Food Consumption Patterns, in a Values-based Approach, for Generation Z

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Abstract: The main objective of this research is to validate the value-based consumer behavior models of food consumption, for a specific generation. The theoretical basis of this topic is provided by two pillars: value-based consumer behavior theories and generational marketing, in which the focus is on the main characteristics of Generation Z. A common feature of the consumer behavior theories based on the value system proposed in the literature review is that they assume there is a relationship between the consumer's motivation for selecting products and services and the value system. This basic concept inspired the present primary research, to analyze the relationship between the value system and consumer behavior in a generation-specific way by examining the food consumption habits of Generation Z, including their attitudes towards healthy eating. As part of the primary research, quantitative data collection took place in the form of a snowball sampling procedure among Generation Z. As part of the quantitative research, a pre-tested, standardized, online survey was conducted that analyzed over 500 evaluable questionnaires. The main hypothesis of this study is the primary analysis, namely, to prove that the basic structure of consumer behavior theories based on values, is applicable, to the food consumption habits of Generation Z. The results help identify the values of future generations, their focus on health and what they do to protect their health. In addition, the results of the survey will also help identify relevant food consumption behavior patterns among Generation Z participants. This helps define a target group for healthy eating and health education campaigns, that target Generation Z.

Keywords: values; Generation Z; segmentation

1 Introduction

Consumer behavior is part of human behavior. The factors that determine our human behavior and choices, also affect our purchasing decisions. Finding the ultimate drivers of our consumer choices is at the heart of marketing. Because if we know and understand the customer's main motivations, we can offer them targeted marketing activities. In this paper, I focus on food consumption within consumer behavior, and its value systems approach, with the aim of identifying the ultimate drivers of consumer decisions.

Among the determinants of consumer behavior, I emphasize value systems as a fundamental determinant of the internal context of consumer behavior. In examining consumer behavior, the effects of changes in lifestyle and values cannot be ignored. The literature review of this study presents different approaches to values and their impact on consumer behavior.

Value measurement methods play an important role in extending the marketing research toolbox to provide a sound analysis of the individual characteristics that explain consumer preference and how consumer decision-making is influenced. These models, based on the measurement of values, have already sought to explain the motives behind product and service choice and thus form the theoretical model for the research described in this paper.

2 Theoretical Background

2.1 The Role of Values in Food related Consumer Behavior

One pillar of the theoretical background of the research is the value-based theories of consumer and food consumption behavior. The common rationale for these theories is to interpret the purchasing and consumption decisions as an external aspect of the value system. Therefore, among the factors that determine consumer behavior, the value system has been prioritized as the basic determinant of the internal context of consumer behavior.

As a part of human behavior, consumer behavior is a complex and complicated process. It is not by accident that its research has been the main focus of marketing for decades. Understanding consumer behavior and purchasing decision-making processes is essential for developing competitive marketing concepts and product and service portfolios that meet current expectations [1]. In order to create attractive offers that attract customers, it is important to understand how decision is made and the process and mechanism behind the decisions [2-4] According to the interdisciplinary approach to consumer behavior, consumer behavior is such a complex form of behavior that includes individual needs, the determinants of one's environment, as well as the buyer's information supply, the ability to evaluate alternatives and the decision-making mechanism that subsequently satisfies or dissatisfies the buyer. According to the schematic model of consumer decision-making, in addition to the influence of familiar (endogenous) factors that are related to consumers and affect consumer decision-making, the influencing power and effects of the wider environment (exogenous

dimension) are also considered [5]. In this research, the analysis of endogenous factors, namely the value system is in the limelight.

The interdisciplinary approach to consumer behavior shows that values are related to the two environmental factors of culture and society. Each society develops a set of values and regulations in its own cultural framework, which determines the behavior of its members within certain limits. Social factors can be linked to values through dimensions such as lifestyle, way of life and status.

However, sociological views and sociological approaches to consumption differ in their emphasis on the cultural, social, or individual determinants of value.

According to Hofmeister-Tóth [6], a value is a persistent concept or belief about a desired form of behavior or way of life, ranked by relative importance in different situations.

The cultural determinacy of value is emphasized by Andorka, Giddens, Hawkins-Best-Coney, [7-9] who consider value as a cultural principle, an idea. In contrast, there are authors who emphasize the individual determination of value. For example, the subjectivist approach characterizes Peter-Olson's [10] definition of value as a cognitive representation of the consumer's basic needs and objectives.

Other authors, on the other hand, emphasize the social determinacy of value, as opposed to individual determination. Gauthier [11] stresses the normative force of value when he names value as the norm of choice. Similarly, Hartmann [12] theorizes that value is the source of our norms.

In our opinion, on the basis of the theories, it can be concluded that values are produced by the culture of a given group, but that group values are influenced by the conditions and circumstances that determine everyday life.

Among the value measurement methods used in psychology, the most well-known in marketing science are the Rokeach value system [13] and Mitchell's "Values and Value Styles" [13] The Kahle's list of values [14] already adapted to the specificities of marketing research, is a method well suited for consumer behavior research [15].

Value measurement techniques play an important role in expanding the market research toolbox to provide reliable analysis of individual characteristics that explain consumer preferences and how they influence decision making. Value models of consumer behavior based on the measurement of value made possible by the aforementioned methods have been developed by further thinking the methods of measuring value. These value-based models have now attempted to explain the motives for selecting products and services [15].

The links between values and consumer behavior also apply to the analysis of food consumption and eating habits. This is evidenced by models that attribute dietary choices and food choice to values and lifestyle. A common feature of these models is that they start from abstract value systems of products or services and arrive at the specific attributes of a particular product, food or service in relation to these. Such is the case of Gutman's Means-End Chain Model theory [16], which, as a hierarchical model, highlights the interrelationship between values, consumption and specific product attributes.

Taking this a bit further, Grunert (1996) [17] created a model of food-oriented lifestyles, which also explains the specific situational components of food consumption on the basis of values, such as the way of shopping, aspects of product quality, methods of food preparation, consumer situations and consumer motivations.

According to the theory of food consumption behavior based on values, the influence of values on food consumption preferences is reflected at three levels. The first level is for the general core values of consumers, such as peace, safety and time. The second level is occupied by the values that determine consumer behavior, such as quality awareness, hedonism, and time consciousness. These reflect the social status, preferences and living conditions of consumers. Finally, at the third level, there are specific product and service value, such as product and service selection motivation. [13]

The basic concepts of these theories inspired the exploration of the relationship between values and consumer behavior. It was completed for the first time within the framework of a study conducted on a domestic sample in 2008. The results of the study showed that the value-based consumer behavior theory is applicable to food consumption and one specific branch of food consumption, the provision of workplace (institutional) catering [18].

As a result, the value-based consumer behavior model of workplace catering was created, and the model was validated in the light of the results of the research.

We were able to confirm the same correlation in a 2016 study, when we showed a correlation between the perception of the value of money and the way money is managed and financial decisions are made. This confirms that the basic framework of value-based theories of consumer behavior also applies to money-related decisions. [19]

Value-based models have been successfully applied in several different areas of marketing to understand the ultimate motivation of consumer decisions. Wiedman et al. [20] were looking for an explanation in consumer value orientation in the segmentation of luxury products.

Aindrila and Mousumi [21] included value orientation in their analysis of attitudes and willingness to buy sustainable, green products, seeking to explain the motivations behind consumers' willingness to pay more for sustainable, green products.

Kennedy and colleagues [22] have successfully applied value-based segmentation to the targeting of advertising messages in their empirical study.

Ramasamy et al. [23] relied on Schwartz's Human Values Theory to investigate CSR activities in their study of consumer attitudes.

Fleseriu et al. [24] investigated the motives behind the purchase of Romanian organic products and used the basic concept of value system studies as a starting point.

The above examples also show that value systems are often the most credible explanation of consumer choice, the ultimate indicator of purchase.

All the international examples also show that value system analysis, regardless of which value dimension structure is used, can be used to identify the motives for buying a product/brand. Moreover, it allows the exploration of intrinsic relationships and explains in such depth how the purchase decision is made that it provides a number of relevant hints for the choice of marketing targeting tools.

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2.2 The Characteristics of Generation Z from a Generational Marketing Perspective

Another important theoretical basis for this study is the concept of generational marketing. This section describes the consumer characteristics of Generation Z.

According to the basic concept of generational marketing, each generation can be characterized by its own common and specific values. Values, shared experiences, identities enable generations to be characterized because these are the features that connect people and form a kind of organizational principle between many different individual destinies, stories, and features. The identities found within a generation frame the choices of the people belonging to it and distinguish it from other generations [25].

An important aspect of generational behavior research is the study of value orientation and the identification of differences in it [26]. The concept is that, in addition to the strict demarcation of age, it is also necessary to consider the fact that each generation has different group experiences. The starting point of a marketing approach based on generational theory is that the major and defining events experienced during their socialization, the 'zeitgeist', accompanies people throughout their lives and influences their choices. In this study, the focus is on Generation Z consumers, therefore this generation is briefly described.

Generation Z is the target group of the primary research. In our country, Tari [27] [28] has examined Generation Y and Generation Z in more detail. According to her characterization, Generation Z is also known as the "new-conservatives", the "Facebook generation". But it is also called the digital natives, the "Instant online" generation or the next generation, the iGeneration [29] [30]. Because of the former, they are often referred to as Generation C, which comes from the

English word connection, or D, which refers to the word digital, but also R, which comes from the English word responsibility. This generation is more environmentally aware and sensitive to social issues than any of the previous generations [31].

It is important to emphasize that Generation Z should not be considered as just one of the generations, as it is the world's first global generation to grow up in the same culture and share the same food, fashion and places. Globalism is also a language toolkit. They use words and phrases that other generations do not understand or hardly understand. Generation Z has the same problems as young people of the previous era, looking for identities and tackling the big problems in life, conformity, etc. but technological opportunities give new frameworks to their lives that suddenly makes their behavior even more incomprehensible to their elders. Generation Z's general hedonism is pushing back childbearing and keeping them being a child longer. Often, a focus on the individual, self-interest, brings to the surface narcissistic characteristics that will affect their attitude towards work and even society [30]. A closer look at generations provides an opportunity to define habits more precisely, to understand why, when, and how customers are likely to act.

In line with this, traditional shopping is no longer dominant for young people, the field of shopping has also moved to the online world, shopping, wandering around the shops is not typical for them and it is not an experience factor for them. According to experts, the best way to meet the needs of the new generation is to make the activities in which we want to involve them as community-based as possible, so that it can become community experience and community space for them. Nowadays, creating an experiential environment for shopping has become imperative, and consumers are demanding elements of spectacles and shows, which is especially important for young people according to Törőcsik [33] [34]. The younger generation needs experience: tasting, touching, amazement, surprise, horror, in short, entertainment is the key word for the services and product experiences positioned for them [25] [35].

3 Material and Method

The main research objective of the study is to demonstrate the basic relationship between food consumption and values in a generation-specific perspective.

The research hypotheses were based on the value system models outlined in the secondary research, and a generation-specific validation with an emphasis on food consumption is recommended, they are:

H1 Individuals of this generation may be categorized based on their food consumption preferences, with separate groups depending on the above-mentioned descriptive variable.

H2 Food consumption of Generation Z, the underlying correlation of valuebased consumer behavior theories holds true, i.e., the value orientation of the food consumption preference groups varies considerably.

As part of the quantitative research, a pre-tested standardized online questionnaire survey was performed, which resulted in the analysis of 546 evaluable questionnaires. For the quantitative research, subjects were recruited using a snowball sampling method. The condition for being included in the sample was that the subjects should be from Generation Z in terms of age.

The research instrument contained only closed questions, nominal - single- and multiple-choice selective questions - and four-item rating scales to analyze consumer attitudes and value orientation.

The topics of the research tool were the values of Generation Z, their food consumption behavior, their views on health and healthy eating. A pre-qualitative phase -5 mini-focus groups - helped to compile the themes and specific questions of the questionnaire. Within this framework, subjects were recruited from Generation Z, heterogeneous by gender but age, using a snowball sample. During the qualitative phase, used as a pre-study, a semi-structured interview schedule was used during the guided interviews.

A "forcing scale" from 1 to 4 for the scaling problems was used. One reason for this is Hungarian respondents' individual scale preference: according to the school grading system, our Hungarian respondents are most stable when interpreting a scale of up to five grades rather than scales 1-7, 1-9, or 1-10.

The even scale was selected since the middle value (3) for the odd scale (1-5) provides a sort of escape route for responses. In the examination of attitudes, those who choose the middle value do not tip the scales in either direction, resulting in an excessive number of "indifferent" customers, making their segmentation statistically and professionally difficult. As a result, an even scale was selected, which, by excluding the middle value, leads the respondent to take a more stringent stance, thus contributing more to a successful segmentation [34]. In addition, for the questions analyzed using the odd- even scale, it was not necessary to have a middle, indifferent value either as a "do not know" or "do not recognize" response, as the cognitive level was filtered using separate questions.

Descriptive statistics, bivariate and multivariate analyses were used together with SPSS 22.0 software to analyze the quantitative findings and test the hypotheses. A factor analysis of the preference system was carried out in the first phase of segmenting the food buyer preference, deciding on the final factor structure based on the KMO value, total variance value, and professional explanatory power. A K-means clustering algorithm was employed for segmentation, which is a statistically appropriate method due to the sample size of more than 1,000 sample elements.

In the present study, in addition to the results of factor and cluster analysis, Pearson's Chi-square significance values for the determination of statistical correlations in the characterization of the segments was applied, while the absolute values of the Adjusted Residual (Adj.R) were considered for the determination and analysis of internal correlations [37].

4 **Results and their Evaluation**

To test the first hypothesis (H1), food consumption preferences among the sample members were analyzed.

The results showed that the most important factor in selecting food was its freshness, as shown in Table 1. The second most important aspect to consider was value for money, followed by the good taste and smell of the food.

The fact that the cheapness of food was pushed to the background by its nutritional value (vitamin and mineral content, free of artificial substances) and its external characteristics shows that this generation is less sensitive to prices. Of course, this is not only a function of individual food consumption preferences, but it is also presumably related to the fact that the majority of the respondents do not make their own living, but still live in the same household as their parents.

Aspects of food selection	Average 1 = not at all important and 4 = absolutely important	Deviation
freshness	3.68	0.60
low calorie content	2.33	0.91
organic quality	2.11	0.88
good taste, smell	3.62	0.62
nice, attractive appearance	3.11	0.80
geographical origin, place of origin	2.31	0.96
high nutritional value	2.74	0.88
vitamin, mineral content	2.88	0.90
practical packaging	2.64	0.84
quick to prepare	2.92	0.90
brand name	2.44	0.90
the food must be free from artificial substances	2.78	0.91

Table 1 Food consumer preferences in the sample

long shelf life	2.71	0.86
value for money	3.63	0.65
the right size packaging	3.18	0.77
recyclable, environmentally friendly packaging	2.71	0.93

Resources: owns research, N=546 (average, 1 = not at all important, 4 = absolutely)

In order to confirm that the sample can be divided according to food consumption preferences, a factor analysis was conducted on the factors that play a role in food selection.

The results of the three, four, and five-factor tests were analyzed with the fourfactor solution providing the best explanation.

As a result, the following factors could be defined (Table 2):

- Health and Environmental Awareness: aspects such as recyclability, geographical origin and organic quality are also taken into account, in addition to the nutrients of the food, the high content of vitamins and minerals. These factors constitute a conscious set of factors that take into account health and the environment.
- Time and price, whereby durability and speed of preparation, i.e., time-related and time-saving elements, are added to the price-related factors.
- Sensory elements, which included visual perceptual characteristics such as freshness, taste, and smell
- Design and communication, a group of factors that included practicality, appearance and branding.

Aspects of food selection	Health and Environmental Awareness	Time and price	Sensory elements	Design and communication
vitamin, mineral content	0.78676	0.037005	0.128931	-0.00616
the food must be free from artificial substances	0.76487	0.040316	0.07004	0.150526
organic quality	0.74578	0.071571	-0.1266	0.009187
recyclable, environmentally friendly packaging	0.70652	0.085475	0.136874	0.026998
high nutritional value	0.698	0.061657	0.084324	-0.06675

Table 2 Rotated factor matrix of factors involved in food selection

geographical origin, place of origin	0.60981	-0.25351	0.024441	0.358147
low calorie content	0.39509	0.361324	-0.1959	0.019246
quick to prepare	-0.1071	0.68764	-0.09003	0.216979
long shelf life	0.159716	0.67593	0.027882	0.106936
value for money	0.105523	0.59541	0.485745	-0.00733
cheap	-0.09438	0.53456	0.252734	-0.11076
the right size packaging	0.175099	0.48357	0.267709	0.268561
good taste, smell	-0.02398	0.173588	0.80037	0.145475
freshness	0.163343	0.044012	0.77329	-0.06164
brand name	-0.01639	0.183361	-0.12872	0.80903
nice, attractive appearance	0.022518	0.010986	0.469521	0.63328
practical packaging	0.338598	0.364455	0.086516	0.46666

Source: own research, N=546, factor analyses, sum variance=56.2% KMO=0.697; df=66; sig=0.00

In order to segment the sample according to the food consumption criterion system, a cluster analysis on the complete list of factors was performed using the K-means procedure. As a result, the following segments were distinguished (Table 3):

- Health and environment segment, who rated the considerations of the health and environment factor group above the other segments and the sample.
- Non-price-sensitive consumers who overestimated everything, and who considered all criteria apart from cheapness to be more important than the sample average.
- Those without a preference, for whom no single criterion was more important than the overall sample average. These are consumers who presumably do not have a mature pattern of behavior; their preference system is still immature and can be influenced.
- Time- and price-conscious group, for whom speed, time-related elements and price-related factors played an above-average role in their food choices.

selectionN=120N=56N=150freshness3.813.723.113.673.68lowcalorie2.322.872.042.032.33organic quality2.192.901.791.472.11good taste, smell2.832.701.932.972.75nice, attractive3.663.733.003.713.62geographical origin, place of origin3.053.452.573.123.11high nutritional value2.443.052.041.642.31vitamin, mineral content2.923.552.391.972.74practical packaging3.193.632.292.052.88quick to prepare2.523.451.712.532.64brand name2.783.182.183.192.92the food must be free free from artificial substances2.142.951.932.652.44long shelf life3.003.582.002.092.78value for money2.483.401.752.842.71the right size packaging3.653.852.503.843.63		Food consumer segments				
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	friendly	3 22	3 53	2 18	3 73	3 18

Table 3 Food consumer segments in the sample

source: My research, N=546, K-means clusterization process

In order to test hypothesis H2, according to which there is a correlation between the value orientation of Generation Z and their food consumption behavior patterns, analysis of variance was used to see whether it is statistically proven that the food consumption groups can be differentiated by value orientation (Table 4). According to the results of the analysis of variance (sig=0.000), there are differences between food consumption segments for each value dimension included in the analysis.

The result is that freedom, friendship, a calm and balanced life, health, good relationships, internal harmony, and a peaceful life are important aspects ranked above average for health and environmentally conscious food consumers. In addition to being career-oriented, they are young people and followers of traditional values whose patterns of food-consuming behavior are very closely related to their values and ways of thinking.

Time and price conscious food consumers are a group of people who prioritize freedom, leisure, life enjoyment and material well-being. That is, they follow hedonistic values that are consistent with the attitude of food consumption.

The results also showed that those who overestimated all dimensions of food consumption preferences showed a similar pattern in their values, and this was also true for those for whom nothing was really important. They were characterized by this kind of lack of preference in their food consumption habits as well as in their perception of human values.

Values	Clusters	Ν	Average
Freedom	Health and environment conscious segment	220	3.78
	Non-price-sensitive consumers	120	3.73
	Those without a preference	56	3.35
	Time- and price- conscious group	150	3.78
	Sample	546	3.72
Leisure, life enjoyment	Health and environment conscious segment	220	3.77
	Non-price-sensitive consumers	120	3.78
	Those without a preference	56	3.32
	Time- and price- conscious group	150	3.82
	Sample	546	3.74
Material well-being	Health and environment conscious segment	220	3.52
	Non-price-sensitive consumers	120	3.65

Table 4 Characterization of food consumption behavior patterns by value system

	Those without a		
	preference	56	3.21
	Time- and price-		
	conscious group	150	3.8
	Sample	546	3.59
	Health and environment		
Friendship	conscious segment	220	3.83
	Non-price-sensitive		
	consumers	120	3.76
	Those without a		2.42
	preference	56	3.42
	Time- and price-	150	2.00
	conscious group	150	3.88
	Sample	546	3.79
	Health and environment	220	2.02
Calm and balanced life	conscious segment	220	3.83
	Non-price-sensitive	120	3.86
	consumers	120	3.00
	Those without a preference	56	3.3214286
	Time- and price-	50	5.5214200
	conscious group	150	3.76
	Sample	546	3.76
	Health and environment	540	5.70
Health	conscious segment	220	3.89
	Non-price-sensitive	220	0.05
	consumers	120	3.86
	Those without a		
	preference	56	3.25
	Time- and price-		
	conscious group	150	3.78
	Sample	546	3.79
	Health and environment		
Good relationships	conscious segment	220	3.79
	Non-price-sensitive		
	consumers	120	3.8
	Those without a		
	preference	56	3.25
	Time- and price-		
	conscious group	150	3.68
	Sample	546	3.70
	Health and environment		a :=
Freetime	conscious segment	220	3.45
	Non-price-sensitive	100	2.50
	consumers	120	3.50

	Those without a preference	56	3.10
	Time- and price- conscious group	150	3.49
	Sample	546	3.43
Allow myself something good	Health and environment conscious segment	220	3.51
	Non-price-sensitive consumers	120	3.63
	Those without a preference	56	3.142
	Time- and price- conscious group	150	3.69
	Sample	546	3.55
Economy	Health and environment conscious segment	220	3.31
	Non-price-sensitive consumers	120	3.51
	Those without a preference	56	2.89
	Time- and price- conscious group	150	3.12
	Sample	546	3.26
Gaining pleasure for others	Health and environment conscious segment	220	3.50
	Non-price-sensitive consumers	120	3.66
	Those without a preference	56	3.21
	Time- and price- conscious group	150	3.48
	Sample	546	3.50

Source, My results, N=546, analysis of variance (sig=0.000)

Conclusions and Summary

First, the food consumption habits of Generation Z were studied and distinct consumer groups were characterized, based on food consumption preferences. This confirms the first hypothesis (H1), according to which members of this generation are well distinguishable on the basis of food consumption preference. As a result of the clustering procedure, four consumer segments were differentiated: the "health and environment cluster", whose members overestimated the aspects belonging to the health and environment factor group. The "all-above-average, non- and price-sensitive consumers", who rated all aspects except for the criterion of cheapness as more important than the sample average. The "no preference" group, for whom no single aspect was really

important; and the "time and price sensitive" group, for whom speed, time-related elements and price-related factors played an above average role in the selection of a food.

To test the second hypothesis (H2), these segments were also characterized in terms of values. According to the results of the analysis of variance (sig=0.000), there was a significant difference between the food consumer segments on each of the value dimensions included in the analysis. This confirms the second hypothesis, i.e., that the value orientation of the groups according to food consumption preference differs significantly.

In summary, the main objective of the research is to examine the values, food consumption behavior and perceptions of health and healthy eating of Generation Z based on secondary and primary research findings. The aim was to demonstrate that the basic concept of value-based consumer behavior models is valid for the members of Generation Z being studied.

The theoretical basis for the topic under review was provided by theories of valuebased consumer behavior and generational marketing. According to the basic concept of value-based food consumer behavior theories, there is a correlation between consumers' motives for selecting products and services and their perception of human values: i.e., food selection is attributed to consumer values.

Following this basic concept, the relationship between values and food consumption behavior was analyzed in a generation-specific way in the primary study.

Overall, consistency was found between the groups in terms of food consumption choices and perceptions of basic human values.

The results give us a clear picture of the food consumption habits of the members of Generation Z, as well as, their values, which serve as an important point of reference in the choice of marketing activities for this generation. The characterization of each segment can provide a basis for a differentiated marketing strategy, which can definitely be a useful source of information for food distributors and producers.

Based on food consumer preference, four target groups were defined as a result of the primary research. The characterization of these segments and the description of their specificities in terms of values can help to define the scope of the targeted marketing activities.

A limitation of the research herein, is that the results are only valid for the given sample, a limitation that can be overcome, by conducting a nationally representative sample in the future. As a further step in the research, a qualitative phase is planned, to achieve deeper and more nuanced results, analyze the segments identified in the quantitative analysis in a more sophisticated way and possibly, identify further segmentation possibilities and consumer niches.

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