IDENTIFYING FACTORS THAT AFFECT CHEESE CONSUMPTION AS ESSENTIAL ELEMENTS FOR ADEQUATE PLACEMENT ON THE REGIONAL MARKET

Bojana Kalenjuk Pivarski[1], Velibor Ivanović[2], Anita Mitrović Milić[3], Danica Radević [4], Dragana Novaković [5], Bojan Đerčan [6], Dragan Tešanović [7], Zlatibor Milić [8]

**Corresponding author E-mail: bojana.kalenjuk@dgt.uns.ac.rs*

1 Bojana Kalenjuk Pivarski, Full professor, Department of Geography, Tourism and Hotel Management, Faculty of Sciences, University of Novi Sad, 21000 Novi Sad, Serbia and Faculty of Economics, University of East Sarajevo, 71420 Pale, Bosnia and Herzegovina, Phone: 00381 64 199 0235 , E-mail: bojana.kalenjuk@dgt.uns.ac.rs, ORCID ID (https://orcid.org/0000-0003-0661-5359)

2 Velibor Ivanović, Junior Researcher, Department of Geography, Tourism and Hotel Management, Faculty of Sciences, University of Novi Sad, 21000 Novi Sad, Serbia, Phone: 00381 64 4791 538, E-mail: velibor.ivanovic@dgt.uns.ac.rs, ORCID ID (https://orcid.org/0009-0008-4465-7879)

3 Anita Mitrović Milić, Assistant Professor, Faculty of International Management in Tourism and Hospitality, 85315 Miločer, Montenegro, Phone: 0038269039369, E-mail: fakultet@hecmontenegro.com, ORCID ID (https://orcid.org/0009-0008-0586-6686)

4 Danica Radević, Teacher, Faculty of International Management in Tourism and Hospitality, 85315 Miločer, Montenegro, Phone:00382 67 241 665, E-mail: danicaradevic@gmail.com, ORCID ID (https://orcid.org/0009-0006-2168-3690)

5 Dragana Novaković, Assistant Professor, Department of Agricultural Economics and Rural Sociology, Faculty of Agriculture, University of Novi Sad, 21000 Novi Sad, Serbia, Phone: 00381 69 1994316, E-mail: dragana.tekic@polj.uns.ac.rs, ORCID ID (https://orcid.org/0000-0002-1924-6196)

6 Bojan Đerčan, Associate Professor, Department of Geography, Tourism and Hotel Management, Faculty of Sciences, University of Novi Sad, 21000 Novi Sad, Serbia, Phone: 00381 64 2974 020, E-mail: bojan.djercan@dgt.uns.ac.rs, ORCID ID (https://orcid.org/0000-0003-3553-4099)

7 Dragan Tešanović, Full Professor, Department of Geography, Tourism and Hotel Management, Faculty of Sciences, University of Novi Sad, 21000 Novi Sad, Serbia, Phone: 00381 63 541 436, E-mail: dragan.tesanovic@dgt.uns.ac.rs, ORCID ID (https://orcid.org/0000-0003-1675-5654)

8 Zlatibor Milić, Assistant Professor, Faculty of International Management in Tourism and Hospitality, 85315 Miločer, Montenegro, Phone: 00382 67 332 696, E-mail: zlatibormilic@gmail.com, ORCID ID (https://orcid.org/0009-0004-5289-1682)

ARTICLE INFO

Original Article

Received: *21 January 2024*

Accepted: *20 May 2024*

doi:10.59267/ekoPolj24041105K

UDC 338.439.63:637.3

Keywords:

agri-food; cheese; consumer behaviour; consumption; consummation; factors; Serbia; Montenegro; agri-food market

JEL*: L66, P36, P46*

ABSTRACT

Cheese is a significant agri-food product for many people and the economy. Its manufacture has a long tradition, and its consumption varies according to the specifics of the cultures. Knowing consumers' needs, attitudes, and approaches to consumption is essential in any industry, including the agri-food industry. That is why the subject of this paper is consumer behavior (CB), defining the factors that influence attitudes and intentions in cheese consumption observed at the level of two regions from Southeast Europe: the Republic of Serbia and Montenegro. The CB-Cheese scale was created for research purposes, which proved appropriate for this agri-food product research. The research showed significant differences in the behavior of the consumers of these two markets and that the consumption of cheese increases with the level of income. Special attention is paid to the quality of the product and its compatibility with the price. The obtained data provide clear guidelines for adequate placement in the regional market.

Introduction

Commencing with its definition is crucial when debating cheese as a well-known and significant category of agri-food products in the human diet (Tendero, Bernabeu, 2005; Fox et al., 2015; Guine, Florenca, 2019; Ferreo, Guine, 2019; Šmugović et al., 2021; Ivanović et al., 2022). Cheese is a dairy product that is obtained through the process of coagulation and fermentation. The diversity in production technology is enormous, varying in the types of milk used, production operations and technologies, milk cultures, ripening time, as well as conditions, giving the final products a wide range of characteristics such as taste, texture, color, shape, and size (Fox et al., 2015; Guine, Florenca, 2019; Ferreo, Guine, 2019; Ivanović et al., 2022; Zheng et al., 2021; Najera et al., 2021; Skalkos et al., 2023; Stošić et al., 2023). The primary goal of cheese production is to preserve the main nutritional ingredients from milk while establishing certain sensory characteristics. Thanks to the progress of the food industry, cheese has managed to evolve, so that it has become a food of haute gastronomy, with an association with products of superior quality (Fox et al., 2015; Guine, Florenca, 2019; Ferreo, Guine, 2019). According to its characteristics, cheese belongs to a neutral group of foods that fully corresponds to the principles of proper nutrition (Dekker et al., 2019), and its properties make it almost indispensable to the human diet. In addition to belonging to the group of highly valuable foods that have an exceptional nutritional value, this group of agri-food products has exceptional economic importance for world trade (Guine, Florenca, 2019; Ferreo, Guine, 2019; Pantić et al., 2021).

Observing consumption in the context of consumer behavior (further BC) when it comes to this group of agri-food products, it is essential to emphasize that they are in households consumed by a large percentage of the population, with the fact that its consumption is frequent, but in small quantities, which results in low consumption per capita. The research showed that socio-economic and demographic factors greatly influence consumers' consumption of dairy products because the higher social classes in European countries consume more cheese than the lower classes (Prättälä et al., 2003). Given that recent research on this topic has not been done, the need for this research arises.

This paper explores the factors that have an impact on BC and consumer preferences, that is, intentions to consume cheese as an important agri-food product in the diet of the population and the dairy industry. The study was carried out in two Southeast European regions: the Republic of Serbia and Montenegro. The information gathered will help clarify cheese consumption and offer recommendations for how it should be offered in the local agri-food market in the researched regions.

The research task is to examine BC and the factors that influence their choice, with the aim of achieving successful placement within the selected localities.

Q_1: What is the agri-food market's profile of cheese consumption in both regions?

Q_2: Are there any differences in BC?

Q_3: Which factors influence BC, i.e., cheese procurement in both afri-food markets, and are there any differences?

Cheese consumption

A large amount of research on BC and cheese as an agri-food products consumption has not been done recently, except for some whose concepts and results are mentioned in the rest of this paper (Schmitt et al., 2016; Scozzafava et al., 2020; Maceín et al., 2019; Petković, Užar, 2020; Echeverría et al., 2021). What was a particular challenge was to research data on BC in terms of cheese consumption in the territory covered by this research (R. Serbia and Montenegro) because such data are very scarce (Paskaš et al., 2020), regardless that cheese belongs to agri-food products consumed by a large part of the population in their households (Tendero, Bernabeu, 2005). In addition to the large and economically significant production of industrial cheeses, the traditional production of cheeses, which makes them unique, carries with it a certain social significance, making them an important part of cultural heritage (Zheng et al., 2021; Najera et al., 2021; Šmugović et al., 2021; Ivanović et al., 2022; Skalkos et al., 2023).

The research conducted by Miloradovic et al. (2022) showed that consumers from different countries have different preferences for cheese depending on the type and different ways of consuming it. The highest consumption of cheese per capita is achieved in Europe. In 2022 alone, cheese consumption in European Union countries reached 20.96 kg per capita, which brought the USA and Canada to second and third place with

a consumption of about 17.8 and 14.85 kg. During 2022., about 9.4 million metric tons of cheese were consumed in the European Union, which far exceeded the consumption in other parts of the world, among which we should mention China, which has three times the number of inhabitants and whose consumption of cheese amounted to about 409 thousand metric tons (https://www.statista.com/statistics/527195/consumption-of-cheese-per-capita-worldwide-country/).

Profile of cheese consumer behavior and cheese consumption

The industries that produce cheese are trying to meet the consumer's needs and increase consumption, which is why frequent research is conducted to obtain highly valuable information to meet their demands (Tendero, Bernabeu, 2005). Investigating the profile of cheese consumers, it was found that among the dominant buyers of this group of dairy products are women (Perez et al., 2014), and these are women who manage larger households, who are university-educated, and are 40 years old and older (Davis et al., 2011; Sánchez-Villegas et al., 2003). The same profile of respondents is also related to the willingness to pay for different types of cheese (Scozzafava et al., 2020).

Research conducted by Pérez et al. (2014) showed that 35% of respondents consume cheese three times a week and that cheese consumption is related to the consumption of sandwiches. Statistics have shown that American consumers mostly use cheese (in grated form) in recipes such as pizza, quesadillas, and the well-known macaroni and cheese (https://www.statista.com/statistics/527195/).

Its acquisition or purchase is most often realized in supermarkets and hypermarkets (Tendero, Bernabeu, 2005**)**, even though a large number of specialized stores appear on the market that sell premium products (Calvo-Porral et al., 2017). The research has shown that the suggestion to serve cheese influences the purchase because there is a significant relationship between the decision to purchase and proper nutrition (Rebolla et al., 2016). Semi-hard and hard cheeses should be singled out here because they belong to the group consumed daily worldwide (Guine, Florenca, 2019; Ferreo, Guine, 2019).

In the territory of the Republic of Serbia, the focus was on the consumption of goat's milk cheese, where it was noted that the acceptability of dairy products was significantly lower compared to others, regardless of the fact that this type of cheese is seen as a product with unique health benefits (Paskaš et al., 2020). More detailed research was not done in the Republic of Serbia and Montenegro.

Consumer behaviour

Studies have shown that the main aspects consumers consider before purchasing are the brand (Calvo Porral et al., 2016) and the origin and price of cheese (Pérez et al., 2014). Moreover, Maceín et al. (2019) identified price as the most important criterion when buying cheese. However, the consumer's willingness to pay for cheese depends on factors such as income and prior knowledge of social sustainability, as stated by Echeverría et al. (Echeverría et al., 2021). This is where the protection of cheese labels comes into play because most consumers identify certified cheese with labels of origin and production

as better due to guaranteed stricter quality control (Tendero, Bernabeu, 2005). And consumers are willing to pay more for such cheese (Scozzafava et al., 2020). In the research conducted in Italy and France, in regions famous for producing and consuming cheese, the price is the most important factor that influences consumers' choices. Apart from price, combined quality labels influence consumers' choices, such as origin labels, organic labels, and mountain products (Menozzi et al., 2022). Tendero and Bernabeu (2005) point out that in the choice of cheese among regular consumers, the type of cheese is the most important factor, followed by the price, and finally, the certification, however, among consumers whose frequency of consumption is more sporadic, the guarantee of quality is more important than the price, as in regular consumers.

Protected labels of origin influence consumer purchasing decisions, even though they are premium-priced products (Braghieri et al., 2014). The research showed that consumers value the origin of the product more than the certified protected labels of origin, which is conditioned by the distance between the region of origin of the product and the residence of the consumer, which shows that the importance of certification for consumers increases with the increase of the distance from the region of origin of the cheese (Marcoz et al., 2016).

The place of origin can positively influence cheese selection (Braghieri et al., 2014). The research conducted by Miloradovic et al. (2022) confirmed that consumers appreciate homemade, artisan cheeses from industrial ones more because they deem them healthier and of higher quality. Consumers' willingness to buy traditional cheese is driven by price, suitability, and method of milk processing (pasteurized milk/unpasteurized milk), emphasizing the product's traditional and authentic character (Almli et al., 2011). In contrast, Schmitt et al. (2016) compared local and global cheese supply chains in Switzerland and Great Britain and found that although local cheese was better at creating added value, animal welfare, and biodiversity, global chains were more accessible to consumers and more efficient and had a better performance in environmental indicators (Schmitt et al., 2016), despite the fact that due to the specificity of agricultural production and its products, these products require complex transportation and storage as well as a greater number of intermediaries in their transportation from producer to consumer (Petković, Užar, 2020). Cheese consumers do not have exact opinions and trust in the health safety of cheese that is made by artisan manufacturers (Miloradović et al., 2022). Health awareness about cheeses is another major factor in selection and purchase (Bahety et al., 2022).

The design of cheese packaging is also an essential element, which, as with other products, contributes to improving the perception of the taste of cheese (Veflen et al., 2023). Miloradovic et al. (2022) believe that significant work should be done on improving the proper packaging, labeling, and branding of cheeses, as well as expanding the assortment and greater availability of this group of food products.

Materials and methods

Creation of a questionnaire survey

A questionnaire survey was created based on similar research worldwide (Tendero, Bernabeu, 2005; Mesías et al., 2003) with certain modifications adapted to the market. The questionnaire was structured into four distinct parts. The results of three parts were processed and displayed in this paper:

- The initial section of the survey gathered information on the respondents' age, gender, amount of education attained, and monthly income.
- The second section of the survey collected data on cheese consumption, such as frequency of consumption, quantities, type of consumption, and place of purchase.
- The third section of the survey had to collect data on consumer preferences, i.e., factors driving consumer decisions regarding cheese purchases. For the purposes of this part of the research, a dedicated CB-Cheese scale was created, which consisted of 10 factors whose influence was marked on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). These variables included product quality, product origin (imported or domestic), attractive packaging, clearly indicated expiration date, favorable price, purchase by recommendation, familiarity with the manufacturer, advertising of the product, appearance, and the best price-quality ratio.

Research and survey site

The research included two countries in Southeastern Europe (whose positions are shown in Figure 1), namely:

- the Republic of Serbia (Northern region of Vojvodina - South Bački Administrative District with 607.178 inhabitants) (https://popis2022.stat.gov.rs/) and
- Montenegro (Coastal region with 370.243 inhabitants) (https://www.monstat.org/).

The research was conducted from January 15th to April 15th, 2023. The survey was administered via email after obtaining respondents' consent, ensuring full respect for ethical standards. For research purposes, a survey was sent to 500 (300 in Serbia and 200 in Montenegro) email addresses. 411 were received, of which 370 were processed (226 from the Republic of Serbia and 144 from Montenegro). This number of respondents was considered adequate because it is proportional to the number of inhabitants of the investigated localities.

Statistical data processing

Data collected through questionnaires were organized and analyzed using statistical software R version 4.1.2. Descriptive statistical analysis and the Chi-square test of

independence were applied to the first and second parts of the questionnaire, which addressed the respondents' sociodemographic characteristics and cheese consumption patterns. To identify the factors influencing the decision to buy cheese, explanatory factor analysis (EFA) was performed, followed by confirmatory factor analysis (CFA) to validate the results obtained through EFA. A key assumption for conducting EFA is the presence of correlations between variables, with correlation coefficients above 0.3, which were assessed using the Kaiser-Meier-Olkin (KMO) measure and Bartlett's test of sphericity. Factorial rotation was applied using

Figure 1. Location of researched regions

Author: Đercan, 2023

Varimax rotation with Keiser normalization. The reliability of the study was evaluated using Cronbach's alpha, where a minimum value of 0.6 indicates that the data is suitable for analysis (Hair et al., 2006).

Subsequently, the average variance extracted (AVE) and the composite reliability coefficient (CR) were calculated. These metrics assess the quality of measurement, with AVE representing the proportion of variance explained by a construct in relation to measurement error (Fornell and Larcker, 1981). AVE specifically evaluates convergent validity, which measures the level of agreement between multiple indicators of the same construct. To establish convergent validity, item factor loadings, composite reliability, and AVE values were computed (Hair et al., 2014). Both AVE and CR values range from 0 to 1, with higher values indicating stronger confidence. Convergent validity is confirmed when AVE is greater than or equal to 0.5.

CFA was employed to test and evaluate multiple models of the underlying constructs represented by the questionnaire items, enabling the selection of the most appropriate measurement model (Bryant et al., 1999). Specifically, CFA assessed how well each observed variable aligns with the expected latent constructs. The evaluation also included assessing measurement reliability and validity by considering correlations and variances among the variables. To assess the overall fit of the model, the chi-square statistic (χ^2) was calculated. A significant chi-square value, relative to the degrees of freedom, indicates differences between the observed and expected matrices. To address chi-square sensitivity, the normalized chi-square (χ^2/df) was used, which highlights discrepancies between observed and estimated matrices. A χ^2/df ratio of 5.0 or lower is considered acceptable (Tabachnick et al., 2013).

The Comparative Fit Index (CFI) is a statistical metric used to evaluate the fit of an estimated model by comparing it to a null or independent model. Its values range from 0 to 1.0, where higher values indicate a better fit. CFI is particularly effective for model development methodologies involving small sample sizes (Leesatapornwongsa et al., 2023).

The model's fit is further assessed using the Root Mean Square Error of Approximation (RMSEA). A range of 0.05 to 0.08 is considered indicative of a close fit, while values below 0.05 suggest a strong alignment between the model and the degrees of freedom (Schumacker and Lomax, 2004).

After conducting the factor analysis, the method of multiple linear regression was applied to determine whether the identified factors have a statistically significant impact on GDP growth. Multiple linear regression involves examining the impact of one or more independent variables on a dependent variable. This statistical technique allows researchers to understand the relationship between the dependent variable and several independent variables simultaneously. By including multiple predictors in the model, it is possible to assess the relative contribution of each factor while controlling for the influence of other variables. This method provides a comprehensive analysis of how various factors collectively influence the dependent variable, in this case, GDP growth.

Results

Analysis of sociodemographic characteristics of respondents

The descriptive statistics (*Table 1*) show that 226 respondents from the Republic of Serbia participated in this questionnaire; 109 respondents were male, and 117 were female. The survey in Montenegro included 144 respondents, of which 64 were male, and 80 were female respondents. According to the age structure, the respondents were divided into five age groups where in the Republic of Serbia: the group from 21 to 30 years of age has the highest participation (23.5%), and the group under 20 years of age has the lowest participation (16.8%). Montenegro also had the highest participation of respondents aged 21 to 30 (48.6%) and the lowest participation over 51 years of age (4.9%).

Table 1. Sociodemographic characteristics of the respondents

			Serbia	Montenegro	
Variables	**Categories**	**n**	**Percentage**	**n**	**Percentage**
Sex	Male	109	48.2	64	44.4
	Female	117	51.8	80	55.6
Age	Up to 20 years old	38	16.8	11	7.6
	21-30	53	23.5	70	48.6
	31-40	45	19.9	42	29.2
	41-50	48	21.2	14	9.7
	51 and higher	42	18.6	7	4.9
Level of education	Elementary	9	4.0	1	0.7
	Secondary	77	34.1	50	34.7
	High/university	90	39.8	58	40.3
	Md/PhD	50	22.1	35	24.3
Monthly income	Up to 450 EUR	63	27.9	41	28.5
	451-750 EUR	98	43.4	70	48.6
	751-950 EUR	38	16.8	20	13.9
	More than 950 EUR	27	11.9	13	9.0

Source: Author's interpretation

According to the level of education, in both observed countries, the highest participation of respondents with completed higher school or university (39.8%; 40.3%), while the lowest participation is only 4.0%, i.e., 0.7% of those with completed elementary school. Slightly less than half of the respondents from the Republic of Serbia (43.4%) indicated that they had a monthly income of 451 to 750 euros, while only 11.9% of the respondents indicated that they had a monthly income of more than 950 euros. In Montenegro, the situation is similar as regards the monthly income of respondents: the highest participation (48.6%) of those who have a monthly income of 451 to 750 euros, and the smallest participation (9%) of respondents who have a monthly income above 950 euros.

Analysis of Cheese Consumption

The following examined the consumer characteristics of both regions (*Table 2*). In the Republic of Serbia, slightly more than half of respondents (51.8%) stated that they use cheese once a week, and only 10.2% of respondents stated that they use cheese less than 2-3 times a month. As for the consumption of cheese, the situation is somewhat different in Montenegro, i.e., the largest percentage of respondents (38.2%) declared that they use cheese every day, and the smallest percentage (14.6%) said that they use cheese two to three times a month.

Table 2. Cheese consumption

		Serbia		Montenegro	
Variables	**Categories**	**n**	**Percentage**	**n**	**Percentage**
Cheese Consumption	Every day	46	20.4	55	38.2
	Once a week	117	51.8	46	31.9
	2-3 times a month	40	17.7	21	14.6
	Less often	23	10.2	22	15.3
According to your estimate, how much cheese do you eat on a monthly basis	Up to 100g	19	8.4	12	8.3
	101-300g	50	22.1	26	18.1
	301-600g	76	33.6	33	22.9
	601-1000g	49	21.7	28	19.4
	More than 1001g	32	14.2	45	31.3
How do you eat cheese	As breakfast as a side dish	95	42.0	31	21.5
	As a part of savory dishes	84	37.2	85	59.0
	As a part of desserts	13	5.8	2	1.4
	On its own	18	8.0	24	16.7
	Other	16	7.1	2	1.4
Where do you mostly buy cheese	In supermarkets and shops	156	69.0	93	64.6
	In creameries	28	12.4	10	6.9
	On the market	33	14.6	41	28.5
	Other	9	4.0	0	0.0

Source: Author's interpretation

Regarding the consumption of cheese on a monthly level, respondents from Montenegro are ahead of respondents from the Republic of Serbia, i.e., the highest percentage of respondents from Montenegro (31.3%) stated that they consume more than a kilogram of cheese per month. In the Republic of Serbia, the largest percentage of respondents (42%) declared that they most often consume cheese as breakfast as a side dish. In contrast, in Montenegro, the largest percentage of respondents (59%) declared that they most often consume cheese as an integral part of savory dishes. When asked where they most often buy cheese, more than half of respondents from both countries (69%; 64.6%) stated that they most often buy cheese in supermarkets or stores.

Analysis of statistically significant differences

In the following, the Chi-square test was applied to analyze whether there are statistically significant differences regarding the age category of the respondents, the level of education of the respondents, and their monthly income regarding their monthly consumption of cheese, the way they consume cheese and the type of facility where they most often buy cheese (*Table 3*).

Table 3. The results of the Chi-Square test

	Serbia			Montenegro		
	Age	**Level of education**	**Monthly income**	**Age**	**Level of education**	**Monthly income**
Monthly consumption of cheese	22.224 (p=0.136)	18.178 (p=0.110)	26.726 (p=0.008)	19.418 (p=0.248)	13.906 (p=0.307)	28.204 (p=0.005)
Mode of cheese consumption	37.044 (p=0.002)	11.733 (p=0.467)	14.071 (p=0.296)	17.205 (p=0.372)	18.698 (p=0.096)	23.958 (p=0.021)
Type of facility where the cheese is purchased	6.870 (p=0.866)	13.700 (p=0.133)	7.518 (p=0.583)	12.376 (p=0.135)	9.894 (p=0.129)	6.051 (p=0.418)

Source: Author's interpretation

The Chi-square test results show a statistically significant difference between age categories and cheese consumption patterns in the Republic of Serbia ($p<0.05$). Specifically, respondents under 20 years of age most frequently consume cheese as a side dish for breakfast, while those aged 21 to 50 most often consume cheese as part of savory dishes. A statistically significant difference ($p<0.05$) among respondents in the Republic of Serbia was also noted in terms of monthly income and their monthly cheese consumption. As expected, respondents with higher incomes have higher monthly cheese consumption. Similarly, in Montenegro, a statistically significant difference ($p<0.05$) was observed in the monthly incomes of respondents and their monthly cheese consumption, i.e., respondents with higher incomes have higher monthly cheese consumption. The results from the previous table indicate a statistically significant difference between respondents' monthly incomes and their cheese consumption habits ($p<0.05$). Respondents with lower monthly incomes predominantly consume cheese as a side dish for breakfast or with savory meals, whereas those with higher monthly incomes are more likely to eat cheese on its own.

Factorial analysis - Serbia

Ten research questions were formulated to identify the key factors influencing cheese purchasing decisions (Table 4). The test results indicate that, upon applying principal component analysis to all variables, the total extracted variance was below 50% (46.071%), suggesting the absence of significant bias effects.

Table 4. Descriptive statistics of variables used in factor analysis (Republic of Serbia)

	Serbia	
Variable	**Mean**	**Standard deviation**
Product Quality	4.51	0.855
Origin of the product (imported or domestic)	3.82	1.256
Attractive packaging	3.27	1.249
Clearly stated expiration date	4.09	1.143
Affordable price	3.85	1.090
Recommendation	3.92	1.087
Familiar producer	3.46	1.310
Advertised product	3.21	1.377
Product is appealing	3.95	1.068
The best price and quality ratio	4.36	0.929

Source: Author's interpretation

Observing the variables related to the characteristics of the product on the basis of which respondents make a decision to buy cheese, respondents from the Republic of Serbia mostly agreed that quality is the decisive characteristic they consider when making a decision (Mean=4.513). In addition to quality, respondents expressed the highest degree of agreement with the statement that when making a purchase decision, they consider the best price-quality ratio of the product (Mean=4.367).

Respondents showed the lowest degree of agreement with the statement that when making a decision to buy cheese, they consider attractive packaging (Mean=3.278). and advertised products (Mean=3.217).

Before proceeding with factor analysis, the justification for its application was assessed through the Kaiser-Meyer-Olkin test and Bartlett's test of sphericity (*Table 5*).

Table 5. The Kaiser-Meyer-Olkin (KMO) and Bartlett's test of justification of factor analysis (Republic of Serbia).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.874
Bartlett's Test of Sphericity	Approx. Chi-Square	1157.128
	Df	45
	p-value	0.000

Source: Author's interpretation

The Kaiser-Meyer-Olkin coefficient was calculated at 0.874, significantly surpassing the recommended threshold of 0.6 (Hair et al., 2006), indicating that factor analysis is suitable for this set of variables. This was further validated by Bartlett's test of sphericity ($p<0.05$), confirming a statistically significant correlation among the observed variables.

The principal components method was used to identify the factors found in the correlation matrix. After extracting the factors, Varimax rotation was applied, and the values for the two extracted factors were shown (*Table 6*).

Table 6. Total variance explained (Republic of Serbia)

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	5.128	51.277	51.277	5.128	51.277	51.277	3.337	33.372	33.372
2	1.197	11.969	63.245	1.197	11.969	63.245	2.987	29.837	63.245

Source: Author's interpretation

As shown in the previous table, two factors with eigenvalues greater than one were identified using the principal components method. Together, these factors account for 63.245% of the total variance.These two single factors explain 63.245 % of the total variation. In the continuation of the analysis, factor loadings were observed after rotation (*Table 7*). When presenting the results of the factor analysis, a factor was considered significant if it had a primary loading greater than 0.50.

Table 7. Factor loading after rotation (Republic of Serbia)

Variables	Component	
	1	2
Familiar producer	0.900	
The product is advertised	0.869	
Attractive packaging	0.789	
The product is appealing	0.618	
Origin of the product(imported or domestic)	0.526	
Product Quality		0.815
The best price-quality ratio		0.780
Recommendation		0.699
Clearly stated expiration date		0.671
Affordable price		0.524
Cronbach's Alpha	0.866	0.812
AVE	0.569	0.846
CR	0.517	0.829

Source: Author's interpretation

As shown in Table 7, the first factor exhibits the highest factor loading values for the first five statements, which can collectively be categorized under the name Market factor. The second factor is defined through five statements; when analyzing this factor, it can be called the Production and Economic Factor.

The obtained data also indicate that the factor loadings of the statements vary across different factors. Based on their values, the statements with the greatest influence on each factor can be identified. The highest factor loading of the Market factor has the statement that implies that the respondent's purchase decision is influenced by whether they know

the manufacturer (0.900), and the lowest is the statement that the respondents look at the origin of the product when making a purchase decision (0.526). The second factor mostly fulfills the statement that the product quality (0.815) influences respondents' purchase decisions, while the statement that the respondents make decisions about purchasing a product based on its affordable price satisfies the least (0.524). From previous table it can also be seen that AVE and CR values in this case are relatively low, but CFA will be conducted to determine the accuracy of this analysis.

Reliability and validity are essential measures of scale quality (Ning et al., 2024). Following the application of EFA, the model requires validation, with the next step involving an assessment of its reliability and validity through CFA (Table 8).

Table 8. CFA results (Republic of Serbia)

Factor	Variable	Loadings	AVE	CR	Cronbach's Alpha	p-value
Market	Familiar producer	0.880	0.582	0.872	0,856	0.000
	The product is advertised	0.845				0.000
	Attractive packaging	0.768				0.000
	The product is appealing	0.716				0.000
	Origin of the product(imported or domestic)	0.567				0.000
Production and Economic	Product Quality	0.656	0.567	0.822	0,810	0.000
	The best price-quality ratio	0.821				0.000
	Recommendation	0.674				0.000
	Clearly stated expiration date	0.577				0.000
	Affordable price	0.728				0.000
df=34; χ^2=84.695; CFI=0.971; RMSE=0.056						

Source: Author's interpretation

The CFA model demonstrates sufficient goodness-of-fit indices to validate the structure. Specifically, the model has 34 degrees of freedom, a CFI of 0.971 (above the acceptable threshold of 0.90), and an RMSEA of 0.056. All fit indices fall within acceptable ranges. The results in the previous table indicate that the model's factor loadings exceed 0.5, reflecting a strong relationship between the observed and latent variables. The average variance extracted (AVE) for both factors is above 0.5, confirming good validity, while the composite reliability (CR) exceeds 0.7, meeting the standard criterion. Cronbach's alpha values for both factors are above 0.8, demonstrating strong internal consistency and aligning with established norms. Notably, based on the factor loadings, the Market factor is the most explanatory. Similar to the EFA results, the statement with the highest influence on purchasing decisions is whether the manufacturer is known (0.880).In the case of the Production and Economic factors, the situation is somewhat different; this factor is mostly explained by the statement that the price-quality ratio is the most important for them when deciding on a purchase (0.821), while the statement that the respondents make a decision about purchasing a product based on clearly stated expiration date (0.577).

After the factor analysis, multiple linear regression analysis was conducted to determine whether the obtained factors significantly impact GDP growth *(Table 9).*

Table 9. Regression analysis results (Republic of Serbia)

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	Std. Error	Beta		
Constant	3.169	0.182		17.407	0.000
Market	0.207	0.240	0.076	0.863	0.389
Production and Economic	-0.173	0.253	-0.060	-0.685	0.494

Source: Author's interpretation

The results of the regression analysis indicate that none of the identified factors had a statistically significant effect on GDP growth ($p>0.05$).

Factorial analysis - Montenegro

To identify the key factors influencing the decision to buy cheese, the same ten research questions were posed to respondents in Montenegro (Table 10). Harman's single-factor test was applied to check for potential bias in the results (Podsakoff et al., 2003). The test findings indicate that, using principal component analysis, the total extracted variance was below 50% (47.414%), suggesting no significant bias effects.

Table 10. Descriptive statistics of variables used in factorial analysis (Montenegro)

	Montenegro	
Variable	**Mean**	**Standard deviation**
Product Quality	3.56	1.432
Origin of the product (imported or domestic)	3.31	1.265
Attractive package	2.95	1.371
Clearly stated expiration date	3.72	1.186
Affordable price	3.42	1.227
Recommendation	3.46	1.194
Familiar producer	2.97	1.327
Advertised product	2.97	1.327
Appealing product	3.17	1.308
The best price-quality ratio	3.68	1.227

Source: Author's interpretation

Observing the variables related to the product characteristics on the basis of which the respondents make a decision about buying cheese, the respondents mostly agreed with the fact that the best ratio of price and quality is the crucial characteristic they consider when making a decision (Mean=3.681). In addition to this characteristic, the respondents expressed the highest degree of agreement with the statement that when making a purchase decision, they consider the quality of the product (Mean=3.569). Respondents showed the lowest degree of agreement with the statement that when

making a decision to buy cheese, they consider attractive packages (Mean=2.951). and advertised products (Mean=2.972). As in the previous instance, the validity of factor analysis was evaluated prior to its application using the Kaiser-Meyer-Olkin test and Bartlett's test of sphericity. (*Table 11)*.

Table 11. The Kaiser-Meyer-Olkin (KMO) and Bartlett's test of justification of factor analysis (Montenegro)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.903
Bartlett's Test of Sphericity	Approx. Chi-Square	1149.413
	Df	45
	p-value	0.000

Source: Author's interpretation

The Kaiser-Meyer-Olkin coefficient was calculated at 0.903, significantly exceeding the recommended threshold of 0.6 (Hair et al., 2006), confirming the suitability of factor analysis for this set of variables. Bartlett's test of sphericity ($p<0.05$) further verified the presence of statistically significant correlations among the observed variables. The principal components method was employed to identify factors within the correlation matrix. After factor extraction, Varimax rotation was applied, and the values for the two extracted factors were presented (*Table 12*).

Table 12. Total variance explained (Montenegro)

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	7.061	70.612	70.612	7.061	70.612	70.612	4.196	41.958	41.958
2	1.098	10.982	81.593	1.098	10.982	81.593	3.964	39.635	81.593

Source: Author's interpretation

As presented in Table 13, the first factor exhibits the highest factor loadings for the initial six statements, allowing it to be categorized as Production and Economic Factors. The second factor is characterized by four statements. When analyzed, this factor can be defined as the Market factor.

Table 13. Factor loading after rotation (Montenegro)

Variables	Component	
	1	2
Product Quality	0.883	
Clearly stated expiration date	0.859	
The best price-quality ratio	0.783	
Affordable price	0.772	

Variables	Component	
	1	2
Recommendation	0.684	
Origin of the product (imported or domestic)	0.675	
Attractive package		0.909
Product is appealing		0.883
Advertised product		0.872
Familiar manufacturer		0.754
Cronbach's Alpha	0.935	0.948
AVE	0.608	0.734
CR	0.902	0.916

Source: Author's interpretation

It is also evident that the factor loadings of the statements vary across different factors. Within the Production-Economic factor, the highest loading is associated with the statement indicating that respondents' purchasing decisions are influenced by product quality (0.883), while the lowest is linked to the statement that respondents consider the product's origin during their decision-making process (0.675). The second factor is most satisfied by the statement that the respondents' decision to buy a product is influenced by attractive packaging (0.909), and the least by the statement that respondents make a decision to buy a product based on whether they know the manufacturer (0.754). The results of the CFA model for Montenegro are presented in the next table *(Table 14).*

Table 14. CFA results (Montenegro)

Factor	Variable	Loadings	AVE	CR	Cronbach's Alpha	p-value
Production-Economic	Product Quality	0.799	0.711	0.872	0.933	0.000
	Clearly stated expiration date	0.852				0.000
	The best price-quality ratio	0.859				0.000
	Affordable price	0.903				0.000
	Recommendation	0.820				0.000
	Origin of the product (imported or domestic)	0.824	0.823	0.949	0,949	0.000
Market	Attractive package	0.899				0.000
	Product is appealing	0.914				0.000
	Advertised product	0.948				0.000
	Familiar manufacturer	0.866				0.000
df=34; χ^2=82.359; CFI=0.974; RMSE=0.047						

Source: Author's interpretation

The results of the CFA model indicate that the structure is valid, supported by goodness-of-fit indices. The model includes 34 degrees of freedom, a CFI of 0.974 (greater than 0.90), and an RMSEA of 0.047. All model fit index values were acceptable. The results shown in the previous table suggest that the factor loadings of the model exceed the threshold of 0.5, which implies a high correspondence between the observed and latent

variables. The average variance (AVE) of both factors is at the level of over 0.7 (>0.5), which implies good validity; the results of the composite reliability (CR) of the model exceed 0.7, fulfilling the standard criterion. Cronbach's alpha was used to assess the scale's internal consistency, and the values for both factors were above 0.9, which is in accordance with established standards. Based on the results of the CFA, it can be seen that the first Production-Economic factor is most explained by the statement that implies that when purchasing a product, affordable prices are important to customers (0.903), and the least by the statement that implies that the quality of the product is important to them (0.799). The second factor, the Market factor, is best explained by the statement that when purchasing a product, the most important thing for customers is that it is advertised (0.948), and the least important is that they know the manufacturer (0.866).

And in the case of the sample from Montenegro, after conducting the factor analysis, the method of multiple linear regression was applied to determine whether the identified factors have a statistically significant impact on GDP growth *(Table 15).*

Table 15. Regression analysis results (Montenegro)

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	Std. Error	Beta		
Constant	2.845	0.817		3.484	0.001
Production-Economic	0.181	0.812	0.019	0.222	0.824
Market	-0.413	0.815	-0.043	-0.507	0.613

Source: Author's interpretation

According to the regression analysis, none of the identified factors were found to have a statistically significant influence on GDP growth (p>0.05).

Discussion

The first research question was (Q_1): What is the agri-food market's profile of cheese consumption in both regions? The research obtained statistical data on cheese consumption and consumer preferences. It revealed that in the Republic of Serbia, more than half of the respondents consume cheese once a week, while in Montenegro, the largest percentage of respondents declared that they consume cheese every day, which is more often than the ones included in the research of Perez et al. (2014).

Considering the monthly cheese consumption, Montenegrin consumers are ahead of respondents from the Republic of Serbia, as the highest percentage of respondents consume more than a kilogram of cheese per month. The research showed that in the Republic of Serbia, the most significant percentage of respondents most often consume cheese with breakfast as a side dish, while in Montenegro, cheese is most often consumed as an integral part of a large number of savory dishes. More than half of the respondents from both regions stated that they most often buy cheese in supermarkets or stores, which also coincides with research conducted by Tendero and Bernabeu (2005).

The second research question was designed to answer the following question: (Q_2): Are there any differences in BC? The research has shown that in both regions, respondents who have higher incomes have higher monthly cheese consumption, which was also confirmed by other research worldwide (Prättälä et al., 2003). The research also showed that respondents with lower monthly incomes most often consume cheese as a side dish with breakfast or with salty dishes, while respondents with higher monthly incomes more often consume cheese on its own, hedonic.

After that, the third research question had the task of finding an answer (Q_3): Which factors influence BC, i.e., cheese procurement in both afri-food markets, and are there any differences? For consumers from the Republic of Serbia, quality is the decisive characteristic they consider when making a purchase decision. In addition to quality, when making a purchase decision, they consider the best price-quality ratio of the product. The least important is the attractive packaging and whether the product is advertised, although some studies prove their exceptional importance (Vaflen et al., 2023), and often conditioned by the personalities who advertise those products (Calvo-Porral et al., 2021). Similarly, Montenegrin consumers agreed that the best price-quality ratio is the decisive feature they consider when making a decision. In addition to this feature, consumers consider product quality when making a purchase decision. Consumers least consider the attractiveness of the packaging and whether the product is advertised, contrary to some research (Calvo-Porral et al., 2017).

The set research CB-Cheese scale proved to be appropriate because the research defined significant factors that influence consumer preferences when choosing cheese: Market factors and Production-economic factors.

Conclusions

Cheese is an important agri-food product, and understanding BC and their preferences is essential to its proper and successful marketing on the regional market. The research conducted led us to the conclusion that cheese is a significant agri-food item in the daily diets of consumers from Southeast Europe, and that these consumers' preferences vary amongst themselves due to cultural, demographic, and geographic factors. Research has demonstrated that one of the most important factors in consumption and selection is income level. The important point to note is that there is a clear preference differentiation between various Market elements and Production-economic factors. The acquired data will offer precise recommendations for the placement of cheeses on the domestic market and for agri-food marketing. Based on the obtained data, entrepreneurs can improve their sales approaches, focusing on new consumer demands (Maceín et al., 2019). Based on the data obtained on the increasing attention to cheese consumer preferences, this research can help increase profitability (Bir et al., 2020).

Theoretical and practical contribution of research

The theoretical contribution of this research lies in the integration of information gathered from a review of contemporary literature on the topic, combined with data

collected from consumer research conducted in the studied localities.The practical contribution of the conducted research is reflected in the methodological approach (further application of the created CB-Cheese scale), data collection, and processing, but mostly in the information that provides insight into the behavior of consumers and their preferences when consuming cheese, which gives clear instructions for the placement of cheese in the investigated areas. The results of this research can be used in order to improve access and positioning of cheeses in the market of Serbia and Montenegro, but also beyond.

Recommendations for further research

The established research could be upgraded through the data collection on the types of cheese and the characteristics that have the highest consumption. The emphasis could be placed on domestic types of cheese (locally produced) but also on international cheeses that are consumed more. By following the global model of individual research, significant data might be gathered by establishing a connection between the health status and body mass of dairy product users and their intake (Alegría-Lertxundi et al., 2014). Additional research could be directed at measuring agri-food marketing effects.

Acknowledgments

The authors are grateful to the Ministry of Science, Technological Development and Innovation of R. Serbia (Grant No. 451-03-66/2024-03/200125 & 451-03-65/2024-03/200125), the Provincial Secretariat for Higher Education and Scientific Research (Grant No. 142-451-3503/2023-2) and the Innovation Fund of Montenegro (Grant No. 368-4123) for supporting this work.

References

1. Administration for Statistics of Montenegro. *Population Census 2011*. Available online: https://www.monstat.org/cg/page.php?id=322&pageid=322 (accessed on September 30th 2023)
2. Alegría-Lertxundi, I., Rocandio Pablo, A., & Arroyo-Izaga, M. (2014). Cheese consumption and prevalence of overweight and obesity in a Basque adult population: a cross-sectional study. *International Journal of Food Sciences and Nutrition, 65*(1), 21-27.
3. Almli, V., Næs, T., Enderli, G., Sulmont-Rossé, C., Issanchou, S., & Hersleth, M. (2011). Consumers' acceptance of innovations in traditional cheese. A comparative study in France and Norway. *Appetite***,** 57, 110-120. https://doi.org/10.1016/j.appet.2011.04.009.
4. Bahety, P. K., Sarkar, S., De, T., Kumar, V., & Mittal, A. (2022). Exploring the factors influencing consumer preference toward dairy products: an empirical research. Vilakshan-XIMB *Journal of Management*. https://doi.org/10.1108/XJM-03-2022-0062

5. Bir, C., Widmar, N., Thompson, N., Townsend, J., & Wolf, C. (2020). US respondents' willingness to pay for Cheddar cheese from dairy cattle with different pasture access, antibiotic use, and dehorning practices. *Journal of Dairy Science* https://doi.org/10.3168/jds.2019-17031.
6. Braghieri, A., Girolami, A., Riviezzi, A. M., Piazzolla, N. &Napolitano, F. (2014). Liking of traditional cheese and consumer willingness to pay. *Italian Journal of Animal Science*, 13(1), 3029.
7. Bryant, F.B., Yarnold, P.R., Michelson, E.A. (1999). Statistical Methodology. Acad. Emerg. Med., 6, 54–66.
8. Calvo Porral, C., & Levy-Mangin, J. P. (2016). Food private label brands: the role of consumer trust on loyalty and purchase intention. *British Food Journal*, 118(3), 679-696.
9. Calvo-Porral, C., & Lévy-Mangin, J.P. (2017). Specialty food retailing: examining the role of products' perceived quality. *British Food Journal*, 119(7), 1511-1524.
10. Calvo-Porral, C., Rivaroli, S., & Orosa-González, J. (2021). The influence of celebrity endorsement on food consumption behavior. *Foods*, 10 (9), 2224.
11. Davis, C., Blayney, D., Dong, D., Yen, S. & Johnson, R. (2011). Will Changing Demographics Affect U.S. Cheese Demand? *Journal of Agricultural and Applied Economics*, 43, 259 - 273. https://doi.org/10.1017/S107407080000420X.
12. Dekker, L., Vinke, P., Riphagen, I., Minović, I., Eggersdorfer, M. Heuvel, E., Schurgers, L., Kema, I., Bakker, S., & Navis, G. (2019). Cheese and Healthy Diet: Associations With Incident Cardio-Metabolic Diseases and All-Cause Mortality in the General Population. *Frontiers in Nutrition*, 6. https://doi.org/10.3389/fnut.2019.00185.
13. Echeverría, R., Montenegro, A. B., Albarrán, E. S., & Charry, L. (2021). Consumer willingness to pay for cheese with a social sustainability attribute. *Ciência Rural*, 52.
14. Ferrão, A.C., & Guine, R.P.F. (2019). Cheese: Nutritional Aspects and Health effects. In *Cheeses Around the World*; Ferrão, A.C., dos Reis Correia, P.M., de Pinho Ferreira Guiné, R., Eds.; NOVA Science Publishers: New York, NY, USA, pp. 17–44. ISBN 978-1-53615-419-1.
15. Fox, P.F., Uniacke-Lowe, T., McSweeney, P.L.H., & O'Mahony, J.A. (2015). Chemistry and biochemistry of cheese. *Dairy chemistry and biochemistry*, 499-546.
16. Guiné, R.P.F., & Florenca, S.G. (2019). The economic and social importance of cheese. In *Cheeses Around the World*; Ferrão, A.C., dos Reis Correia, P.M., de Pinho Ferreira Guiné, R., Eds.; NOVA Science Publishers: New York, NY, USA pp. 1–16. ISBN 978-1-53615-419-1.
17. Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). Multivariate Data Analysis; Prentice Hall Pearson Education: Upper Saddle River, NJ, USA.

18. Ivanović, V., Kalenjuk-Pivarski, B., & Šmugović, S. (2022). Traditional gastronomy products: Usage and significance in tourism and hospitality of southern Bačka (AP Vojvodina). *Zbornik radova Departmana za geografiju, turizam i hotelijerstvo,* (51-1), 64-72. DOI: 10.5937/ZbDght2201064I
19. Leesatapornwongsa, F., Thawesaengskulthai, N., Vaiyavuth, R. (2023). Developing a Sustainability Measurement for Innovation Performance for the Food Industry. Sustainability, 15, 16714.
20. Maceín, J.L.C., Iriondo DeHond, M., & Miguel, E. (2019). Cheese consumption culture in Central Spain (Madrid Region): drivers and consumer profile. *British Food Journal*, 122, 561-573.
21. Marcoz, E. M., Melewar, T. C., & Dennis, C. (2016). The value of region of origin, producer and protected designation of origin label for visitors and locals: the case of fontina cheese in Italy. *International Journal of Tourism Research*, 18(3), 236-250.
22. Menozzi, D., Yeh, C.-H., Cozzi, E., & Arfini, F. (2022). Consumer Preferences for Cheese Products with Quality Labels: The Case of Parmigiano Reggiano and Comté. *Animals*, 12, 1299. https://doi.org/10.3390/ani12101299
23. Mesías, F. J., Escribano, M., Rodriguez De Ledesma, A., & Pulido, F. (2003). Market segmentation of cheese consumers: an approach using consumer's attitudes, purchase behaviour and sociodemographic variables. *International journal of dairy technology*, 56(3), 149-155
24. Miloradović, Z., Blažić, M., Barukčić, I., Font i Furnols, M., Smigić, N., Tomašević, I., & Miocinović, J. (2022). Serbian, Croatian and Spanish consumers' beliefs towards artisan cheese. *British Food Journal*, 124(10), 3257-3273.
25. Nájera, A.I., Nieto, S., Barron, L.J.R., & Albisu, M. (2021). A review of the preservation of hard and semi-hard cheeses: Quality and safety. *Journal of Environmental Research and Public*, 18, 9789.
26. Ning, Y., Zhang, C., Xu, B., Zhou, Y., Wijaya, T.T. (2024). Teachers' AI-TPACK: Exploring the Relationship between Knowledge Elements. Sustainability, 16, 978. https://doi.org/10.3390/ su16030978
27. Pantić, N., Cvijanović, D., & Imamović, N. (2021). Economic analysis of the factors influencing the supply and demand of raspberry. *Ekonomika poljoprivrede*, *68*(4), 1077-1087.
28. Paskaš, S., Miočinović, J., Lopicić-Vasić, T., Mugosa, I., Pajić, M., & Becskei, Z. (2020). Consumer attitudes towards goat milk and goat milk products in Vojvodina. *Mljekarstvo*, 70 (3), 171-183.
29. Pérez, E. V. B., Aguilar, C., Mújica, P. M. T., Vera, R. R., Cerda, M., & Briones, I. (2014). Characterization of cheese consumers in Santiago Province, Chile. Ciencia e investigación agraria: revista latinoamericana de ciencias de la agricultura, 41(3), 327-335.
30. Petković, G., & Užar, D. (2020). Marketing channels in value creation and delivery

of cheese in the Republic of Serbia. *Anali Ekonomskog fakulteta u Subotici*, 43, 101-15. doi: 10.5937/AnEkSub2001101P

31. Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psycholo*gy, 88, 879–903
32. Prättälä, R., Groth, M., Oltersdorf, U., Roos, G., Sekuła, W., & Tuomainen, H. (2003). Use of butter and cheese in 10 European countries: a case of contrasting educational differences. *European journal of public health*, 13 2, 124-32. https://doi.org/10.1093/EURPUB/13.2.124
33. Rebollar, R., Lidón, I., Gil, I., Martin, J., Fernández, M., & Riveres, C. (2016). The influence the serving suggestion displayed on soft cheese packaging has on consumer expectations and willingness to buy. *Food Quality and Preference*, 52, 188-194. https://doi.org/10.1016/J.FOODQUAL.2016.04.015.
34. Republic Institute of Statistics. *Population Cencus 2022*. Available online: https://popis2022.stat.gov.rs/sr-Cyrl/#currentItemUrl (accessed on September 30th 2023)
35. Sánchez-Villegas, A., Martínez, J., Prättälä, R., Toledo, E., Roos, G., & Martínez-González, M. (2003). A systematic review of socio-economic differences in food habits in Europe: consumption of cheese and milk. European *Journal of Clinical Nutrition*, 57, 917-929. https://doi.org/10.1038/sj.ejcn.1601626.
36. Schmitt, E., Keech, D., Maye, D., Barjolle, D., & Kirwan, J. (2016) Comparing the Sustainability of Local and Global Food Chains: A Case Study of Cheese Products in Switzerland and the UK. *Sustainability*, 8, 419. https://doi.org/10.3390/SU8050419.
37. Schumacker, R.E., Lomax, R.G. (2004). A Beginner's Guide to Structural Equation Modeling; Psychology Press: London, UK.
38. Scozzafava, G., Gerini, F., Boncinelli, F., Contini, C., Marone, E., & Casini, L. (2020). Organic milk preference: Is it a matter of information? *Appetite*, *144*, 104-477.
39. Skalkos, D., Bamicha, K., Kosma, I.S., & Samara, E. (2023). Greek Semi-Hard and Hard Cheese Consumers' Perception in the New Global Era. *Sustainability*, 15, 5825. https://doi.org/10.3390/su15075825
40. Statista, Per capita consumption of cheese worldwide in 2022, by country (in kilograms), Available online: https://www.statista.com/statistics/527195/consumption-of-cheese-per-capita-worldwide-country/
41. Stošić, T., Šmugović, S., Ivanović, V., Kalenjuk Pivarski, B., & Stošić, T. (2023). Sensory characteristics of local cheese from the Pčinja district as a potential for gastro-tourist offers. *Turističko poslovanje*, (31):49-61. doi: 10.5937/turpos0-43805
42. Šmugović, S., Knežević, N., & Ivanović, V. (2021). International cheeses in the focus of consumers: Connoisseurship, selection and preferences. *Zbornik radova Departmana za geografiju, turizam i hotelijerstvo*, *50-2*, 141-152. https://doi.org/10.5937/ZbDght2102141S

43. Tabachnick, B.G., Fidell, L.S., Ullman, J.B. (2013). Using Multivariate Statistics; Pearson: Boston, MA, USA, Volume 6.

44. Tendero, A., & Bernabeu, R. (2005). Preference structure for cheese consumers: a Spanish case study. *British Food Journal*, 107(2), 60-73.

45. Veflen, N., Velasco, C., & Kraggerud, H. (2023). Signalling taste through packaging: The effects of shape and colour on consumers' perceptions of cheeses. *Food Quality and Preference*, 104, 104742.

46. Zheng, X., Shi, X., & Wang, B. (2021). A Review on the General Cheese Processing Technology, Flavor Biochemical Pathways and the Influence of Yeasts in Cheese. *Frontiers in Microbiology*, 12, 703284.