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# Dual quality food: A negative social externality or a competitiveness opportunity?

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**Abstract**: In recent times, consumers and politicians from Central and Eastern Europe complain that some food products sold in their regions are of lower quality and less healthy if compared to those sold under the same brands in Western Europe. This situation, that concerns exclusively food produced and sold under even well-known multinational brands, is brought back by many food Multi-National Companies to the necessity to adapt their products to local tastes and gastronomic traditions. Many tests and studies carried out at European level prove poorer-quality products offered by Multi-National Companies to Central and Eastern Europe consumers even if with the same packaging and prices (or even more expensive) of Western countries. This is a very novel issue, and to the best of our knowledge, there is not any scientific paper yet dealing with this issue. Therefore, the aim of the study is to add new knowledge to this field and to shed light on the multiple aspects linked to dual quality food. The analysis, essentially theoretical, has pointed out that in addition to the traditional problems of market failures, there can be positive implications in terms of opportunities of competitiveness for multinational food companies.

**Keywords**: asymmetric information as source of competitiveness; Central and Eastern Europe countries; dysfunctional single market food of different qualities; food Multi-National Companies adaptation strategies to local tastes; market failure

Dual quality is a practice in which multinational food companies use different recipes, formulations or standards for items sold under the same brand name and with very similar looking packaging but of lower quality. Consumers and politicians from Central and Eastern Europe (CEE) complain that some food products sold in their regions are of lower quality and less healthy if compared to those sold under the same brands in Western Europe.

This situation, that concerns exclusively food produced and sold under even well-known multinational brands, is brought back by many food Multi-National Companies (MNCs) to the necessity to adapt their products to local tastes and gastronomic traditions. Depending on the market where they are sold, some products might be of lower nutritional value, contain inferior ingredients or have lower efficacy.

Many tests and studies carried out at European level prove poorer-quality products sold under the same packaging and prices (or even more expensive) in CEE countries.

This is a very novel issue, and to the best of our knowledge, there is not any scientific paper yet dealing with this issue.

Therefore, considering the growing attention accorded to this topic, the aim of the study is to add new knowledge to this field and to shed light on the multiple aspects linked to dual quality food. Specifically, the research is aimed to analyse: i) the link between asymmetric information and market failures caused by MNCs differentiation strategies; ii) all the effects of asymmetric information generated by dual quality food production in terms of pitfalls and opportunities either for consumers or for food companies.

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## DIFFERENTIATION STRATEGIES FROM FOOD MNCs AND DUAL QUALITY FOOD

Notwithstanding the many management theories supporting the homogenisation and standardisation of the product supply, most of the MNCs manufacture or distribute their products adapting them to local culture and preferences, following the "Think Global, Act Local" principle. The differences among cultures and local consumers' preferences influence the food preparation recipes, processed food, their flavours and textures (Metin and Kitzin 2015).

This is the reason, why McDonald, Coca Cola and other recognised global brands adapt recipes and tastes of products to the markets where they operate (Ioanid et al. 2014). For example, following this approach, McDonalds in India, in its burgers, use chicken rather than beef and pork for religious reasons.

This situation affects food production even in the single EU market, whose enlargement has led to a great diversification of food tastes and different disposable incomes.

However, the country-specific differentiation strategy adopted by MNCs has increased the information asymmetry affecting the food supply chain, creating ambiguous situations. Sometimes it is quite difficult to distinguish between real adaptation to local consumers and opportunistic behaviour by MNCs.

In order to investigate the extension of the problem, several tests were carried out on food and drinks well-known products, to identify possible differences in the product composition sold in CEE countries (the Czech Republic, Croatia, Hungary and Slovenia, Lithuania, Slovakia, Romania and Bulgaria). In 2016 several food products (22) with the same brand and packaging were analysed and compared in Slovakia and Austria. For 10 out of 22, significant differences (e.g. in fish or fruit content) were found (BEUC 2018).

In 2017, a similar survey was carried out by Member of the European Parliament and the Croatian Food Safety Agency in Croatia and Germany; the survey pointed out differences in 53% of analysed food items. Furthermore, they found a higher price in the Croatian market for 16 analysed products (56.3%) (Merten-Lenz 2018).

In a study done for the Czech Republic, 18 well-known food products were analysed and compared with products sold with the same brand in German markets. No differences among products sold in the two different markets were found. Nevertheless, private label products showed significant differences between retailer groups operating in various markets (BEUC 2018). Similar research implemented on famous brands in Poland, Hungary, Italy, Austria and the Czech Republic revealed differences in the number of principal ingredients (less in Poland, Hungary and the Czech Republic than in Italy and Austria). In Slovenia and Austria, both branded and private label products were surveyed comparing labelling and package presentation, a sensory analysis, and where necessary, a complementary chemical analysis. The significant differences were found in 20% of examined products (BEUC 2018).

Finally, a very interesting study conducted on Croatian and German markets, argues that 56.3% of products have a higher price in Croatian market than in the German one, 3.84% has a higher price in the German market, while for 34.6% no differences were found (Borzan 2017; Table 1).

Even if the results are not comparable from the scientific and technological point of view, because the applied methodologies vary widely, the economic implications of these studies are worthy of note.

The food industry tries to justify the need for vertical quality differentiation with country-specific factors as local tastes and a lower purchasing power of consumers in certain CEE, who may not otherwise be able to afford a higher quality grade of the product. However, in some cases, in eastern countries, products of lower quality were found to be more expensive than the higher-quality variant sold in another Member State.

Food sold under the same brand and packaging with differences in composition must be considered unfair: consumers are misled by product's real characteristics, and they risk to overestimate the quality of the purchased food (they do not expect that the quality is adapted to the market of their country). As a result, they may lose their purchasing decision buying a product that they probably would not buy. Furthermore, they are not well informed whether the difference in price matches with the difference in quality. It means that there is asymmetric information: the imbalanced information may cause disadvantage of purchasers as they may be mistaken while choosing the product or be influenced by suppliers for selling purposes (Kogan et al. 2017).

In this situation, the risk of opportunistic behaviour hides behind the thin edge between the differentiation and local tastes adaptation strategies, even more adopted by MNCs, and the will to save production costs using lower and cheaper quality ingredients.

Specifically, in the frequent and realistic occurrence that the quality of products cannot be as-

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Table 1. Examples of dual quality and dual prices for renowned food products (Croatian and German markets)

| Product | Difference in quality | Difference in price |
|---|---|---|
| Jacobs Cronat Gold | | |
| Pepsi Cola | | |
| Coca Cola | | |
| Coca Cola Zero | | |
| Happy Day 100% orange | | |
| Nestea Ice Tea Peach | | |
| Heineken Beer | | |
| Red Bull | | |
| Milka Chocolate Whole Hazelnuts | | |
| Nutella | | |
| Haribo Happy Cola Original Gummy Candy | | |
| Philadelphia Original | | |
| Acive Fruit Youghurt Strawberry | | |
| Monte Milk Dessert | | |
| Rio Mare Tuna in Olive Oil | | |
| Extravirgin Olive Oil Classic | | |
| Barilla Spaghetti No. 5 | | |
| Pringles Original | | |
| Wudy Frankfurters | | |
| Hipp Rice and Carrot with Turkey | | |
| Nesquick Cereal | | |
| Ariel Vollwaschmittel | | |
| Lenor Summer Breeze 4 × Longer Freshness | | |
| Bref Powergel 4 × Effect WC. Total Protection | | |
| Nivea Shower Gel | | |
| Colgate Fluoride Toothpaste Sensation White | | |

There is a difference

There is no difference

Source: Borzan 2017

sessed prior to their purchase, it might be surmised that consumers will use the quality of the firm's past production to judge present quality. In this situation, the choice to produce at different quality levels is made through a dynamic process. Past production quality is used as a signal to determine the present quality. In this sense, brand reputation can be considered a signalling process. Thus, food MNCs define their own quality standard, which we might call "reputational quality". The price of high-reputation products is higher than the price for products of the same quality but lesser reputation. This situation is an instance of market failure and negative social externality. In the short term, the high-reputation firm can have extra benefits from a decrease in the quality of its products that implies a reduction in production costs. Thus, the opportunity cost of keeping a certain quality level must be integrally offset by an increase in the product prices compared to its actual value (Coricelli and Luini 2002).

The dual quality situation is very diversified and varied. The differences may include the use of additives, added sweeteners instead of sugars, the substitution of animals' fats instead of vegetable fats, lower meat, fish or fruit content, and so on, without declaring it. Therefore, product differentiation can be considered legitimate only if the change of the composition is justified by the need to adapt to local taste prefer-

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ences. On the contrary, if food products are marketed under the same brand and packaging, despite their quality and health properties decrease to save on costs at the detriment of consumers, it becomes an unfair commercial practice (BEUC 2018).

For consumers, the rationale is that a firm associated with a positive image is less likely to send a false signal. The manufacturer reputation is directly linked to the product, and this suggests that in assessing product quality, manufacturer reputation and brand name have the greatest impact on consumer perceptions of product quality (Purohit and Srivastava 2001). Some authors (Grunert 2005; Ioanid et al. 2014) argue that brands and trademarks are so predictive powerful signals of the product quality that consumers fully trust them in a purchasing decision even without reading it carefully.

A further proof stated by Velčovská and Hadro (2018), is given by the minimal labels' food quality awareness of consumers during grocery shopping.

## EU LEGISLATIVE REGULATION OF DUAL QUALITY

When "unfair" business occurs, the institutions or governments are called to restore the commercial practices in the internal market. In this context, the Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005, contributes to the correct functioning of the internal market and to reach a high level of consumers protection their economic interests with amendments aimed to sanction misleading actions and/or omissions; aggressive commercial practices; use of harassment, coercion and undue influence.

To achieve a high level of consumers health protection and to guarantee their rights, it should be ensured that consumers are appropriately informed as regards the food they consume. Consumers' choices can be influenced by, *inter alia*, health, economic, environmental, social and ethical considerations. In these regards, the European Parliament and of the Council, on October 25, 2011, emanates the Regulation (EU) No 1169/2011 concerning the provision of food information to consumers.

Furthermore, the European Commission has recently released a new notice (2017/C 327/01) entitled "Commission Notice on the application of EU food and consumer protection law to issues of Dual Quality of products — The specific case of food". This document, addressed to food MNCs operating in CEE countries, aimed to: i) require precise information; ii) control if product composition under the same brand differs from the version sold in other parts of the single market by using a testing protocol; iii) introduce stronger sanctioning for unfair business practices based on misleading information.

From the policy point of view, this new threat gives a key role to the cooperative and vigilant attitude between European Commission, competent national authorities and consumer organisations that, time after time, have to evaluate the potential dual quality cases and the "significance" of recipes changes.

## ASYMMETRIC INFORMATION AND MARKET FAILURES IN FOOD MARKETS

In modern food markets, characterised by long food supply chains and a growing number of involved actors, from production to consumption, the information asymmetry increases, fostering moral hazard and adverse selection problems. Further determinants of such problems are represented by country-specific food production strategies adopted by MNCs (Holmstrom 1979).

Asymmetric information represents a critical issue for the market functioning because when individuals are incapable of evaluating the quality of goods and services and/or are unable to observe other individuals' private information, then the market fails to produce equilibrium prices and coordinate transactions efficiently (Rothschild and Stiglitz 1997; Stiglitz 2000).

Considering the market as a whole, the dual quality food problem affects different categories of economic subjects.

The first one is the market itself whose failure is the first direct consequence of asymmetric information and flaws in its functionality as a competitive market.

From the firms side, the "double food quality" represents a growing source of concern due to the risk of significant financial, social and reputational losses strictly linked to: i) decline of brand reputation; ii) market losses due to market share; iii) decline of confidence in the food product category; iv) decline of sales of food category.

The lack of market transparency, caused by dual quality, induces consumers to pay a premium price while getting food of inferior quality (Hirschauer et al. 2012). This consumer surplus reduction caused by the opportunistic behaviour of MNCs determines the adverse selection problem (Akerlof 1970). The brand loss

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of the role of quality signal and the decrease of consumer satisfaction, negatively affect his willingness to pay for some branded products.

As a consequence of the adverse selection problem, companies with "best" not observable quality characteristics are damaged. They have to support signalling costs to communicate their information surplus (Spence 1973). Following this strategy, some MNCs are considering to change the package, with the purpose of immediately communicate to consumers the differentiation of their products across Member States.

Concerning the indirect impacts, there is a reduction of the brand value of these MNCs in consumer's view with a reduction of consumers' trust in the specific food product, a decline of sales and therefore, market losses for the company (Brunsø et al. 2002).

Food risks may be caused by moral hazard, i.e. by opportunistic behaviour of upstream sellers who exploit the fact that many food product qualities remain uncertain to downstream buyers in the course of conventional market transactions (credence qualities).

From the consumers' point of view, as they do not automatically know the product's quality or the accuracy of the characteristics information of supplied products (Borzan 2017), this represents a reduction of consumer surplus and consequently, of his satisfaction, due to the risk to pay premium prices for branded products but of inferior quality. As a consequence, in these markets, consumers' choice is threatened.

Specifically, while trademark law protects the right of a company to use a mark, it does not provide the consumer with a legal guarantee of a certain level of quality. Consumers pay a substantial premium for goods of their preferred brand, even if they are the same as the non-branded product (Desai and Waller 2010).

Due to this lack of market transparency, buyers run the risk to pay premium prices for inferior products (quality risks); furthermore, they run the risk to use or consume substances which are harmful (health risks).

Specifically, in the processed food industry, according to some authors (Caswell and Mojduszka 1996; Ippolito 2003), other negative externalities created by asymmetric information are associated with the health risk. In this situation, unsuspecting consumers not well-informed overuse lower quality food, negatively influencing the health risk. In such a situation, the reformulation strategies of national food products adopted by food companies could reduce the effectiveness of food campaigns aimed to promote a balanced diet and reduce diseases risk linked to diet. In this context, the risk of market failure could be reduced if the consumers had access to quality attribute information. In the case of accessibility to full information on product characteristics and quality, consumers would be able to make more informed decisions with a subsequent reduction of the risk of market failure. Therefore, the role of policy makers becomes crucial when the asymmetry takes place in the diet and health issues as the imbalance in this field may cause a negative impact on consumers' health in a long-term period because of their non-informed decisions.

An alternative solution to reduce the risk of negative externalities is represented by consumers asking for absolutely identical products.

## ASYMMETRIC INFORMATION: POSSIBLE SOURCE OF COMPETITIVENESS FOR FIRMS

Some authors argue as there are some positive effects linked to this situation, stimulating entrepreneurs to become more competitive (Milgrom and Roberts 1987; Aghion and Tirole 1994; Coricelli and Luini 2002; Barbaroux 2014).

This new situation, born by asymmetric information, creates the conditions to search for new business opportunities, leading them to find ways to acquire "more and more accurate and complete mutual knowledge of potential demand and supply attitudes" (Kirzner 1997).

Other companies are considering communication campaigns to inform consumers that they consider all their customers equal across EU single market and that they use the same recipes for all the countries (Šajn 2017).

The foregoing suggests that information asymmetry plays a dual role as it raises transaction costs and generates market failures but at the same time, creates market opportunities, providing incentives to develop innovations through the creation of new ventures. Two theoretical approaches are thus competing. The first one refers to the notion of information asymmetry as a market failure requiring specific arrangements regarding the financing of research and development activities, and the allocation of control among stakeholders (Barbaroux 2014). According to this approach, information is assimilated to a commodity that can be exchanged through market mechanisms, requiring stakeholders to negotiate for contractual arrangements that aim at minimizing transaction costs.

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The second approach refers to the idea of information asymmetry as a major source of market opportunities and competitive advantage (Shane and Venkataraman 2000).

This second view puts particular emphasis on information asymmetries resulting from differences in individuals' knowledge and cognitive abilities. Therein, asymmetrically distributed cognition is a major source of interindividual differentiation that allows certain individuals (and organisations) to create, identify and seize business opportunities.

Therefore, two situations are likely to reduce information asymmetry: i) self-selection, in particular through information disclosure and signalling, and screening; and ii) designing of incentive structures and monitoring (Stiglitz 2000). The first category provides rational responses to adverse selection problems; the second one is likely to reduce moral hazard situations.

As a whole, for some food companies, the "dual quality food" issue can represent an opportunity to expand their market. In order to mitigate uncertainty about food quality, a strategy adopted by processors is in some way to signal a product's quality level (Akerlof 1970).

By taking the initiative to communicate and to signal not directly observable characteristics to consumers, improving their information surplus, these companies can attract scared consumers in CEE markets. Signalling is thus considered as an efficient behaviour when confronting adverse selection issues (Spence 2002). However, as Lewis (2011) argued, whether information disclosure through signalling strategies reduces information asymmetries depends on two parameters: the costs associated to private information disclosure and the presence of some institutional framework allowing contractual enforcement.

## CONCLUSION

To the best of our knowledge, there is not any scientific paper yet dealing with the dual quality issue. Thus, it represents a novelty and an opportunity to gain knowledge and development on very important topics.

From the policy point of view, tackling the practice of dual quality will require action at multiple institutional levels whether it results from an inadequate enforcement of existing food laws, a dysfunctional single market, a lack of strong consumer representation at the national level, or a mix of these factors (BEUC 2018).

A further solution to the issues mentioned above, is represented by request from CEE countries addressed to MNCs to standardise their food products across the EU single market to put an end to the discriminatory practice that is interesting their citizens by means of food regulation described in the previous session. An alternative solution could be to force the food producers to include a warning about the dual quality on the packaging, with negative consequences in terms of marketing.

The direct reaction of consumers consists, most of the times, in the request of more information about marketed food products. This situation can represent an opportunity to expand their market for some food companies. By taking the initiative to communicate and to signal not directly observable characteristics to consumers, improving their information surplus, these companies can attract scared consumers in CEE markets.

The analysis has therefore revealed that, in addition to the traditional problems of market failures generated by asymmetric or imperfect information, there can be positive implications in terms of competitiveness for multinational food companies, if these will readily seize this opportunity.

Further research is needed to analyse the extension of the problem and increase empirical knowledge on this topic. Thus it provides more insights, allowing to compare the obtained results with those already found by other authors and to evaluate the differences between methodologies.

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