

Factors Influencing Sour Cream Consumption and Purchase Behavior - Evidence from Kosovo

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Abstract: This study investigates the socio-economic and demographic factors influencing sour cream consumption in Kosovo. The primary objective is to identify key determinants shaping consumer purchasing behavior and to provide insights for local producers and policymakers. Data were collected from 300 respondents across Kosovo between May and June 2022. Statistical analysis using the Chi-Square test revealed that 63% of respondents buy sour cream with varying frequency. The findings indicate that variables such as age, household income, family size, product quality, origin, brand, and packaging significantly influence purchasing frequency, whereas gender, education level, and price do not show statistically significant effects. Further segmentation through cluster analysis revealed three distinct consumer profiles—practical and moderate, conscious and analytical, and traditional and experience-oriented—each with unique preferences and behavioral traits. These insights offer a robust foundation for developing targeted marketing strategies and evidence-based policies aimed at enhancing consumer satisfaction and strengthening the competitiveness of Kosovo's dairy sector.

Keywords: Sour cream; Consumer behavior; Purchase factors; Kosovo; Dairy products

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1. Introduction

The Republic of Kosovo has an area of 10,905.25 km². It is located in southeastern Europe, bordered by Albania in the southwest, Montenegro in the northwest, Serbia in the northeast, and Macedonia in the south. The territory stretches within latitudes 41° 51' and 43° 16' N and longitudes 19°59' and 21°47' E. The territory is characterized by diverse topography and varying altitudes, contributing to its agro-ecological diversity and potential for agricultural development. Agriculture is widely recognized as a key driver of development and one of the sectors with the highest growth potential in Kosovo. Within this sector, the dairy industry plays a crucial role, contributing approximately 10% to the country's GDP, providing employment opportunities, and enhancing household incomes, particularly in rural areas.

The average farm size in Kosovo is 1.99 hectares, typically fragmented into five to seven plots. The 1998–1999 conflict devastated much of the country's agricultural infrastructure, severely damaging production capabilities and weakening public trust in institutions. Since then, considerable progress has been made: infrastructure has been rebuilt, livestock and crops replenished, democratic processes restored, and local products have returned to store shelves (Grygiel, 2007). Agriculture is one of the main sectors of the Kosovo economy in terms of employment and contribution to GDP and is considered a priority sector by the Government of Kosovo. This

sector was characterized for a long time by an unsuitable structure of crops, primitive equipment, and deficient performance (Muriqi et al., 2019). The last conflict in 1999 caused significant damage to the entire economy, including agriculture. Additionally, Kosovo has unfavorable farm structures, with an average Utilized Agricultural Area (UAA) per holding of 1.5 ha, fragmented into seven plots, and most of the crop farms are not performing efficiently despite the huge potential for technical efficiency improvement. The total number of persons involved in agriculture in Kosovo is 362 700, and the agricultural farmers who are registered in Kosovo are 130 775 (Miftari, 2017).

The milk sector is a vital pillar of Kosovo's agri-food system, characterized by its growing contribution to food security and rural employment. Following post-war reconstruction, the dairy industry has experienced steady growth, particularly in raw milk production and processing capacity. According to the Ministry of Agriculture, Forestry and Rural Development (MAFRD, 2018), approximately 84% of national demand for milk and dairy products is met by domestic production. However, a significant portion of this output stems from the informal market, including unregistered family farms and door-to-door sales, which limits traceability and competitiveness in the formal retail sector.

Currently, Kosovo's dairy value chain includes 45 licensed dairies (KDPA, 2020) and over 4,200 commercial farms each housing more than five dairy cows. These farms collectively supply around 62 million liters of milk annually to the formal sector (MAFRD, 2020). The sector produces a diverse range of products such as pasteurized milk, UHT milk, yogurt, soft white cheese, Sharri cheese, cottage cheese, sour cream, and ice cream. Per capita dairy consumption in Kosovo is estimated at approximately 166 kilograms per year, or 0.5 kilograms per day, placing it in line with consumption levels observed in other Southeastern European countries (Recura, 2020).

Despite the structural limitations—such as fragmented land ownership, high production costs, and weak marketing channels—the milk sector remains among the most resilient and promising within Kosovo's agricultural economy. Numerous development programs and donor-supported interventions have focused on strengthening the sector through capacity-building, veterinary services, quality assurance, and improved milk collection infrastructure (Bytyqi et al., 2022).

In recent years, the dairy sector has also been a focal point for policy harmonization with European Union standards. Efforts have been made to align veterinary and food safety regulations, upgrade laboratory testing capacity, and encourage farmer registration and certification schemes. These measures are part of broader initiatives to improve product quality, facilitate market access, and increase competitiveness for eventual integration into EU markets. Although challenges remain, particularly in enforcement and farmer awareness, the trend toward standardization represents a positive step toward sustainable sector development.

Previous research on dairy consumption has consistently shown that socio-economic and demographic factors play a significant role in shaping consumer behavior (Ates and Ceylan, 2010). Consumer behavior is considered a fundamental dimension of human behavior, driven by the pursuit of satisfaction through consumption (Kita et al., 2002). However, purchasing behavior is not limited to the act of buying; it encompasses the entire decision-making process, from need recognition to post-purchase evaluation (Kurajdova & Petrovicova, 2015). Globally, variables such as gender, age, income, education, presence of young children, ethnicity, and knowledge levels have been found to significantly influence household expenditures on dairy products (Kapaj, 2018).

In Kosovo, while general consumption trends for dairy products have been studied, limited attention has been given to specific products such as sour cream. This study seeks to address that research gap by focusing exclusively on sour cream consumption, identifying how various socio-demographic and product-related factors influence consumer preferences. The novelty of this study lies in its targeted examination of sour cream—an often-overlooked dairy product in consumer research. By exploring preferences and consumption habits, the research aims to provide actionable insights for local producers to align their products with market demand. Drawing on quantitative research methods and statistical analysis, this study contributes to the growing body of knowledge in agricultural economics and consumer behavior, offering valuable information for both business and policy decision-making.

1.1 Literature Review

Understanding consumer behavior in the dairy sector is essential for both producers and policymakers aiming to meet market demand and support domestic agricultural development. Numerous studies have shown that consumer purchasing decisions for dairy products are shaped by a combination of socio-demographic characteristics, product attributes, and contextual economic factors. However, while products like milk, yogurt, and cheese have been extensively studied, niche dairy items such as sour cream remain underexplored, particularly in emerging or post-conflict markets such as Kosovo. Globally, socio-economic factors such as income, education, household composition, and urban-rural residence have been identified as key determinants of dairy product consumption. For instance, Ates and Ceylan (2010) found that income level and household size significantly affected the consumption of milk, yogurt, and cheese in Turkish households. Likewise, (Drichoutis, et al., 2005) highlighted that income and education levels are associated with consumer willingness to pay for quality-certified dairy products in Greece. These findings are consistent with the work of Lusk & Briggeman (2009) who introduced the concept of food values, emphasizing that individual preferences—such as taste, safety, price, and nutrition—drive consumption decisions across food categories.

In Central and Eastern Europe, several studies have explored the role of quality perception, local origin, and branding in shaping consumer trust. For example, (Grunert, 2005) argued that consumers in transitional economies are increasingly sensitive to cues such as brand recognition, labeling, and packaging, especially for products that lack traceability or certification. In Romania, Pop and Stoian (2019) found that urban consumers are more inclined to purchase dairy products with protected designation of origin (PDO) labels, suggesting a growing awareness of authenticity and quality assurance. Similar trends were reported by Banati (2011) in Hungary, where consumers exhibited strong preferences for domestic dairy products due to perceived freshness and food safety concerns.

Product-specific attributes such as taste, packaging, and shelf life also play an essential role in consumer behavior. Kurajdova and Petrovicova (2015) emphasized that packaging, branding, and perceived quality were more important than price in influencing dairy purchasing decisions across multiple European markets. Furthermore, Adenuga et al. (2018) in Ireland found that consumer preferences in the dairy sector are increasingly shaped by sustainability and animal welfare concerns, adding new dimensions to the traditional quality-price dynamic.

From a behavioral perspective, consumer satisfaction and habitual behavior are recognized as crucial components in food purchasing. Kita et al., (2002) argued that consumer behavior encompasses a series of processes including pre-purchase evaluation, brand loyalty, and repeat purchases, all of which are shaped by lifestyle and socio-cultural context. Additionally, Gracia and de Magistris (2008) stressed that trust and experience with a product often override rational assessments of price or certification, particularly in staple food categories like dairy.

In the context of Kosovo, the literature remains relatively limited, though some contributions have emerged in recent years. Bytyqi et al., (2009) have analyzed dairy consumption trends, noting the importance of freshness, hygiene, and brand familiarity in purchasing decisions. (Gjonbalaj et al., 2009) examined consumer behavior in wine and dairy markets, highlighting the influence of socio-demographic variables, though their analysis lacked product-specific granularity. (Grygiel, 2007) provided a broader value chain analysis of Kosovo's dairy sector, noting post-war reconstruction challenges, informal market dominance, and regulatory gaps. Bajrami (2016) further emphasized structural inefficiencies in the dairy sector, including fragmented farms, limited quality control, and a weak policy environment. The purchasing behavior regarding sour cream, specifically, has received minimal attention in Kosovo and other comparable contexts. Sour cream, although commonly consumed in households and used in traditional cuisine, is often aggregated under broader dairy categories in consumer surveys. This lack of disaggregated data hinders the ability to develop targeted marketing strategies or evidence-based policy interventions.

Therefore, this study aims to fill a critical research gap by isolating sour cream as a product category and investigating the socio-demographic and product-related factors that influence its consumption. In doing so, it draws on international frameworks of food behavior analysis while contextualizing the findings within the Kosovar dairy sector's unique economic and cultural setting. The insights gained from this research are expected to inform both local producers and policymakers, contributing to a more nuanced understanding of consumer behavior in the evolving landscape of food consumption in Southeast Europe.

2. Materials and Methods

This study employed a quantitative cross-sectional survey design to investigate the socio-demographic and product-related factors influencing sour cream consumption in Kosovo. Data collection was conducted between May and June 2022, encompassing all regions of the country to ensure geographic representativeness. A total of 300 respondents participated in the survey. Participants were selected using a stratified random sampling technique based on key demographic indicators such as region, age group, and gender, in order to ensure a balanced and diverse sample reflective of the population. The sampling frame was constructed using available municipal demographic data and stratified into urban and rural segments to capture consumption differences.

The data were gathered through face-to-face structured interviews, conducted by trained enumerators. The questionnaire was developed based on a review of relevant literature and existing validated instruments used in similar consumer behavior studies. It was pre-tested with 20 individuals to ensure clarity, cultural appropriateness, and reliability. Feedback from the pre-test was used to refine question wording, response options, and the overall flow of the survey.

The finalized questionnaire comprised closed-ended questions grouped into three sections: (1) demographic and socio-economic characteristics (e.g., age, gender, education, income, family size), (2) purchasing frequency and habits related to sour cream, and (3) perceptions and preferences regarding sour cream attributes (e.g., brand, quality, price, packaging, and origin) (Gjonbalaj, et al., 2009).

The collected data were processed and analyzed using SPSS (Statistical Package for the Social Sciences). Descriptive statistics were used to summarize the demographic profiles of respondents. To examine the associations between categorical variables—such as socio-demographic factors and sour cream purchasing frequency—the Chi-Square test of independence was applied. Additionally, Cramer's V was calculated to assess the strength of the relationships. The analysis was guided by a null hypothesis that assumes no association between the independent variables and consumer purchasing behavior.

This approach allowed for a rigorous examination of whether sour cream consumption patterns are significantly influenced by variables such as age, income, family size, education, and product characteristics. The formula for calculating a Chi-Square is (McHugn, 2013; MAFRD, 2021):

$$\sum \chi^2_{i-j} = \frac{(O-E)^2}{E} \quad (1)$$

Where:

O - Observed value

E - Expected value

χ^2 - The cell Chi-square value

$\sum \chi^2$ - Formula instruction to sum all the cell Chi-square values

χ^2_{i-j} - $i-j$ is the correct notation to represent all the cells, from the first cell (i) to the last cell (j);

This study tested the main hypotheses regarding the independence between demographic and socio-economic characteristics of customers (Slama and Tashchian, 1985). The test statistic for the χ^2 test of independence involves comparing observed (sample data) and expected frequencies in each cell of the table. The expected frequencies are computed assuming that the

null hypothesis is true. The null hypothesis states that the two variables (the grouping variable and the outcome) are independent. The definition of independence is as follows (Sullivan, 2019):

Two events, A and B, are independent if $P(A|B) = P(A)$, or equivalently,

$$\text{if } P(A \text{ and } B) = P(A) P(B). \quad (2)$$

To explore deeper patterns and segment consumer behavior, a K-means cluster analysis was also conducted. Eleven variables, including frequency of consumption, satisfaction with product quality, perceived importance of branding, labeling, origin, and income influence, were standardized and used as input. The optimal number of clusters was determined based on silhouette score evaluation, and the clustering procedure enabled the identification of distinct consumer profiles. This segmentation analysis provided further insights into heterogeneous consumer preferences and behavior.

The study aimed to determine whether the purchase of sour cream and demographic and socio-economic are independent. Our research accurately identifies how the purchase of sour cream is affected by the household lifestyle and by customer demographics such as gender, age, education, economic background, and number of family members. Results indicate a significant dependence between sour cream buying habits and variables such as age, income level, family size as well as the origin of the product, the quality and the packaging of the product. According to the study, other variables such as gender, level of education, and product price do not have statistically significant dependence.

3. Results and Discussion

This part of the survey summarizes the main findings of the study of consumer behavior in the Kosovar sour cream market. Consumers have access to important indicators as well as statistical analysis results. To determine which parameters influence sour cream consumers' behavior in Kosovo, we used the Chi-Square test, Asymp. Sig (2 sides) and Cramer's V. The analysis has identified several influential variables that determine consumer behavior when it comes to sour cream purchases. Table 1 gives some evidence of statistically significant changes in the buying habits of Kosovo's sour cream customers.

Table 1: Significance level of socio-demographic influence variable in sour cream purchasing frequency

Variables	Calculated Pearson square	Df Chi-	Asymp. Sig (2 sided)	Cramer's V	Accept
According to gender	0.624	1	0.43 > 0.05 (NS)	0.046	Accept H_0
According to age group	11.826	4	0.02 < 0.05	0.19	Accept H_1
According to the level of education	5.965	3	0.11 > 0.05 (NS)	0.059	Accept H_0
According to the level of income	6.204	2	0.04 < 0.05	0.14	Accept H_1
According to the number of family members	15.683	9	0.04 < 0.05	0.23	Accept H_1

S = Significance for level $P < 0.05$; NS = No significance for level $P > 0.05$.

The analysis showed good results in identifying the variables that influence customer behavior when purchasing dairy sour cream. According to the survey data, 66.7 % of respondents consume dairy sour cream are men, and 33.3 % are women. This study found no significant relationship between the two categorical variables (gender and frequency of purchases of dairy sour cream) based on Chi-Square 0.624. That favors the hypotheses that variables are independent ($P\text{-value } 0.43 > 0.05$). According to the Chi-Square test, there is a statistical significance between the two variables (age groups and frequency of purchasing dairy sour cream). With 4 grades of ease and 5 % significance, the Chi-Square test presents 13,118, which supports the hypothesis that the variables are dependent. This hypothesis is supported also by the value of $P\text{-value } 0.02 < 0.05$ that indicates that age influences the rate of purchase of sour cream. The respondents who buy dairy sour cream are 38.6 % between 26 – 35 years old, 25 % between 19 – 25 years old, 24.3 % between 36 – 45 years old, 9.5 % older than 45 years old, and only 2.1 % younger (under 18).

Among the respondents who purchase sour cream, 45.3 % have only primary education, 44.0 % have secondary education, 8.0 % have higher education, and 2 % have postgraduate education. The values of tests Chi-Square 5.965 and $P\text{-value } 0.11 > 0.05$ indicate that there is no significant dependency between these two variables. According to the observed frequencies, income is related to whether or not people buy dairy sour cream. According to the survey, 28.6 % of respondents with incomes below € 250 buy sour cream, 52.4 % with incomes between € 251 and € 500, and 19.04 % with incomes above € 500 buy sour cream. With the value of the Chi-square test 6.204 and with the value $P\text{-value } 0.04 < 0.05$ show a significant dependence on the frequency of buying sour cream and the level of income. Based on the Chi-square statistical test, the dependence between the two categorical variables (family size and frequency of sour cream purchases) is statistically significant. This hypothesis is also supported by the $P\text{-value } 0.04 < 0.05$ (significant), which indicates that the frequency of buying sour cream depends on the family size. The questionnaire revealed that 30.7 % of respondents live in a four-member family, 26.5 % in a five-member family, and 19.05 % in a six-member family.

It is inconceivable to measure dairy sour cream purchase frequency without considering the perception of its main characteristics, such as price, quality, packaging, etc. Table 2 presents the results. From the questions of the respondents, it was estimated that there is a significant statistical relationship between the frequency of buying dairy sour cream and the origin of the product. The Chi-square test value was 9.351 and $P\text{-value } 0.025$. There was a non-statistically significant relationship between the product price and the frequency of purchase ($P\text{-value } > 0.05$). The Chi-square test value was 0.483 and $P\text{-value } 0.785$. A statically significant dependency appeared with product brand.

The Chi-square test value was 10.346 and $P\text{-value } 0.016$. Considerable dependency was shown between the frequency of sour cream purchasing and perception of sour cream quality. The value of the Chi-square test was 19.155 and $P\text{-value } 0.000 < 0.05$. Also, a significant relationship was also shown with the packaging of the product. The results generated for Chi-square was 9.408 and $P\text{-value } 0.024 < 0.05$.

Table 2: Significance level of the effect of sour cream characteristics in the frequency of sour cream purchasing

Variables	Calculated Pearson square	Df Chi-	Asymp. Sig (2 sided)	Cramer's V	Accept
The role of origin	9.351	3	0.025 < 0.05	0.18	Accept H_1

Price of sour cream	0.483	2	0.785 > 0.05 (NS)	0.04	Accept H ₀
Production brand	10.346	3	0.016 < 0.05	0.19	Accept H ₁
The quality	19.155	2	0.000 < 0.05	0.25	Accept H ₁
Packing	9.408	3	0.024 < 0.05	0.17	Accept H ₁

S = Significance for level P < 0.05; NS = No significance for level P > 0.05.

To enhance the depth of this study and generate actionable recommendations for producers and marketers, a cluster analysis was conducted using the K-means algorithm. The primary goal was to identify distinct consumer segments based on their purchasing behaviors and preferences related to sour cream consumption in Kosovo. Eleven variables were selected for the clustering process, including consumption frequency, satisfaction with product quality, perceived importance of product attributes (such as brand, labeling, and origin), and socio-economic factors like the influence of income on purchasing decisions. All variables were standardized to ensure comparability. Based on the clustering outcome, three distinct consumer profiles emerged, as illustrated in Figure 1.

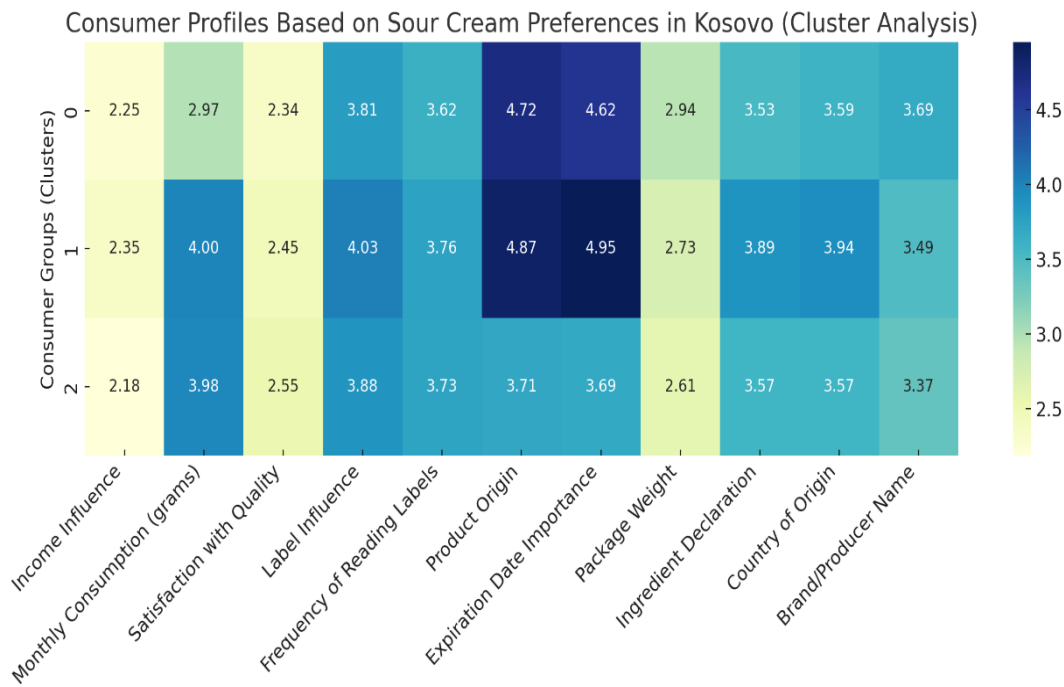


Figure 1: Consumer Profiles Based on Sour Cream Preferences in Kosovo

Based on silhouette score evaluation, the optimal number of clusters was determined to be three. The results revealed three clearly differentiated consumer segments:

Cluster 0 – Practical and Moderate Consumers:

This group demonstrates average levels of sour cream consumption and a pragmatic approach to buying decisions. Although they do not frequently read labels, they acknowledge their usefulness to a certain extent.

These consumers report moderate satisfaction with product quality and are relatively uninfluenced by brand identity or packaging design. Their purchasing decisions are largely guided by routine and convenience rather than detailed product evaluation. Promotional offers and product availability in common retail locations may be more effective than branding efforts for this segment.

Cluster 1 – Conscious and Analytical Consumers:

This segment consists of the most informed and quality-driven consumers. They report the highest frequency of sour cream consumption and show strong interest in detailed product information, including ingredient lists, expiration dates, product origin, and labels. Quality perception is a key driver for their purchasing decisions, and they are highly engaged with packaging content. Marketing strategies targeting this group should prioritize transparency, comprehensive labeling, locally sourced ingredients, and quality certification. Visual cues that convey trustworthiness and nutritional value are likely to be especially persuasive.

Cluster 2 – Traditional and Experience-Oriented Consumers:

While this group's consumption level is similar to that of Cluster 1, their trust in labeling and origin-related details is lower. Their decisions are influenced more by sensory experience and tradition than by technical product information. Though they value familiar brands and ingredient declarations, they place less emphasis on expiration dates or detailed label design. For this segment, producers may find success by emphasizing traditional recipes, flavor, and family appeal. Packaging strategies may benefit from incorporating cultural or regional motifs that evoke tradition and authenticity.

The heatmap illustrating the average responses of each cluster underscores the notable contrasts in consumer priorities. Cluster 1 consistently exhibited higher engagement with evaluative product attributes such as label reading and quality perception. Cluster 0 showed moderate concern across most attributes, while Cluster 2 was more selective—emphasizing some features but disregarding others such as origin or detailed labeling. These findings suggest that a uniform marketing strategy would be ineffective for the diverse consumer base within Kosovo's sour cream market. Instead, differentiated marketing approaches tailored to each consumer profile are recommended. Policy interventions could also be refined to encourage clearer and more informative labeling practices, particularly to meet the needs of the analytical consumer group. Overall, this cluster analysis offers valuable insight into the heterogeneity of consumer preferences in Kosovo and reinforces the importance of targeted strategies in both marketing and policy-making. By understanding the behavioral patterns of different consumer groups, local producers can better position themselves within both the formal and informal segments of the dairy market.

The cross-tabulation analysis between consumer clusters and demographic variables revealed meaningful distinctions. Cluster 0 (Practical and Moderate Consumers) had a relatively balanced gender composition, with most respondents aged between 26–45 years and belonging to families of four to six members. Cluster 1 (Conscious and Analytical Consumers) was predominantly male and consisted mainly of younger adults (26–35 years), with medium household incomes. This group showed the highest engagement with product labels and quality indicators. Cluster 2 (Traditional and Experience-Oriented Consumers) skewed older and male-dominated, with sour cream consumption habits rooted in tradition rather than technical product features. These findings suggest that gender, age, income, and household structure are useful in characterizing market segments and can guide targeted marketing and product design.

The dairy sector remains one of the most promising sectors for economic development in Kosovo (Ibishi et al., 2022). Although continuous investments are being made in the dairy sector, there are still many problems to be solved. Some of the problems faced by this sector are: farm structure, fragmented farm land holdings, and low production efficiency (Bajrami, 2016). The Kosovo economy continues to suffer from high trade deficits across all sectors. When it comes to the trade balance, the dairy sector is not better either. In 2015, the imported dairy products reached the value of 36,632,333 euros, while the exported products were only 458,955 euros. Thus, export covers import by only 1.25 percent (MAFRD, 2020). Kosovars are increasingly preferring milk and its products, whether local products or imported products. The purpose of this study is to identify the major factors that influence consumers to purchase sour cream. Derived from the study which has been conducted and the results findings above, are summarized below.

In purchase of sour cream, age plays a significant role (the age group that mostly buys sour cream is 26 - 35 years old with approximately 38.6% of respondents). Sour cream purchases are also affected by economic income. Consumers who buy more sour cream (about 52.4%) have a monthly income between 251 and 500 euros. Number of family members is a statistically significant factor in purchasing sour cream. The study found that the more family members in the household, the less often sour cream is purchased. According to the results of the study, two socio-demographic variables studied did not have any effect on the frequency of sour cream purchases, gender (P-value = 0.43), and educational level (P-value = 0.11). In this study, it is shown that consumers prefer sour cream as a dairy by-product. The results of this study (Table 2), show that the characteristics of sour cream such as the origin of the product, brand, quality, and packaging are very important factors that influence the purchase of sour cream by consumers. Price as a factor has not been shown to influence consumers' decisions regarding sour cream purchases (P-value = 0.785). The heatmap visualization further emphasized differences across these clusters, with Cluster 1 demonstrating high engagement with product information, Cluster 0 reflecting moderate attention to attributes, and Cluster 2 showing selective preference based on experience and taste. A cross-tabulation between cluster membership and demographic variables added further context. Cluster 1 comprised younger, middle-income males; Cluster 2 skewed older and male-dominant; Cluster 0 reflected a broader demographic profile. These findings reinforce the need for tailored marketing and product strategies.

The findings of this study are consistent with existing literature, which emphasizes the role of demographic and lifestyle factors in dairy consumption (Ates and Ceylan, 2010; Kapaj, 2018). In the context of Kosovo, these results underscore the importance of aligning product development and marketing strategies with consumer values such as authenticity, taste, and trust.

4. Conclusions

This study offers a comprehensive examination of sour cream purchasing behavior in Kosovo, identifying the socio-demographic and product-specific factors that most strongly influence consumer decisions. Age, income, and household size were found to significantly affect purchasing behavior, while gender, education, and price showed no notable impact. Among product attributes, brand, origin, packaging, and particularly quality was decisive.

The cluster analysis contributed valuable segmentation insights, revealing three consumer profiles with distinct behaviors and preferences. These findings have practical implications for dairy producers and marketers, who can tailor their strategies to different consumer segments. For example, informational labeling and certifications

should be emphasized for analytical consumers, while traditional branding and taste-focused messaging may better appeal to experience-oriented buyers.

From a policy standpoint, the results support efforts to improve labeling standards, quality control, and traceability in the dairy sector. Policymakers should consider expanding support for local producers, including training in product presentation and marketing. For future research, further studies could incorporate qualitative methods, such as interviews or focus groups, to explore underlying motivations. Longitudinal studies could track evolving preferences over time, especially in light of income fluctuations or broader market shifts. Moreover, comparative studies across different dairy products or between urban and rural populations could provide additional insights. Finally, assessing consumer willingness to pay for quality certification or origin labeling would enhance the evidence base for policy and market development. By integrating statistical analysis, consumer segmentation, and cross-tabulation of demographic influences, this study contributes to a nuanced understanding of Kosovo's sour cream market and provides actionable insights for stakeholders across the dairy value chain.

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