

Consumers food preferences – influencing factors and methods of evaluation

Monica Negrea^{1*}, Ileana Cocan¹, Ersilia Alexa¹, Diana Obistoiu²

¹Faculty of Food Engineering, Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timisoara, Calea Aradului No. 119, 300645, Timisoara, Romania.

²Faculty of Veterinary Medicine, Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timisoara, Calea Aradului No. 119, 300645, Timisoara, Romania;

Background

Consumer behavior refers to the study of the decisions of individuals and groups regarding the selection, purchase, use, and disposal of goods or services to meet their needs and desires. More specifically, it is the study of how consumers make decisions about what they need, want and how to buy, use and dispose of goods. This study presents a comprehensive review of the factors that influence consumer behavior and the main methods of determining consumer food preferences. The factors influencing the consumers food preferences can be structured in two categories: endogenous and exogenous. The endogenous are cultural, social, including status or social class, reference groups and family relationships; and exogenous are needs, motivations, perceptions, learning processes, attitudes, self-image and personality types.

Consumers buy image, comfort, nutrition, using their senses, sensory sensitivity and sensory properties. Therefore, food products evaluation methods are an important tool that should be used in the determination of food preferences. The most important methods for evaluation of consumers food preferences are *discrimination test*, *grading tests* and *affective tests*.

Keywords: consumers, food preferences, factors, grading tests, affective tests.

1. Introduction

Assessing the preferences of food consumers is a complex and topical field. Consumer behavior refers to the study of consumers and the processes involved in choosing, using (consuming), and disposing of products and services, including consumers' emotional, mental, and behavioral responses [16]. Another definition states that consumer behaviour is the process whereby individuals decide whether, what, when, where, how and from whom to purchase goods and services. The behaviour of food consumers is influenced by exogenous and endogenous factors and goes through different stages, including problem recognition, information seeking, evaluation of alternatives, purchasing decision, product consumption and post-purchase behaviour [19]. Previous studies have been made to study the consumer's behavior. Rabin, 1998 [24], pointed out in his studies, that consumers select or eliminate food based on several important attributes, and do not rely on the use of a systematic procedure [24].

Yeung and Joe (2001) [35] emphasized that food safety is a major public interest issue, and the food industry needs to identify and review the factors that influence consumers' perceptions of food safety risks and the likely impact on purchasing behavior. Other researchers have tried to find alternatives to improve understanding of consumer behavior, which has led to the idea that knowledge from several sciences, such as psychology, nutrition, biology, sensory, chemistry, and economics, must be combined to understand food choice behavior. These studies aim to analyze the impact of food quality attributes on consumer preferences and are asked to evaluate the sensory quality attributes (external and internal) in order to rate or rank the product [3]. Other studies have looked at what sensory attributes have contributed to consumer acceptance / rejection of a food product and the level of emotional status evoked in consumers after tasting the products, taking into account the age of the participants, also [28].

In other study, conducted by *Verdurme and Viaene (2003)* [33] was developed a model suggesting the differences between premium branded food products and generic ones in terms of attitude and purchase intentions. *Ramasamy A. et al., (2005)* [25] highlighted that purchasing behavior can be influenced by awareness and attitude towards the product.

2.Factors influencing behavior of food consumers

Consumers are the last step in the food production chain, is therefore important to understand the factors affecting consumer behavior. In this review we will present these factors, which can be structured in two categories: endogenous and exogenous.

Exogenous factors act from outside of the consumer, and endogenous ones are related to the human psyche. Both exogenous and endogenous factors act in combinations, with different intensities and very wide variations from one person to another [7].

2.1.Exogenous factors

Main exogenous factors that have a strong impact on consumer behaviour are: cultural and social, including status or social class, reference groups and family relationships.

Culture is the most powerful exogenous agent for influencing consumers' buying behaviour. Culture is a set of values, symbols and ideas, created over time, by society that lead to a certain type of behaviour being passed down from generation to generation. It explains why some products sell well in some regions or groups, but not as well elsewhere. In addition to purchasing decisions, culture also affects how consumers use the products they buy and how they dispose of them. The use of products helps traders position their products differently in each market, while the effects of culture on product disposal may lead governments to adopt more effective recycling and waste reduction strategies [9].

The definition of culture comprises three key aspects: 1) the first refers to the fact that culture is created by man: ideas, behaviour patterns, economic and social actions and people's choices form culture; 2) the second aspect pointed out that, culture is lasting, develops over time, passes almost unchanged from generation to generation, and

society's values tend to be permanent; 3) the third aspect refers to the fact that cultural influences have tangible but also intangible results. Language and morphology are observable products of culture and beliefs and values are the result of the cultural environment in which individuals live [5]. *Subculture* is of great importance in the study of consumer behavior and is organized on ethnic, religious, age or geographical criteria. The main groups of subcultures that influence an individual's buying behavior are: religious; racial; ethnicity; geographical [28].

Social status is an important factor in the process of market segmentation. Several studies have shown that individuals who are part of the same social group tend to have similar behaviors, live in the same houses, in the same area, stock up on the same type of supermarket and generally have the same lifestyle. The criteria used to stratify the population into social classes or reference groups usually include: occupation, education, income, and lifestyle [18].

The reference group refers to the group to which an individual belongs influencing their buying behavior and opinions by conveying the rules and expectations about the role they should play. Reference groups are groups that people refer to when assessing their own qualities, circumstances, attitudes, values, and behaviours.

There are three distinct groups:

- The group to which the individual belongs;
- The group to which the individual aspires;
- The group in which the individual has perspectives to be integrated [2].

The family is considered a reference group being an important group that influences the buying behaviour of its members. The core family refers to the basic unit of a family, made up of parents and children. The extended family includes, in addition to parents and their children, all relatives, grandparents, aunts, uncles, cousins [29]. The family often forms a decision-making unit in which, each member has a different role, depending the budget allocated for shopping, for example, the youngest members of the family can initiate the purchase process by requesting cereal flakes for breakfast. The father, depending on the budget, can decide if these products can be bought, and the housewife (mother) can contribute to the decision to purchase them, by choosing the brand and the store where she buys them. When the extended family

becomes involved in the purchasing decision, the decision-making unit becomes wider and the roles of the family members more diverse. When traders address the family, they need to know what role each member plays. Thus, cereal producers can promote cereals through cartoon channels, addressing children, because they watch these programs, while in supermarkets the promotion is intended for housewives, because they choose the brand [13].

2.2. Endogenous factors

Endogenous factors influencing consumer behaviour refer to the internal influences of the individual. These are psychological and refer to needs, motivations, perceptions, learning processes, attitudes, self-image and personality types [7].

Needs and motivations. Once a person recognizes a need, the establishment of motivations begins. The moment a person becomes aware of the difference between the current state and the desired state, the *recognition of the need* is manifested. For example, a housewife buys refined superior rice (current condition). Being aware of the lack of vitamins in this product and concerned - as a wife and mother - with the health of the family (desirable state), she is motivated to buy whole basmati rice, with high nutritional value. Specifically, a need is a noticeable difference between the *current state* and the *desired state*, being important enough to stimulate the act of buying [1].

Several factors may be responsible for activating needs awareness: emotional, psychological or social. Motivations depend on different situations, so the reasons that influence behavior in one situation may differ in another. This complex mechanism regarding action of motivation has been explained by psychologists, sociologists, economists, etc., leading to theories of motivation [2].

The most important theories of motivation are: Maslow's theory; McGuire's theory; Equilibrium theory, Self-concept theory; Attribution theory. The equilibrium theory consist in cognitive dissonance, Kurt Lewin's psychological field theory and Osgood's congruence [6].

Maslow created a hierarchy of motivation for human needs which includes the need for love and belonging, understanding and knowledge, aesthetics and self-actualization. In the levels of these five needs, the person does not feel the second need until

the demands of the first have been satisfied or the third until the second has been satisfied, and so on [34].

McGuire divided the motivation into two main categories: cognitive and affective. Cognitive motivations include need for Consistency, for Attribution, to Categorize and the need for Objectification while affective motivation appear as a result of awareness for Tension Reduction need, Expression need, ego defense need and reinforcement need [10].

Perception refers to the interpretation of stimuli by the consumer. "Individuals act and react based on their perceptions, not based on objective reality. For traders, consumer perception is more important than knowing their objective reality) [28]. Perception is a process that begins with consumer exposure and attention to marketing stimuli and ends with consumer interpretation. Information processing refers to a series of activities through which stimuli are perceived, transformed into information and stored. Hawkins Del I. Mothersbaugh David L., in 2010 [11], developed a model of information processing with four major stages: exposure, attention, interpretation and memory. The first three of these are *perception*.

Perceptual selectivity refers to the selection of the necessary products, without losing orientation in a crowded distracting environment. This selectivity is influenced by two important factors, which can increase or decrease the likelihood of a stimulus being perceived: 1) previous consumer experience (what is expected to be seen) and 2) current consumer motivations (needs, interests, desires, etc.) [21].

Learning is a change, which may or may not be observed in a person's behaviour, following the accumulation of experience, which leads to the possibility of an act being repeated. Research has shown that most consumer behaviour is learned. There are several relevant techniques for explaining the learning process:

- Classical learning technique, by Pavlovian type conditioning;
- Instrumental learning technique;
- Cognitive learning technique [4].

Learning is any change in the content or organization of long-term memory or behaviour and is the result of information processing. The ability to keep in our minds only relevant information and

the elimination of those that are not of interest is known as selective retention. We keep in our memory only selective information that interests us [17].

Attitude indicates knowledge, feelings and actions intended for the given stimulus. A certain attitude provides a series of clues for marketing a product. They predict future acquisitions, redesign the marketing effort and make the attitude more favourable. An attitude is a lasting organization of motivational, emotional, perceptual and cognitive processes in terms of an aspect of our environment. It is a predisposition learned to respond constantly, favourably or unfavourably, to a given object [11].

Kotler, P., and Keller K.L. (2012) [19] define personality as "... a set of human psychological traits that lead to relatively consistent and lasting responses to environmental stimuli ...".

Personality is a very important factor that has been studied in consumer behavior and is constantly changing due to the influences of social, cultural and environmental factors. Impulse buying behavior is generally influenced by personality traits that are experienced by consumers in its purchases [8]. Personality traits influence both the perceptual process and the motivational and implicitly the behavioral one, but the nature of these connections and the sequence of their appearance cannot be clearly explained. According to researchers there are the following personality traits: loyalty to certain products and brands; attitude towards goods and services; product image formation among consumers; reaction to the appearance of product packaging and products promotion [27].

3. Methods for assessing food consumer preferences

The sensory evaluation of a product, which includes both the analytical sensory evaluation performed by a panel of experts and the affective test performed on consumers, leads to obtaining more information about the analyzed product, its quality and verification of factors influencing its acceptability by consumers [30].

There are a number of methods by which the preference of the food consumer can be determined: *discrimination test*: Triangle, Duo-trio, Two out of five; *grading test*: ranking test, scoring test (Likert Scale), Fishbein-Rosenberg method and *affective tests*: ranking test, labeled affective magnitude

(LAM) scale, best-worst scaling and hedonic scoring test [31].

3.1. Discrimination tests

Among the many areas covered by sensory science, the evaluation of consumer preferences is an important one. Typically, consumer preferences are measured by the sensory tests.

Pair test

It consists of two samples (A and B) which are presented to the panelist and which are examined only once or repeatedly. The following questions are asked:

- if A and B are different ?;
- if they are different, what is the difference ?;
- if A is known (standard) how does B differ from A?

This test can be used successfully in qualitative receptions to control the homogeneity of batches, to verify the identity of preparation and preservation, etc. [22].

The duo-trio test

It consists of the presentation of three samples (A, B and C) of which one (A) is known and serves as a reference or control sample. In this case, the following questions arise:

- if separately B and C differ from A ?;
- if B and C are similar ?

The duo-trio test is used in laboratory tests, but also in the stages of receiving raw materials, when the same food products are obtained by different technological processes, when new products appear, new types of packaging and packaging methods [22].

Triangle Test

It also includes three samples (A, B and C), but unlike the duo-trio test, two samples are identical and one is different. First of all, the two identical tests must be recognized in order for the other answers to be taken into account. Theoretically, three equalities $A = B$, $A = C$ or $B = C$ are possible, which leads to six combinations; if we mark the products with T and E then the six possible combinations are: TEE, ETE, EET, TET, ETT, TTE. The order of presentation of the samples is not pre-established, so the taster can start with any sample he wants and has the freedom to repeat the tasting.

More conclusive results are obtained if the reference sample with which the taster is familiar is chosen as the reference. The triangular test is one of the most used working tests, with which a good certainty is obtained, eliminating the answers given at random. [31].

3.2. Grading test

Ranking tests

The ranking test can be used to assess noticeable differences between more products depending on the difference intensity, and a scoring test may be used to determine the specific intensity of the products sensory characteristics. Quotation tests consist in adopting a system of notation (symbolization) of sensory perceptions. These are the transposition of hedonic decline used in psychology. The most used signs are:

+	-	0	=	
0	1	2	3	
0	5	10	15	20.

In practice it gave good results numerical rating from 1 to 9, without 0 or 10, divided into three categories: 1 to 3 = lower, 4 to 6 = medium and 7 to 9 = higher [22].

Likert scale

The Likert scale measures appreciation of information. Example: "Product X tastes good." Consumers can choose between these statements: total agreement, agreement, indifference, disagreement and total disagreement. To process the information, the five steps are given numerical values +2, +1, 0, -1, -2. Compared to a certain number of properties of a product (taste, packaging, price, etc.) are summarized in affirmative sentences, the opinions of a certain number of respondents. Next, the score (S), for each criterion and the overall score obtained by this product will be determined, in the opinion of the interviewed consumers. The partial score obtained by each characteristic is calculated using the following formula:

$$S_{\text{criterion}} = \frac{n \cdot (+2) + n \cdot (+1) + n \cdot 0 + n \cdot (-1) + n \cdot (-2)}{\text{total no. of respondents}}$$

Following the centralization of the data, on a scale from -2 to +2, it can be appreciated which criterion is important for consumers. If several people score -1 and -2, a negative score will be obtained for that criterion.

The global score recorded by the analyzed product is calculated as a simple arithmetic mean of the partial scores.

$$S_{\text{global}} = \frac{S_{\text{criterion}_1} + S_{\text{criterion}_2} + S_{\text{criterion}_3} + \dots + S_{\text{criterion}_n}}{\text{total no. of criterion evaluated}}$$

With the help of the Likert scale, foods can be compared with each other, based on the overall score obtained by each food product [23].

Fishbein-Rosenberg method

The Fishbein-Rosenberg model is one of the most complex scaling models. By using this method, one can highlight a person's attitude towards the indices of some products that are being compared. Determining the size of the attitude of the respondents is based on a model that takes into account the assessments of the subjects on the importance of the parameters underlying the characterization of a particular product, but also the assessments (based on scales) on these characteristics [26].

The calculation relationship for determining this is:

P_{jk} = attitude of subject k for element j;

W_{ik} = evaluation of topic k on importance relative to characteristic i ($\sum W_{ik} = 1$);

O_{ij} = the extent to which element j satisfies the subject's characteristic I [26].

After calculating the grade obtained (thus measuring the attitude) by the different elements compared, a normalization of the results can be achieved, by dividing the grade obtained by each element to the sum of the grades of all the elements in the comparison. In this way, the weight of each element in the preferences of the studied subjects can be determined.

All of these scaling methods use a single number, a single dimension to measure a particular variable. These methods start from the premise that the attitude is one-dimensional, so that "the positive and negative factors are compensated, in order to reach a balance" [32].

However, in many cases we can talk about an attitude that is not one-dimensional, but multidimensional. In this case, it is necessary to create multidimensional scales through which to measure such an attitude.

3.3. Affective tests

Hedonic test

The 9-point hedonic scale (from 1= dislike extremely to 9= like extremely) is the most internationally accepted and widely used. This scale was developed in 1947 at the Quartermaster Food and Container Institute for the U.S. Armed Forces. With this scale, word descriptors are used along with numbers that facilitate the interpretation of the mean values of the responses in terms of the degree of like/dislike [20].

In table 1, is presented a model of sheet for 9-point hedonic scale evaluation for following characteristics: appearance, aroma (smell), texture, taste, general acceptability. First the identification data of the respondent are required: name and surname, age, gender, occupation:

Table 1. Sensory analysis sheet (9-point hedonic scale) – model [20]

Sample	Sensory characteristics analyzed				
	Appearance	Aroma (smell)	Texture	Taste	General acceptability
n1					
n2					
.					
.					
nx					

*9-point hedonic scale (1 = extreme dislike, 5 = neither like nor dislike, 9 = extreme like). The maximum score that can be awarded for each category is 9 points.

Labeled affective magnitude (LAM) scale

As an alternative to the 9-point hedonic scale, the LAM (*affective magnitude*) scale and the *best-worst scaling* are two distinct approaches, the first being an example of a *direct* approach to sensory scaling, and the second is an example of *indirect* approach.

Schutz and Cardello (2001) [36] and Cardello and Schutz (2004) [37] extended the use of labeled magnitude scales to ratings of food liking /disliking. They scaled the semantic meaning of word phrases that express feelings of like and dislike, including all of the phrases used in the 9-point hedonic scale as well as the phrases “greatest imaginable liking” and “greatest imaginable disliking.” By locating these phrases along a visual analogue scale in accordance with their determined semantic meaning, they created the labeled affective magnitude (LAM) scale of liking (Fig. 1) During the application of this scale (LAM), it has been shown that consumers can use this scale to evaluate the affective attributes of stimuli with a higher sensitivity, ease and reliability than the 9-point hedonic scale. The LAM scale and its derivatives are currently used in several laboratories as an

efficient method for scaling food according to the degree of appreciation / non-appreciation.

The labeled affective magnitude (LAM) scale, according to Jaeger, Sara & Cardello, A., (2009) [20] is shown in figure 1.



Figure 1. Labeled affective magnitude (LAM) scale [15]

Best-worst scale

The best–worst approach extends the pair method for preference testing by asking panelist to choose the best and the worst stimuli from a set of three or more stimuli (Fig. 2). By requiring subjects to choose the best and worst, or smallest and largest, most and least liked, etc. best–worst scaling provides more information than paired comparison methods [15]. Although best–worst scaling can be used to determine preferences for complex attitudinal dimensions, recent studies have applied the method to measuring food and meal-related properties and liking [14].

In table 2 is presented a model for best-worst scaling. When using best-worst method a number of tables are arranged in sets of 4 types of food products. The consumer’s points their preferences by checking the one *most* like and one *least* liked type of food product, as in the table 2 [15].

Table 2. Model of best-worst scaling choice set [15].

Products I like least	Type of food product	Product I like most
x	Tofu	
	Bananas	
	Basmati rice	
	Pizza Capriciosa	x

The best-worst scaling has been shown to lead to better discrimination between products compared to other similar test models and is easy to use by consumers because it simply requires them to choose the best liked and worst liked products in a series. For food-related applications, there is also some evidence that the data obtained using the best - worst scaling provides a better sensitivity to product differences than direct scaling measures, while being easy for consumers to use [12].

4. Conclusions

Consumer behavior refers to a process in which consumers select, buy and use products and services to meet the needs and desires. First, consumers try to find out what products they want, consume, and then select only those products that guarantee greater effectiveness. Consumers are the last step in the food production chain, is therefore important to understand the factors affecting consumer behavior, which can be endogenous and exogenous. Exogenous factors act from outside of the consumer, and endogenous ones are related to the human psyche. Both exogenous and endogenous factors act in combinations, with different intensities and very wide variations from one person to another. Endogenous factors refer to the internal influences of the individual. These are psychological and refer to needs, motivations, perceptions, learning processes, attitudes, self-image and personality types.

The most important methods for evaluation of consumers food preferences are *discrimination test*: Triangle, Duo-trio, Two out of five; *grading test*: ranking test, scoring test (Likert Scale) and Fishbein-Rosenberg method and *affective tests*: ranking test, labeled affective magnitude (LAM) scale, best–worst scaling and hedonic scoring test.

Compliance with Ethics Requirements. Authors declare that they respect the journal’s ethics requirements. Authors declare that they have no conflict of interest and all procedures involving human or animal subjects (if exist) respect the specific regulation and standards.

Scientific material support for the didactic activity within the Faculty of Food Engineering, Banat's University of Agricultural Sciences and Veterinary Medicine “King Michael I of Romania” – Timișoara

References

1. Barbopoulos I., Johansson L.O., *The Consumer Motivation Scale: A detailed review of item generation, exploration, confirmation, and validation procedures*, **2017**, 13, Pages 88-107, ISSN 2352-3409.
2. Cătoi I., Teodorescu N., *Comportamentul consumatorului, Teorie și practică*, **1997**– Ed. Economică, București.
3. Combris P.P., Bazoche E., Giraud-Héraud S.Issanchou, Food choices:What do we learn from combining sensory and economic experiments? *Food Quality and Preference*, **2009**, 20(8), 550-557.
4. Datculescu, P., *Cercetarea de marketing – Cum pătrunzi în mintea consumatorului, cum măsoari și cum analizezi informația*, **2006**, Editura Brandbuilders. București.
5. Desmond J., *Consumer behavior*, **2003**, J.W. Arrowsmith Ltd. ISBN 0-333-94992-7.
6. Durmaz, Yakup, Diyarbakırlıoğlu, Ibrahim, A Theoretical Approach to the Strength of Motivation in Customer Behavior. *Global Journal of Human Social Science*. **2011**, 11(10), pp. 37-43. Online ISSN: 2249-460x & Print ISSN: 0975-587X
7. Frewer Lynn, van Trijp H., *Understanding consumers of food products*, **2007**, Woodhead Publishing Limited, Cambridge, ISBN 978-1-84569-009-0.
8. Gangai Khagendra Nath, Agrawal Rachna, The Influence of Personality Traits on Consumer Impulsive Buying Behaviour, *International Journal of Marketing and Business Communication*, **2016**, 5(1), pp.35-42
9. Hammad, M., *Antecedents of Customers’ Helping Behaviour toward Other Customers: A C-to-C Context*. **2016**, 10.13140/RG.2.1.4053.9763.
10. Hawkins D, Mothersbaugh D, Best R., *Consumer Behaviour: Building Marketing Strategy*, **2007**, New York City: McGraw-Hill.
11. Hawkins, Del I., Mothersbaugh D.L., *Consumer behavior: building marketing strategy*, **2010**, 11th ed. McGraw-Hill/Irwin Publishing House, ISBN-13: 978-0-07-338110-7.
12. Hein Karen, Jaeger Sara, Carr Bernard, Delahunty Conor. Comparison of five common acceptance and preference methods. *Food Quality and Preference*. **2008**, 19, 651-661.
13. Hoonsoon D, Puriwat W., The Effect of Reference Groups on Purchase Intention: Evidence in Distinct Types of Shoppers and Product Involvement. *Australasian Marketing Journal*. **2016**, 24(2), 157-164.
14. Jaeger, S. R., Jørgensen, A.S., Aaslyng, M.D., Bredie, W.L.P., Best–worst scaling: An introduction and initial comparison with monadic rating for preference elicitation with food products, *Food Quality and Preference*, **2008**, 19(6), 579–588
15. Jaeger, Sara & Cardello, A., Direct and indirect hedonic scaling methods: A comparison of the labeled affective magnitude (LAM) scale and best–worst scaling. *Food Quality and Preference*, **2009**, 20, 249-258.

16. Jisana T.K., *Consumer Behaviour Models: An Overview*, **2014**, Volume 1, Issue 5, Publishing House Sai Om Publications Sai Om Journal of Commerce & Management, Online ISSN-2347-7563
17. Khan M., *Consumer behavior and advertising management*, **2006**, New Age International Publishers, ISBN: 978-81-224-2552-9.
18. Kotler P., *Principles of marketing*, Editia a X-a, **2004**, Editura Teora, București, ISBN 1594960267.
19. Kotler, P., Keller K.L., *Marketing Management*, **2012**, 14th ed. Pearson Prentice Hall. Upper Saddle River, NJ.
20. Lim Juyun., Hedonic scaling: A review of methods and theory. *Food Quality and Preference*, **2011**, 22, 733-747. 10.1016/j.foodqual.2011.05.008).
21. Mălcome, P., *Marketing*, **1993**, Editura Academică Gheorghe Zane Iași.
22. Necula Valentin, Babii Mihaela., *Analiza senzorială a alimentelor și produselor alimentare*, **2012**, Ed. Univ. "Transilvania" Brașov ISBN:978-606-19-0077-0
23. O'Sullivan M.G., *A handbook for Sensory and Consumer-Driven New Product Development*. Elsevier, Cambridge, **2017**, Innovative technologies for the food and beverage industry.
24. Rabin, M., Psychology and Economics. *Journal of Economic Literature*, **1998**, 36(1) 11-46
25. Ramasamy, A., Kalaiivanan, G., Sukumar, S.P., Consumer Behaviour towards Instant Food Products. *Indian Journal of Marketing*, **2005**, 35.
26. Ryan, M.J., Bonfield, E.H., The Fishbein Extended Model and Consumer Behavior. *Journal of Consumer Research*, **1975**, 2(2), 118-136.
27. Ryckman R., *Theories of personality*, **2004**, Thomson/Wadsworth, Belmont, CA
28. Schiffman Leon G., Kanuk Leslie Lazar., *Consumer behavior*, **2008**, Ninth edition, Prentice Hall of India private limited, New Delhi
29. Shuiping Ding., Jie Lin, Zhenyu Zhang, Influences of Reference Group on Users' Purchase Intentions in Network Communities: From the Perspective of Trial Purchase and Upgrade Purchase, *Sustainability*, **2020**, 12, 10619;
30. Świąder K., Florowska A., Konisiewicz Z., Chen Y.P., Functional Tea-Infused Set Yoghurt Development by Evaluation of Sensory Quality and Textural Properties. *Foods*, **2020**, 9,1848.
31. Świąder, K., Marczevska, M., Trends of Using Sensory Evaluation in New Product Development in the Food Industry in Countries That Belong to the EIT Regional Innovation Scheme. *Foods*, **2021**, 10(2), 446.
32. Țimiraș Laura, *Cercetări de marketing - curs universitar*, **2012**, Alma Mater, ISBN 978-606-527-222-4.
33. Verdurme Annelies, Viaene Jacques., Exploring and modelling consumer attitudes towards genetically modified food, *Qualitative Market Research: An International Journal*, **2003**, 6, 95-110.
34. Yahaya Azizi Hj., Abraham Maslow: The Needs Hierachy, Faculty Of Education Universiti Teknologi Malaysia, [http://eprints.utm.my/6091/1/aziziyahbrahamMaslow .pdf](http://eprints.utm.my/6091/1/aziziyahbrahamMaslow.pdf), 11.11.2021.
35. Yeung, R.M., Morris, J., Consumer perception of food risk in chicken meat, *Nutrition & Food Science*, **2001**, 31, 270-279.
36. Cardello Armand V., Schutz Howard G., A Labeled Affective Magnitude (Lam) Scale for Assessing Food Liking/Disliking, *Journal of Sensory Studies*, **2001**, 16(1), 117-159
37. Cardello Armand V., Schutz Howard G., Research note numerical scale-point locations for constructing the lam (labeled affective magnitude) scale, *Journal of Sensory Studies*, **2004**, 19(4), 341-346