Welz, G. (2012). The Diversity of European Food Culture. In U. Kockel & J. Frykman (Eds.), A companion to the anthropology of Europe (pp. 355-372). Chichester: Wiley-Blackwell.