

PROMOTION, CONSUMER SOCIETY AND FOOD WASTE FACED TO THE SUSTAINABLE DEVELOPMENT GOALS

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Abstract

Nowadays, there is a controversial relation between consumer behaviour and food waste. On one hand, the sustainable food waste management is very vehement and, on the other hand, the development of promotional techniques is very dynamic, too. The development of human society, the acceleration of the rate of economic growth and the ever-higher generalized consumption is an obvious tendency. Among the many goods consumed excessively, food occupies a main place, generating the impressive quantities of food waste. The phenomenon is not only individual, but with a significant impact at the community level. We propose a set of solutions to regulate the imbalanced relation which is analysed. The used methods for the paper elaboration are: synthesis based on literature incursion, the empirical approach for connection between concepts and data analysis to support the hypothesis and ideas developed in the paper. The result shows that consumption manifested in disagreement with the genuine needs of the individual determines losses and disadvantages for the health, involves difficulties in the management of environmental problems, high-level costs for sustainable goals achievement.

Key words: promotion, consumption, sustainability, food waste, equilibrium

This paper is an approach of some important concepts and phenomena: *consumption behaviour* in an evolved society, *the marketing contribution* to a high level of consumption and the *food waste* issue. Also, environmental problems associated with dominant food production practices are intimately linked to poverty and food security.

If in terms of consumer behavior and marketing, they have been treated in detail and analytically for more than 50 years, the concept of food-waste is very recent, being the focus of theoretical studies and practical and strategic approaches, since a little over 10 years.

Through the present paper, the food-waste problem is brought to the fore from two perspectives: firstly, it is a problem related to sustainability and the dynamics of human values, and secondly, it is a consequence of actions encouraged by consumption practices and for sale that led to the consumption of more and more, including food products. The subject that will focus on the causes of this guidance will be addressed in another study, as we are now focusing on the current state of the food-waste problem in the European Union and, specifically, in Romania.

The reason we chose this orientation is that there are some desynchronizations between the

concern about food-waste and the continued promotion of very high-level food consumption.

Today's consumer is increasingly showing a supportive behavior of high-level consumption. In addition, there is an increase in the severity of the food-waste problem, so a set of remedial measures is required. In this sense, the paper will propose a set of solution with the individual and national applicability, to inspire the connection between the need to have food and to be responsible in this regard. To the end, we propose a set of solutions to regulate the imbalanced relation analysed. An obvious tendency was observed related to another kind of human society development, the acceleration of the rate of economic growth and the ever-higher generalized consumption.

The main aim of the paper is to show the present situation of food waste, and to highlight the stringent need to apply measures for improving it. As methodological approach, we proposed and used the incursion in specialty literature, data synthesis of the reports, policies and strategies for the food waste reduction and interpretation. The results show that the food consumption is normal for the human needs, but the over consumption is a problem in our society, determining the problem of the food waste management.

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MATERIAL AND METHOD

Among many goods consumed excessively, food occupies a main place, generating the impressive quantities of food waste. The phenomenon is not only individual, but with a significant impact at the community level. During the last 5 years, there has been an increase in the international interest in the amount of wasted food and its negative consequences, the reasons for household food waste with special attention to food waste related to households' behaviour, purchase habits, and life style being explored (Marangon *et al*, 2014). "Food waste is a big challenge for the sustainable food systems with environmental, economic, social, and health implications and we need to understand food waste within the routines and resources of households towards education campaigns, interventions and policies." (Ahmed *et al*, 2021). The consumers are contributors to food waste, consumers' food waste behaviour from different perspectives being investigated: factors affecting food choices, the effect of social influence on food waste etc. (Aktas *et al*, 2018). "The interaction between consumers and retailers is crucial and enables a better comprehension of food waste along the supply chain." (Albisu, 2016). Vesela *et al* (2023) emphasize the causes-effects-solutions relation, as: the vital role of knowledge to purchase the right amount of food; the manner in which food is bought affects food waste more than its price; the need to change the attitudes towards food waste; considering that the food quality is more important for educated consumers.

The unbalanced food production and food consumption relationship reveals that the interest of the subject is very different. So, food producers and retailers want to sell more and more for higher profits, and consumers want to buy more and more for higher well-being and satisfaction. However, through the specifics of human physiology and the biological ability to consume food, it is found that individuals buy more food than they can physically consume, so the difference or surplus turns into waste.

The perspectives from which the food waste concept is approached are varied and boil down to:

- understanding how much and why food is wasted by the food services, being essential to implement measures to reducing it;
- it is vital and basically to measure the amount of food waste generated, to identify the "problematic" issues of the process, to find new methods to reduce food waste and verify their effectiveness;
- an adequate monitoring system would enable to regularly measure the amount of waste produced both at the kitchen and the consumer level (Pires *et al*, 2022; Silvennoinen *et al*, 2019).

- technologies could be nowadays a key tool useful to support the food waste reduction and favourable interventions (UNEP, 2021).

Methodologically, the paper is a descriptive analysis, based on documentation, data query and interpretation. Official databases are used, with the mention that the topic of food-waste is still poorly reported, given the novelty of the problem, in recognition of it. Reference is made to the reports and the situation in the European Union and in Romania, after 2020.

RESULTS AND DISCUSSIONS

The subject of consumption, in general, that of food consumption, in particular, is part of the general theme of marketing. However, as sales, promotion techniques and, above all, intensive production technologies have evolved at a rapid pace, the interest in the analysis of consumption in relation to real human needs has increased. In this way, controversial topics have been reached, given that all statistics indicate a generalized average consumption that far exceeds human needs. In this context, the questions arise: what happens to the difference between realized and unconsumed food production, respectively how is this difference managed sustainably? The controversial note is supported by the fact that the questions cover various areas of analysis, reaching analyses of subjective and value components associated with the human desire to consume, under the pressure of factors with great influence.

Food consumption has a special specificity from the point of view of influencing factors, the psycho-emotional ones being extremely significant and with a guaranteed impact. It is necessary to mention that food waste and food lost are not synonymous. According to European Food Information Council (EUFIC, 2021):

- *Food loss* refers to any food that is discarded, incinerated or otherwise disposed of along the food supply chain and is not used for any other productive.
- *Food waste* refers to food that is discarded at the level of retailers, food service providers and consumers.

From another point of view, it must consider the food waste accounting as an essential element to design and apply efficient policies, strategies and interventions, all these being for the act of food waste reduction (Corrado *et al*, 2019).

The situation regarding the generation and management of food waste is given descriptively, with emphasis on EU countries and Romania. FAO (2003) indicates that the average consumption of food/person (Kcal/day) has increased, starting from the 60s to the present, by about 20% (from 2360

Kcal/day to 2803 Kcal/day). And, 1.3 billion tons of food are thrown away annually, wasting resources and money. According to the Eurostat (2023), the annual loss generated by unsustainable food consumption and the generation of food waste exceeds 840 billion Euro worldwide. United Nations by Food and Agriculture Organization reports, too: 1/3 of produced food lost or wasted.

Generally, the food is wasted in many ways, three of them being prevalent:

1. Fresh produce that deviates from what is considered optimal: size, shape or colour, and is removed during sorting actions.
2. Foods are discarded by retailers or consumers when it's close to or beyond the best before date.
3. Unused or leftover food that is thrown out from households or restaurants.

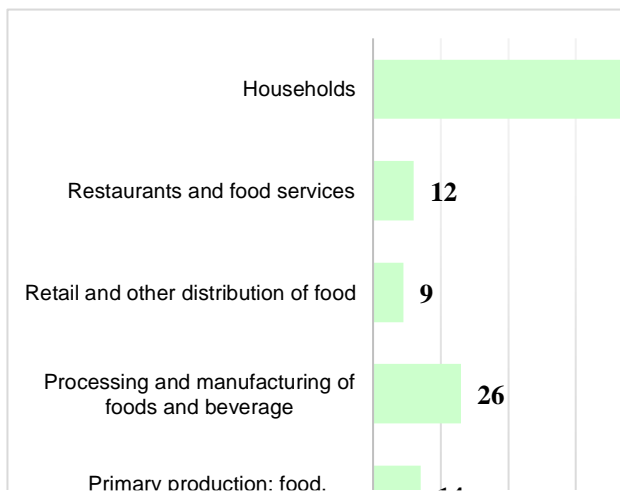


Figure 1 Food waste by sector of activities in Member State (kg/inhabitant)

Source: Eurostat (2020)

Eurostat (2020) reports that an average of 128 kilograms of food waste was collected per person within the EU in 2020, and more than half (55%) was from households, while the main productive activity from which food waste was collected was processing and manufacturing (18%). Households were the largest source of collected food waste in nearly all Member States. Cyprus and Denmark were exceptions, in that the share of waste collected from processing and manufacturing activities was greater than that from households, while in the Netherlands and Spain the share from processing and manufacturing was the same as that from households. Among the EU Member States, Spain (29.5%) and Netherlands (22.8%) were responsible for the largest shares of waste from agriculture, forestry and fishing, together accounting for more than half of the EU total. For the food and beverage processing,

Netherlands was the largest waste producer, being 22.8% of the EU total, followed by France (13.4 %) and Belgium (12.1 %).

Related to Romania, although in our country there is Law no. 217/2016 regarding the reduction of food waste, there are no data reported to Eurostat, and this is a serious problem. Estimated, the Food Waste Index 2021 indicates for Romania 70 kg/person/year in 2019 or 1,353,077 tons/year, but for our country it is given the qualification of very low confidence. Table 1 show the food consumption dynamic in Romania for 3 years.

Table 1
The food consumption in Romania (2019-2021).
Annual net average food consumption (kg/inhabitant)

Products category	2019	2020	2021	2021/2020
Cereals and cereal products	154,4	151,4	151,8	100,3
Potatoes	92,3	93,4	98,1	105,0
Legumes	4	3,6	3,8	105,6
Vegetables and vegetable products	170,2	175,0	180,2	103,0
Watermelons	22,4	17,4	19,4	111,5
Fruit and fruit products (fresh fruit equivalent)	113,3	107,6	115,3	107,2
Sugar and sugar products (in refined sugar equivalent)	25,6	25,5	24,4	95,7
Milk and milk products (3.5% fat equivalent)	259,8	260,1	263,3	101,2
Meat and meat products (fresh meat equivalent)	74,4	74,1	74,7	100,8
Fish and fish products (fresh fish equivalent)	7,8	6,3	6,6	104,8

Source: National Institute of Statistics, Food balances (2019-2021)

Given the evidence presented regarding the major problem of food-waste in the EU and in Romania, respectively since actions are already taking place at the European level to correct this problem, we further propose a set of solutions and measures that can be easily implemented and in a relatively short time (2-3 years):

1. Perfecting and using for real reports data a set of indicators to quantify with accuracy the food waste: SDG 12.3 Indicators, tracked in: a. Food Loss Index, Indicator 12.3.1(a), that measures total food waste, and losses for key commodities in a country across the supply chain, up to but not including retail; b. Food Waste Index, Indicator 12.3.1(b) that measures food waste at retail and consumer level, households and food service.

Allows countries to measure and report on food loss generated in manufacturing processes.

2. Developing and accelerated using, as a behaviour, the platforms to buy food in special conditions; nowadays exists more than 20 platforms in the world, the most used being: *Think-Eat-Save, Too good to go, No Waste, Food Cloud*. But in Romania, here there is a problem, because just one platform is available and just on 2 cities (Bucharest and Cluj Napoca). The general initiative was launched by the U.N. Environment Programme and FAO. It works to reverse food loss and food waste by providing consumers, retailers, leaders and community with advice and ways to take action to reduce their yearly food waste.

3. Composing new initiatives of marketing techniques and strategies, and educating behaviours in a new pathway: learning the meaning of 1+1 free promotions, the food price discounts, buying food in limited quantities prepared in market etc. On the whole will be obtained new consumer beliefs and habits, as planning more rigorous meals, know how to store the food, using the reserves, avoid buying too much, share extra food with others, repurpose waste where possible. But, to implement these, is need to invest educational resources.

4. Legislative measures, as clarification about how to indicate the expiry date on food. Law no. 217/2016 on the reduction of food waste published in the Official Gazette of Romania on November 17, 2016, regulates how the economic operators should proceed so that the food does not end up in the trash. The European Union take into account some changing on the label of food products, considering the difference between "Best If Used By" and "Before Use By".

CONCLUSIONS

Nowadays, there is a controversial relation between consumer behaviour and food waste: the sustainable food waste management is very vehement and the development of promotional techniques is very dynamic, too. Consumption manifested in disagreement with the genuine needs determine losses and disadvantages for the health state. And it involves difficulties in the management of environmental problems, high-level costs for sustainable goals achievement.

The European policies of European Commission which support the food waste reduction, aims to change even the attitude of consumers, by preparing food waste prevention programmes, encouraging food donation and other redistribution for human consumption, provide

incentives to apply the waste hierarchy, such as food donation. It is also important to mention the context of this topic, especially given that the "deadline" for achieving the sustainable development goals is still close, i.e. 2030.

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