

SEGMENTATION OF THE FOOD MARKET FOR
SPECIAL NUTRITIONAL NEEDS

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Abstract: *Food is an integral part of human life. More specifically, food is a human's biological and at the same time latent need that ensures the functioning of the organism. To eat properly means to enjoy the variety of foods that make the body healthy, to ensure the intake of the correct combination of nutrients with variety, their sufficient quantity with moderation, and to use reason for what we have it for. Knowing the basic principles of proper nutrition means understanding the recommendations and/or differentiating the sources of information on nutritional recommendations, having at least the most important information about food, the method of production, composition, proper handling and storage of food. It should be known that unreasonable, insufficient intake or complete absence of certain nutrients in the diet, as well as excessive intake of food or intake of food that is monotonous, has its consequences. Such a diet will result in disorders in the body and, quite clearly, these disorders can cause very serious illnesses and even completely destroy the body.*

The purpose of this work is segmentation based on key demand factors of consumers who have some dietary restrictions in the context of catering services sector. The segmentation will be based on the use and functional factors of serving food in hospitality facilities.

The research is based on the fact that today's living conditions have changed the structure of consumption and demand for food, so one of the aims of the paper is to adapt the food supply to consumers with dietary restrictions.

The collected data were processed with descriptive statistics, which includes data editing and grouping, data frequency display, data relative frequency and percentages, graphical and tabular data display. In the following, the results of the research will include a presentation of the survey and interview results.

Key words: *segmentation, food market, catering services sector, special nutritional needs*

INTRODUCTION

Foods and drinks are an integral part of human life. They are human's biological and at the same time latent need that ensures the functioning of the organism. Today, food is a social instrument. People meet over drinks or lunch to start interpersonal relationships. Since food has moved out of the sphere of necessity into the general social context, it has actually become an even more critical social factor than it has ever been before [8].

The question of defining the term food is subject to different opinions and depends on the perspective with which the term is thematized. Food as a concept is sometimes identified with the concept of nutrition. However, in contrast to food, nutrition is defined as the introduction into the body of nutrients necessary for energy production, tissue building and the normal functioning of vital functions. According to Alibabić and Mujić [1], proper nutrition implies the intake of all necessary nutrients (carbohydrates, fats, proteins, vitamins, minerals and water), moderate in quantity, diverse, appropriate for age, physical and mental constitution, work and intellectual efforts, in accordance with the climate and the working environment in which one lives, represented and used in an appropriate balance to maintain optimal health.

Every nutritional need also depends on the cultural level, the need for cultural living, the way and rhythm of life, and the existence of the basic material conditions for its satisfaction. The way individuals or groups choose, select, use and enjoy food is a reflection of their eating habits. For eating food, as for many other things, it is considered

that, once acquired in childhood, customs, behavior and preferences form models resistant to change in adulthood [11].

The idea of the social character of food and nutrition is based on the fact that food supply and nutrition is necessarily a collective act, which dates back to the beginning of the formation of first human communities [4].

The transformation of modern food systems continues the trend of mass production of food as well as the processes of commercialization and branding of food. However, today we are also faced with new processes such as the more intense influence of demand, segmentation of the food market, new conflicts between actors, pronounced interdependence of systems, etc. [3]. As for eating habits, they are systems of cultural, social and economic practices related to meeting food needs [12]. The focus of food habits is on the cultural context, that is, on eating habits as part of everyday life that are culturally and historically determined [14].

Today, it is characteristic of nutrition that its traditional frameworks have fallen apart due to a change in the rhythm of daily work. They adapt to the accelerated rhythm of life, so it is increasingly common to eat while working, without choosing an adequate meal format. Current food trends can be characterized by different keywords such as speed, convenience, health, quality or seeking adventures. It was precisely the accelerated way of life that led people to often reach for the so-called fast food and poor nutrition, which led to the appearance of various chronic diseases and disorders. According to Krešić [9], the most common chronic non-communicable diseases linked to diet include: obesity and excess body weight, diabetes, cardiovascular diseases and various types of cancer. With these diseases, an adequate and adapted diet is essential in order to keep them under control and to reduce their negative effect on the body. In parallel with the increase in the frequency of chronic discontinuous diseases that are linked to diet, awareness of the impact of food on health is also growing today. This is why there are more and more consumers who, when choosing food, take into account its nutritional value and its impact on health [6, 7]. Increased awareness of the connection between health and nutrition is the basis for numerous current trends in nutrition. There is a noticeable increase in awareness of the impact of food on health, personalized nutrition, protection of the authenticity of food, consumption of organically grown food is generally in line with the principles of sustainable development [2].

Krešić [9] states that consumer behavior is determined by their attitudes, which are strongly influenced by mega trends that have the potential to have a strong impact on consumers' lives and behavior. The trends that define consumer behavior are health, practicality and personal satisfaction [13]. Current trends in nutrition are organic nutrition, Mediterranean nutrition, vegetarian, macrobiotic nutrition and food preparation for special dietary needs [15, 16].

Food for special nutritional needs is food that, due to its special composition or special method of production, is clearly different from food for normal nutrition, and due to its stated nutritional properties, is suitable for nutrition. Recently, it is more recognizable through the term so-called "free from" food. "Free from" food is food without gluten, grains or lactose. In addition to the above, "free from" food also includes food without fat, sugar, nuts, flour, salt, preservatives and additives, yeast, genetically modified organisms (GMO), eggs and meat. This type of food is intended for those who suffer from allergies, intolerances or other health problems that require the avoidance of certain food ingredients. This food does not contain flavor, color and texture enhancers and is therefore perceived as completely natural. Interest in "free from" food is growing even among people who do not need this type of diet for medical reasons.

Recognizing the fact that segmentation is based on the idea that individuals have different needs, preferences and motivations for behavior, it is clear that different consumer segments require different approaches in marketing communication and actions. Consumers increasingly have a different awareness of the sustainability of consumption and behavior when buying food, which strengthens their overall responsibility [5].

In this sense, the goal of the research is to provide insight into the segmentation of the hospitality market for consumers who have some dietary restrictions.

The purpose of the paper is to show that the interest in "free from" food is growing more and more and represents a serious market and a new opportunity for conventional food providers.

MATERIALS AND METHODS

The fundamental starting point for this research is the fact that today's living conditions have changed the structure of consumption and demand for food, so one of the goals is to adapt the food offer to consumers with dietary restrictions. The purpose of this research is to investigate how certain factors of food supply on the market can be adapted to the demand of emerging consumer markets for food with special nutritional needs. For this purpose, research activities were undertaken, such as a survey of respondents on attitudes towards intolerance or allergy to food and drink in hospitality facilities, with an emphasis on food and drink for special dietary needs.

The collected data were processed with descriptive statistics, which includes editing and grouping of data, displaying data frequency, relative frequency of data and percentages, graphical and tabular display of data.

The survey was conducted on a sample of 439 respondents from the Koprivnica-Križevačka and Virovitica-Podravine counties in the Republic of Croatia. The survey consisted of closed-ended questions, i.e. questions with enumeration options as well as questions with intensity options in the form of a Likert scale. The questions related to special dietary needs and to the experiences of respondents regarding the offer of food and drinks for special dietary needs in catering facility that offer food and drinks.

The sample on which the research was conducted was obtained by the method of random selection, and the main criterion was the age and place of residence of the respondents from the investigated counties.

RESEARCH RESULTS

Respondents of both sexes took part in the survey. There were 28.7% of male respondents (126 respondents), 70.1% of female respondents (308 respondents), and 1.1% did not want to declare their gender structure (5 respondents). According to the age structure, the respondents were divided into five groups. The first group includes respondents from 18 to 28 years old (27.1%), the second from 29 to 38 years old (21.9%), the third from 39 to 48 years old (31.7%), then from 49 to 58 years old (13.9%) and finally respondents over 58 years old (5.4%). The majority of respondents come from urban areas of the investigated counties (77.7%), while 22.3% are from rural areas. According to the educational achievement, the respondents were divided into three groups, so the majority of respondents answered that they had completed academic education, as many as 72.0% of them (316 respondents), 27.3% of respondents had completed secondary school, while 27.3% of respondents had completed primary school had only 0.7%, that is, only 3 respondents. Most respondents are employed full-time, 74.3% of them (326 respondents). 2.9% were employed part-time, and 22.8% of them were unemployed.

In the next part of the research, the questions were related to the special dietary needs of the respondents, which wanted to find out how many respondents have some

problems related to food and drink. When asked about food problems, the majority of respondents answered that they had no problems related to food sensitivities or allergies. However, slightly less than a third of respondents have some problem with food, and the most common problem they point out is lactose intolerance (30%), histamine sensitivity (13%), nut allergy (12%), diabetes, milk protein allergy and celiac disease (10% each) and other listed problems can be seen in Table 1.

Table 1.

Respondents' food-related problems	
Related problem	Share (%)
Lactose intolerance	30%
Sensitivity to histamine	13%
Allergy to nuts	12%
Diabetes/insulin resistance	10%
Allergy to milk proteins	10%
Celiac disease	10%
Allergy to eggs	5%
Allergy to fish and crustacean products	2%

Source: Authors, 2023

It can be said that a third of the randomly selected respondents have some problem related to food.

The next question in the survey was about the frequency of food consumption in catering establishments. The largest number of respondents answered that they consume food in catering establishments on a monthly basis or only a few times a year. The fewest respondents answered that they consume food in catering establishments every day or that they never consume food in catering establishments. If all data are added up, it can be calculated that respondents consume food in restaurants on average 32 days a year.

When asked whether they, their family members or friends/acquaintances with whom they were in a catering establishment ever had problems with intolerances or allergies to food and drink in those establishments, 90% of respondents answered that they had never had such problems.

Considering that today an increasing number of people have some kind of allergy or intolerance to food, catering facilities should have food for special dietary needs in their offer, and when preparing it, be careful not to cause contamination, because consumers with intolerances or allergies can lead to serious health problems.

Table 2. shows that respondents feel uncomfortable when they have to ask about allergens in a restaurant, but they think that restaurants should label allergens more appropriately on their menus. They also believe less the knowledge and expertise of service staff in restaurants when asking about allergens. Therefore, they do not agree with the statement that people with special dietary needs can safely consume food and drinks in catering facilities and that restaurants are putting more and more emphasis on properly serving people with special dietary needs. What the respondents agree with is that "free from" products can be obtained more easily in the county seats and that, whenever they can, they will consume their own prepared food and drinks. According to all of the above, it can be concluded that the majority of respondents express apprehension related to serving food and drinks for special dietary needs in catering facilities.

Although the vast majority of respondents declare that they had no major inconveniences in terms of intolerance while eating in restaurants, some shortcomings are still mentioned, related to insufficiently clear communication of the presence of allergens on the menus or the inexperience of the staff in this same regard.

Table 2.
Respondents' attitude towards the aforementioned claims about special dietary needs
in catering establishments (N = 439 respondents)

Conditions	Average	Standard deviation	Median
I feel uncomfortable when I have to ask about allergens in a restaurant.	2,8	0,447	3
Restaurants appropriately mark allergens on their menus.	2,9	0,542	3
When consuming in restaurants, I am concerned about the possibility of cross-contamination between food and drinks for special nutritional needs (eng. "free from") and other food and drinks.	3,0	0,732	3
Nowadays, people with special dietary needs can safely consume food and drinks in restaurants.	3,1	0,808	3
When I go to a restaurant I haven't been to before, I worry about whether there is food or drink suitable for special dietary needs ("free from").	3,1	1,033	3
I insist on restaurants that offer food and drinks that suit my special dietary needs.	3,1	1,044	3
I trust the knowledge and expertise of restaurant service staff when I inquire about allergens.	3,2	1,050	3
Restaurants place increasing emphasis on properly serving people with special dietary needs.	3,3	1,107	4
"Free from" products are more easily available in bigger cities than in other county settlements.	3,6	1,123	4
Whenever I can, I consume my own prepared food and drink.	4,6	1,201	5

Source: Authors, 2023

Table 3. shows that the respondents agreed with all the above statements related to better information in catering establishments about allergens and "free-from" food, and that restaurant .staff should take more care of guests with special dietary needs.

Table 3.
The respondents' attitude towards the stated claims about communication with guests and about labeling "free from food" in catering facilities (N = 439 respondents)

Conditions	Average	Standard deviation	Median
Allergens in food and drinks must be marked not only with a sign or picture, but also in text form in menus and drink lists.	3,2	0,447	3
Staff in restaurants should provide information about food and drink for special dietary needs ("free from").	3,3	0,479	3
Staff in restaurants should suggest alternatives to food and drink for special dietary needs ("free from").	3,3	0,498	3
Restaurants should take care of their guests with special dietary needs (communicate through advertisements, posters, signs, etc.)	3,3	0,503	3
The menu and drink list should include information on which allergens the food or drink contains.	3,4	0,677	3
Menus and drink lists should clearly indicate which foods for special dietary needs ("free from") are offered to guests with certain food intolerances or allergies.	3,4	0,711	3

Source: Authors, 2023

Research indicates that communication about allergens should be clearer and stronger. Also, the need for greater education of the staff of catering facilities in relation to knowledge and understanding of the issue of food intolerance is mentioned. Furthermore, catering facilities must take into account that this segment is fast growing.

CONCLUSIONS

People who have a problem with food or drink consumption often feel uncomfortable in restaurants, and are not sure if special cutlery is used to prepare their meal. Contamination of cutlery used by chefs in catering establishments occurs due to the technical conditions of the kitchen, uneducated staff, small investments by the owner in the education of workers and due to the size of the space where the chefs stay. In order to avoid such situations, it was concluded that staff in catering establishments should be educated, as well as people with special dietary needs.

The majority of respondents agree with the statement that restaurants inappropriately label allergens on their menus, and that they consume their own prepared food and drinks whenever they can.

Guests are looking for top-quality food, that is, food grown on family farms, they want to know where the product comes from, who the producer is, etc. Therefore, restaurants are increasingly striving to prepare dishes with ingredients that come from local producers, preferably from organic farming. Therefore, the main conclusion of this research is that there is undoubtedly a new segment of the catering services market that is based on the emerging trend of food consumption, i.e. it stems from the special nutritional needs of consumers, which were either the result of a need or a reflection of conscious attitudes regarding health and the prevention of unwanted health problems. consequences related to the individual. This segment is relatively large, almost 30% of respondents declare that they have some kind of food intolerance, and on average 32 times a year they

have lunch outside the home. Although the vast majority of respondents declare that they had no major inconveniences in terms of intolerance while eating in restaurants, some shortcomings are still mentioned, related to insufficiently clear communication of the presence of allergens on the menus or the inexperience of the staff in this same regard.

It is clear that the basis of the segmentation of this new emerging market is primarily certain dietary restrictions of the individual. This kind of segmentation is therefore obviously based primarily on psychographic, and especially behavioral components of an individual's behavior that stem from two basic motives, concern for one's own health and following trends on the market. In this sense, marketing organizations, and especially those in the domain of food preparation and offering, in such circumstances, can see new markets as new opportunities for offering products of new added value, because this segment represents a significant economic potential. Recognizing the opportunity for segmentation in this domain provides an opportunity for diversification and stronger branding, especially for small and unconventional food producers. The food market is normally a saturated segment, so this is an opportunity primarily for small and innovative producers, and very often also those who flirt with sustainable production methods, offering healthier and therefore more attractive products..

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