Consumer Behaviour in Conditions of Dual Quality of Daily Consumption Goods in Slovakia

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Abstract—The problem of dual quality of daily consumption goods in the countries of the European Union has been known for a while. Well-known manufacturers do not offer their products in the same composition and quality in all countries of the join European market but produce two variants. The first variant for Western countries includes other basic and auxiliary ingredients, other proportions of basic raw materials, other active ingredients, as the second variant designated for the countries of Central and Eastern Europe. Research into this problem has been conducted mainly in the Czech Republic. However, several specific product tests have already been conducted in Slovakia, confirming that the composition of products purchased in Western countries (Austria and Germany in particular) is different from products purchased in the Slovak Republic, but the research of consumers' opinions is lacking. This paper addresses the issue whether consumers are aware of the dual quality problem of daily consumption goods, whether they are consider the information they receive and how their consumer behaviour changes accordingly.

Keywords—dual quality of goods, goods of daily consumption, consumer behaviour.

I. INTRODUCTION

The first experiences with dual quality were recorded in Slovakia in the 90s of the last century. In particular, it was about cosmetics and drugstore products. Products from the same brand purchased abroad had a significantly different flavour, composition and effect than products purchased in the Slovak Republic. Also, pills or, later, tablets for the dishwasher, which were brought to Slovakia by people working abroad, had a better effect than the same ones purchased at home.

In 2011, the Association of Consumers of Slovakia conducted a test comparing the composition of selected foods produced by multinationals and sold in the Slovak Republic and abroad. They bought identical products in Germany, Austria, Poland, the Czech Republic, Bulgaria, Romania, Hungary and Slovakia. Under the professional guarantee of the State Veterinary and Food Administration, food was tested by the accredited laboratories of the State Veterinary and Food Institute Bratislava and the State Veterinary and Food Institute Dolný Kubín. Based on the test, many foods such as coffee, beverages, chocolate and spices of the same brand sold in Slovakia and abroad may not have the same taste, composition or weight [20]. According to the Association of Consumers of Slovakia, the quality of the same products was generally worse in the "new EU Member States"; on the contrary, the quality of the goods purchased in supermarkets in Germany and Austria was the highest.

Similar tests and examinations were carried out in other countries. 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 [1]. In Hungary, 96 products were compared, where the State Veterinary and Food Administration did not find any violations of the law but a significant violation of ethical principles. Many tested products did not have the same composition as identical products sold in the West [2].

The issue of the dual quality of products sold in different countries of Europe has been actively investigated by V4 politicians, especially from Slovakia and the Czech Republic, who brought it up with the European Commission. At first the European Commission recommended leaving a solution to individual countries. In September 2017, Jean-Claude Juncker admitted that consumers in the European Union should not have "second-hand consumers" and that consumers in Slovakia, the Czech Republic and Hungary deserve the same quality as consumers in Western Europe (European Commission, 2017). The European Commission is currently negotiating with representatives of Central and Eastern European countries and with manufacturers. Experts should work on a unified and uniform methodology for comparing quality and composition of products. However, Austria, as the EU presiding country in 2018, has refused to place the issue of double quality in the forthcoming consumer protection legislation, so this problem has not been included in the list of unfair practices [3].

Mr. Albín Sladovník, former chief of the Slovak Trade Inspection, has perceived the problem (especially with cosmetic products) from the year 1994. According to him, there has never been such interest about the problem like these years [4]. In our research we therefore focused on whether the Slovak inhabitants encountered this problem and whether they have changed their purchasing behaviour under the influence of their media coverage.

II. METHODOLOGY

Given these problems, we undertook an empirical study among Slovak consumers to determine how the problem of dual quality of goods is really perceived and how it influences buyers' behaviour. The main aim of this research study is to evaluate the most significant factors influencing the perception of dual quality of products by Slovak consumers.
In order to fulfill this goal we use data provided by Slovak respondents via survey which was conducted in a period between February 2018 and October 2018. A questionnaire was used to collect data.

Our research was carried out on a sample of 919 inhabitants of Slovak republic. We can structure this sample by various criteria such as gender, age and education of respondents. Two thirds of people in our sample file were women (66.15%) and 33.85% were men.

Statistical methods were used to evaluate data and discover relevant information. In order to further explore correlation relationships between various factors individual correlation coefficients were calculated according to (1) [5], [6]:

\[ r = r_n = \frac{\sum_i (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_i (x_i - \bar{x})^2} \sqrt{\sum_i (y_i - \bar{y})^2}} \]

where:

\[ x_i, y_i \text{ – are defined as a value of } i\text{-element belonging to dataset } \{x_1, \ldots, x_n\}, \]

\[ \bar{x} = \frac{1}{n} \sum_{i=1}^{n} x_i \text{ - the sample mean and analogously for } \bar{y}. \]

III. RESULTS AND DISCUSSION

As it results from the research, up to 89% of respondents have already heard about the dual quality of daily consumption goods in Slovakia and abroad. Most (72%) learned this information from the media, as well as 72% of respondents have a personal experience with this issue, or they know someone with such experience. They most often encountered this problem when buying meat, milk, sweets, and detergents. Little less than 75% of respondents said that this problem is important to them and as much as 82% of them are bother by this issue and consider it a problem.

In recent years, Slovak consumers are more demanding for quality. According to the results of several GfK Slovakia surveys conducted on samples of 1000 respondents, most respondents point to the quality and freshness of food as a decisive preference for purchasing food products [7], [8]. Even in our research, up to 80% of respondents said the quality of the goods is the decisive criterion for buying (Fig. 1.).

It is interesting to further look into the issue of trustworthiness of information sources with emphasis on people’s education (Table 2). When structured by criterion of education the level of trustworthiness vary significantly. Own experience remains the most trustworthy source of information, however only 63.64% of people with primary education consider it believable. The percentage of people rises with higher education. Another interesting finding is that 72.73% of elementary school graduates trust their family members with having credible information about dual quality of products. This percentage is significant lower for people with lower levels of education. Furthermore, we examined this

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**TABLE I. TRUSTWORTHINESS OF SOURCES BASED ON AGE**

<table>
<thead>
<tr>
<th>Trust-worthiness of sources</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>below 25</td>
</tr>
<tr>
<td>own experience</td>
<td>80.62%</td>
</tr>
<tr>
<td>family</td>
<td>52.86%</td>
</tr>
<tr>
<td>friends, acquaintances</td>
<td>43.61%</td>
</tr>
<tr>
<td>people in my community</td>
<td>8.37%</td>
</tr>
<tr>
<td>media</td>
<td>19.82%</td>
</tr>
<tr>
<td>results of scientific</td>
<td>43.17%</td>
</tr>
<tr>
<td>research</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: Authors

Fig. 1. Factors influencing buyers’ behaviour (source: authors)

In our research, we focused on the issue whether the information about dual quality of goods influences respondents’ behaviour. The majority of respondents have already encountered the problem of dual quality food in the media. The media bring a lot of information that directly or indirectly affects consumers. The media represent a significant mind-forming factor that co-produces the lives of individuals, groups, and society as a whole, and cannot be isolated from their impact [9]. Their effort is to change consciously how consumers think about a product and how it approaches it. The power of scrolling information is so great that we can sometimes believe it faster than our own eyes. Nevertheless, only 24% of the interviewed respondents believe media information to be trustworthy. Table 1 shows the trustworthiness of sources as perceived by different age groups.

According to the results the majority of Slovak people trust their own experience with dual quality. On the other hand, any other source of information is perceived as entirely trustworthy. Over half of people younger than 25 years believe their own family members. However, the level of trust in family’s experiences and beliefs concerning the dual quality of goods gets below 50% in age groups older than 26 years.

Trust in friends and close acquaintances is approximately 40%, again a bit higher for younger people. What is interesting is that trust in other people in community is below 10%, which makes it the least trustworthy source of information about dual quality of products. The second least trustworthy source is media. This result is not very positive, since it was discovered that media is also the main source of information concerning dual quality of products. It is interesting that the level of media’s trustworthiness was significantly higher in group of people older than 66 years.
issue in terms of potential dependence between these factors and indeed the correlation coefficient calculated according to formula 1 was 0.506, which indicates a medium strong direct dependence between level of education and trustworthiness of sources.

<table>
<thead>
<tr>
<th>Trust-worthiness of sources</th>
<th>Education</th>
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<tbody>
<tr>
<td></td>
<td>primary</td>
</tr>
<tr>
<td>own experience</td>
<td>63.64%</td>
</tr>
<tr>
<td>family</td>
<td>72.73%</td>
</tr>
<tr>
<td>friends, acquaintances</td>
<td>45.45%</td>
</tr>
<tr>
<td>people in my community</td>
<td>9.09%</td>
</tr>
<tr>
<td>media</td>
<td>18.18%</td>
</tr>
<tr>
<td>results of scientific</td>
<td>36.36%</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: Authors

Gender, family, and decision-making process play a critical role in interacting with culture and its impact on consumer behaviour [10], [11], [12]. In these terms, however, social learning, which we can characterize as a way of acquiring patterns of behaviour through contact [13], interacting with other people, is of utmost importance. Especially in case of food buying are family and friendship bonds very important [14]. Social influence is not effective automatically, not every person we come into contact with is the source of social learning for us [15]. Social influence is effective on the basis of social dependence - people who are indifferent to us do not affect us, at least not significantly. We advocate amongst the sources of attitudes, behaviours of social communication in the form of friends, family, friends, other community, as well as the influence of institutional factors such as various associations and institutions, the media, government and others [5].

Social learning is effective especially when the role model for consumer behaviour is the person with whom the consumer identifies. People buy what buy their friends, acquaintances, neighbours and other acquaintances. Even in our research, most respondents consider family, friends, and close acquaintances the most trusted source of information. Of course, there is nothing more significant than one's own experience with the product, which was confirmed by 79% of respondents.

Even before consumers buy daily consumption products, some are looking for and evaluating the widest range of information that points to the quality of the purchased products [16], [17]. And after studying, they decide to buy. Others, who have a firm stance on a product, decide on their next conviction to choose the product that they have been satisfied with in the past and do not put much emphasis on any information that may point to the fact that some manufacturers ship their products under the same brand in different countries, but in different quality. It is also possible for these consumers to change their consumer behaviour, but it will not be automatic. When the attitude or behaviour is changed, it is important to consider: the source of communication (e.g. the degree of its expertise or attractiveness), the communication itself (e.g. the quality of the arguments or the communicator presenting both sides of the problem) and the nature of the consumer (whether the customer's attitude towards the given angle of view is irresponsible or friendly).

The consumer behaviour of people is often not caused by their personality but by the situation they are in. We often underestimate the power of social influence (e.g. the media) and the immediate situation. Personality differences of people are important, but social situations and the social environment (family, friends, acquaintances) are so powerful that sometimes they dramatically affect many of us. This has also been confirmed in our research where up to 70% of respondents have changed their purchasing behaviour under the influence of dual quality information (Table 3) obtained mainly through the media or through family and friends. Most of these respondents started to pay attention to the composition of the goods they buy, especially the food assortment.

According to the data people between 46 and 65 years are least likely to change their behaviour due to dual quality of products since only 68.53% of them decided to do so. The highest rate of change is among people older than 66 years.

<table>
<thead>
<tr>
<th>Change in buyer's behaviour due to dual quality of goods based on age</th>
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<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td>no</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Authors

We examined this interesting issue also in terms of gender differences (Table 4). Our findings indicate that women are more likely to change their buyer’s behavior than men since 75.33% of women decided on this change and only 65.15% of men did the same. However, when examined for dependences between these factors, we were unable to confirm correlational relationships between change in buyer’s behavior due to dual quality of goods and gender nor with age with any statistical significance. Therefore, it is possible to conclude that changes in buyer’s behavior due to dual quality of goods are based neither on gender nor on age of consumer and any person is likely to make adjustments in what they buy.

<table>
<thead>
<tr>
<th>Change in buyer's behaviour</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>75.33%</td>
<td>65.15%</td>
</tr>
<tr>
<td>no</td>
<td>24.67%</td>
<td>34.85%</td>
</tr>
<tr>
<td>Total</td>
<td>75.33%</td>
<td>65.15%</td>
</tr>
</tbody>
</table>

Source: Authors

Also Mr. Albin Sladovník – former chief of the Slovak Trade Inspection – recommend, that consumers should to teach to read packages and labels of products and therefore to contact national trade inspection and let it to solve unfair practices of multinational companies. However, labels may
not improve consumers' judgements [18]-[22]. Consumers should show producers of multinational brands that they are not satisfied with different (and mostly lower) quality in their countries. Even half of our respondents (52%) think that the problem should be solved by the national institutions (Slovak Trade Inspectorate, Association of Slovak Consumers). An appropriate media campaign could therefore ensure a change in consumer behaviour so that consumers are more aware of the composition of the goods and that they themselves put pressure on national and European institutions to solve the problem of double quality goods.

Although most of our respondents changed their buying behaviour with regard to dual quality information, some of them stayed in their usual buying behaviour. When will people be affected by what media, other social sources express, report? What matters is the extent to which the issue is of personal importance to them (e.g. if you live in a poor settlement and you only have basic food and maybe not even that, the issues of dual quality of food is of no importance if you need to survive). If this is not important to us or if it does not concern us, this information is of low personal relevance for us. The more relevant the issue is, the more people are willing to pay attention to the arguments provided by different sources. And whereas as many as 75% of respondents perceive the issue of dual quality goods as important for their lives, it is highly likely that the media campaign will be met with considerable attention.

IV. CONCLUSIONS

As is clear from the results of our research, people are aware of the dual quality of goods in the European Union, and this problem is important to them. At the same time, we learned that, under the influence of information (especially from the media), they have changed their consumer behaviour and have more control over the composition of the goods - especially the food assortment. Up to 90% of respondents said they wanted to continue to be informed about double quality food. They prefer media outreach and results of scientific research most. Secondly, an international website on cases of double quality food in the EU countries has been placed among the desired ways of obtaining information. As early as 2017, such a website should have been launched under the auspices of the Slovak Ministry of Agriculture, but it is still not available. Most respondents also stated that they would be willing to inform others of their experiences with dual quality goods and most of them would have preferred an internet website as an outlet for this kind of information. Slovak Minister of Agriculture together with Mrs. Věra Jourová the Czech Eurocommissioner for justice and consumer protection are very active in solving the problem at national and European level. Therefore, we recommend launching a website dedicated to dual quality food issues beginning in the Slovak republic and the Czech Republic and also implementing media campaigns supported or even created by the governments of both countries.

ACKNOWLEDGMENT

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