

ANALYSIS OF CONSUMER BEHAVIOUR IN REGARD TO DAIRY PRODUCTS IN KOSOVO

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ABSTRACT

Consumer behaviour in Kosovo in respect of dairy products (white cheese, yoghurt, fruit yoghurt, Sharri cheese, curd and caciocavalo) was studied during 2007 using different socio-economic variables assessed by so-called evaluation criteria 1-5. The objective of study was to possibly identify effect of different variables on consumer decision upon purchase of dairy products. Dairy products were perceived differently at various types of purchasing places. The most important socio-economic variables explaining individual differences in consumer behaviours regarding purchase of dairy products involved were: trust, gender of consumer, quality, origin, and price of product. Conclusions derived from the analysis can be used as useful barometer for market orientation. The outcomes suggest that assessment of consumer behaviour through evaluation criteria can contribute to a better understanding of consumer behaviour in respect of different dairy products. With specific extension of market indicators the evaluation method used in this study may be relevant to analyze perception of consumer behaviour in regards to dairy chain and other animal products in future, in Kosovo.

KEYWORDS: Milk products; consumer behaviour; quality; prices; Kosovo.

INTRODUCTION

The dairy sector is most favourable sector in Kosovo contributing about 10 percent to total GDP, directly providing employment and improving rural family income. There are a lot of national and international organizations which have supported this sector in Kosovo like Swiss Government, Kosovo Cluster Business Support (KCBS-USAID), Kosovo Association of Milk Producers (KAMP), European Agency for Reconstruction - Marketing Support Project (MSP-EAR), etc. The aim was to develop the dairy sector and using fresh milk as a promoter enabling Kosovo farmers to sell their dairy products at competitive price and improve milk quality.

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After conflict period (1999) in Kosovo, this support assisted commercial producers to improve and stabilize quality of their products in addition to double their number at local market level. They have advanced milk product choices and improved milk quality. However, marketing issue of these products remained as an underestimated factor upto now in Kosovo.

During recent years producers and processors milk associations were established which now-a-days are playing important role in this sector. Effects were constructed on market and marketing research, incorporation of private contractors and suppliers and promoting public and private dialogue. Although there are visible improvements, yet a special emphasize needs to be given to whole milk processors chain as main component in dairy sector e.g. providing awards for best quality products, milk quality management at processing unit, improving fresh milk quality, introducing new and better quality milk products studying factors affecting milk and milk products and consumer(s) behaviour.

Kosovo is situated in South-East part of Europe with about 2 million inhabitants. Total surface is 10.887 km², out of which about 53 percent is arable land. The climate in Kosovo is typically semi-continental, with average annual rainfall of 631 mm and temperature of 11°C, for last 20 years. Currently, rural families in Kosovo count about 7.4 members. The farm size is small and 55 percent farms comprise 1-3 hectares. Milk production in Kosovo is based on cattle, sheep and goat production with their corresponding numbers of about 238.900, 93.300, and 13.400, respectively (1).

Now, the dairy sector could be determined as an industry consisting of two sectors: small farmers aiming to fulfill their own needs and commercial farmers who produce solely for market (4). About two third of total milk and milk products produced in Kosovo is considered to be used for family consumption or sold in "green market", while one third is imported (3). Last year history in Kosovo is characterized with transition process of centralized economy to oriented open and free market approach. Many economies of developing countries do not pay attention and undervalue the consumer behaviours. Kapsdorferova and Nagyova (6) present the consumer as a last component but most important one in food chain.

About consumer behaviours on milk products, different studies (8,9) show existence of significant differences between consumer behaviours in different countries.

Study of consumers' behaviours has multi-plural value like: studying the relation between needs for food products and daily ration taken, especially analyzing different socio-economic group; of high importance, investigation of different effects of marketing (i.e. advertisements, leaflets, etc.) socio-economic characteristics upon consumer decision for milk and milk products supply, etc. (5, 7).

The objective of study was to identify consumer behaviours in regard to dairy products (white cheese, yoghurt, fruit yoghurt, Sharri cheese, curd, and caciocavallo) considering different market variables and secondly to identify effects of different variables on consumer decision to purchase dairy products.

MATERIALS AND METHODS

This survey was carried out by the Department of Livestock and Veterinary Sciences, Agriculture Faculty of Prishtina, Kasovo during 2007. Interviews of 304 respondents were conducted in super-markets (677) and mini-markets (397) and later 23 interviews were completed in green market mainly for Sharri cheese and curd.

All interviews were completed in Prizreni region incorporating three supermarkets, 10 mini-markets and one green market. All consumers buying dairy products during period of survey without any pre-selection criteria were part of study. Number of records of dairy products was: cheese = 40; yoghurt = 815; fruit yoghurt = 202; Sharri cheese = 15; caciocavallo = 17; Curd = 8. The survey was conducted by students of Agriculture Faculty in Prishtina. Structure of consumer's age is presented in Fig. 1.

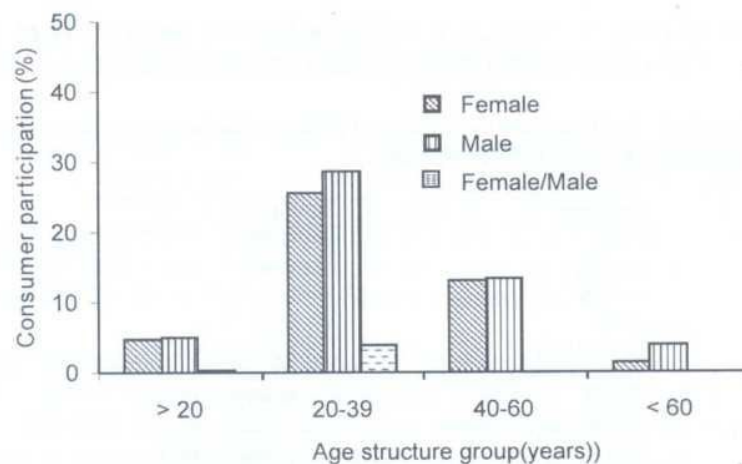


Fig.1. Structure of age according to consumer groups.

The information from interview was collected and inserted directly in questionnaire which contains qualitative and quantitative questions. The questionnaire comprised information according to what consumer was buying and their perceptions towards supply of these products. To assess overall impact questionnaire was also comprised different socio-economic variables like sex of consumer (female, male or both), age of consumer (> 20 years old, 20 - 40 years old, 40 - 60 years old and > 60 years), family size, origin of product (local or imported) and producer name.

To study the reasons for choosing milk products upon supply, a coding approach from 1- 5 was used (1 = very important; 2 = highly important; 3 = average; 4 = less important; 5 = not important). Perception of consumers about dairy products was assessed using different variables i.e. habits, trust, price, quality, package, age of consumer, origin of product, type of shop, brand and gender of consumer.

Due to lack of consumers experience for interviews, poor quality interviews in some cases and incomplete records were removed from final analysis. JMP-starter business unit program of SAS (Institute SAS Inc. 2004) was used to analyse the results. An analysis of variances was performed to assess level of significance for effects of different variables on perception of consumer about milk products. Contingency analyses were used to analyze indicator's perception of consumers about milk products using criteria of importance 1-5.

RESULTS AND DISCUSSION

The results (Table 1) showed a strong effect on perception of consumer behaviours upon purchasing dairy products by socio-economic variables as

Table1. Level of significances for effects of different variables on perception of consumers about milk products.

Indicator	Prob > F
Trust	< 0.0001
Quality	< 0.001
Habits	< 0.0717
Price	< 0.0500
Packaging	< 0.6973 (NS*)
Type of shop	< 0.0939 (NS*)
Brand	< 0.1969 (NS*)
Gender of consumer	< 0.0420
Age of consumer	> 0.1988 (NS*)
Origin of product	< 0.0048

NS = Nosignificance for level P > 0.05.

trust, quality of products ($P < 0.0001$). Significant effects during supply of dairy products were also marked from variables like product origin, price, and gender of consumer i.e. $P < 0.0048$, $P < 0.050$, and $P < 0.0420$, respectively. Although numerical differences were observed while analyzing effect of independent variables like packaging, age of consumer, brand, type of shop, and producer name, yet no significant variation upon purchase of dairy products was noted for these variables.

Dairy products of local origin seem to be more attractive for male consumer's (about 63%) or when both genders (about 85%) purchase dairy products together as compared to the imported one (Fig. 2). Tendency of female consumers to origin of dairy product was observed to be equal.

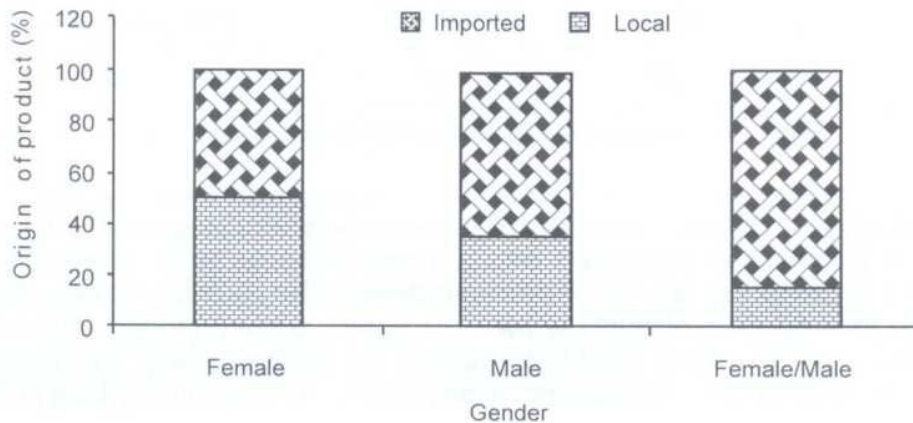


Fig.2 Consumer's behavior according to gender issue and its effect on origin of dairy products (imported or local) purchased

With regards to gender issue (Fig. 3) there are differences in purchased dairy products giving advantages to females for buying more white cheese (66 %), yoghurt (41 %) and fruit yoghurt (62 %) and less other products which mainly are found in green market and are purchased more by male consumers i.e. Sharri cheese and curd. Male consumers tend to purchase more products like yoghurt (56%), curd (50%) and Sharri cheese (53%).

The data (Table 2a) show that most of consumers do not see habit as an important market factor (above 80%) for most of dairy products supply. However, a slight tendency of consumers was observed for buying Sharri cheese considering habits as an important factor among others (6.67% for criteria 1 and 13.33% for criteria 3).

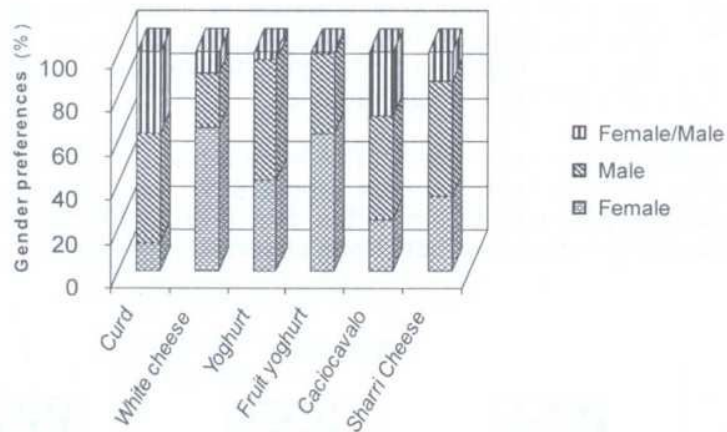


Fig.3 Gender issue in regard to dairy products purchased.

Most of consumers considered market variable a very important factor and put it at consumer perception criteria 1 and 2 (about 89%), showing high effect of product quality on consumers' decision for purchase of dairy food. More than 50 percent attribute their perception to dairy product evaluation criteria 1 to 3, which means consumers do assess quality and express trustiness about different dairy products prior to purchase of dairy food (Table 2b).

The results (Table 2b) about packaging of dairy products and perception of consumers' behaviour are surprisingly indicate that consumers do not see it as important factor and thus consider packaging of products at evaluation criteria 5. Regarding price effect (Table 2e) it was revealed that consumers placed price of dairy product at evaluation criteria 1, 2 and 3. considering price as very important to average in case of white cheese and yoghurt. However, majority of consumers do not consider it as important factor also for other products. Analyses of consumer age effect and their estimation upon purchase of dairy products (Table 2) clearly indicate that majority of dairy products included in this study were purchased by group of consumers between 20 – 39 and 40 – 60 years old, respectively (about 84.60 %), while consumers below 20 years age prefer more to buy yoghurt and fruit yoghurt. Consumers above age 60 years, tend to frequent less market places purchasing only about 5.29 percent of dairy products (Table 3).

Table 2. Effect of different socio-economic variables on on purchase of dairy products.

Dairy product	Consumer perception criteria*					Total
	N (%)	N2 (%)	N3 (%)	N4 (%)	N5 (%)	
(a) consumers behaviour						
White cheese	1 2.56	0 0.00	3 7.70	1 2.56	35 89.74	40 100
Natural yogurt	5 0.61	11 1.35	14 1.72	7 0.86	778 95.46	815 100
Yogurt with fruits	2 0.99	0 0.00	2 0.99	1 0.50	197 97.52	202 100
Sharri cheese	1 6.67	0 0.00	2 13.33	0 0.00	12 80.00	15 100
Caciocavallo	0 0.00	0 0.00	3 17.65	1 5.88	13 76.47	17 100
Curd	0 0.00	0 0.00	0 0.00	0 0.00	8 100.00	8 100
Total	9 0.88	11 1.00	24 2.19	10 0.91	1043 95.08	1097 100
(b) Quality						
	N 1 (%)	N 2 (%)	N 3 (%)	N 4 (%)	N 5 (%)	N ²⁾ (%)
White cheese	28 70.00	10 25.00	0 0.00	0 0.00	2 5.00	40 100
Natural Yogurt	688 84.42	62 7.71	13 1.60	4 0.49	48 5.89	815 100
Yogurt with fruits	105 51.98	40 19.80	13 6.44	3 1.49	41 20.30	202 100
Sharri Cheese	11 73.33	3 20.00	0 0.00	0 0.00	1 6.67	15 100
Caciocavallo	9 52.94	8 47.06	0 0.00	0 0.00	0 0.00	17 100
Curd	8 00.00	0 0.00	0 0.00	0 0.00	0 0.00	8 100
Total	849 77.39	123 11.21	26 2.37	7 0.64	92 8.39	1097 100
(c) Truts						
	N 1 (%)	N 2 (%)	N 3 (%)	N 4 (%)	N 5 (%)	N ²⁾ (%)
White cheese	3 7.50	13 32.50	7 17.50	1 2.50	16 40.00	40 100
Natural Yogurt	94 11.53	207 25.40	91 11.17	5 0.61	418 51.29	815 100
Yogurt with fruits	6 2.97	28 13.86	14 6.93	12 5.94	142 70.30	202 100
Sharri Cheese	1 6.67	10 66.67	0 0.00	0 0.00	4 26.67	15 100
Caciocavallo	0 0.00	6 35.29	4 23.53	0 0.00	7 41.18	17 100
Curd	0 0.00	8 100.00	0 0.00	0 0.00	0 0.00	8 100
Total	104 9.48	272 24.79	116 10.57	18 1.64	587 53.51	1097 100
(d) Packaging						
	N 1 (%)	N 2 (%)	N 3 (%)	N 4 (%)	N 5 (%)	N ²⁾ (%)
White cheese	0 0.00	0 0.00	0 0.00	0 0.00	40 100.00	40 100.00
Natural yogurt	0 0.00	0 0.00	0 0.00	0 0.00	815 100.00	815 100.00
Yogurt with fruits	0 0.00	0 0.00	0 0.00	0 0.00	202 100.00	202 100.00
Sharri cheese	0 0.00	0 0.00	0 0.00	0 0.00	15 100.00	15 100.00
Caciocavallo	0 0.00	0 0.00	0 0.00	0 0.00	17 100.00	17 100.00
Curd	0 0.00	0 0.00	0 0.00	0 0.00	8 100.00	8 100.00
Total	0 0.00	0 0.00	0 0.00	0 0.00	1097 100.00	1097 100.00
(e) Price						
	N 1 (%)	N 2 (%)	N 3 (%)	N 4 (%)	N 5 (%)	N ²⁾ (%)
White cheese	7 17.50	10 25.00	5 12.50	0 0.00	1845 0	40 100.00
Natural yogurt	134 16.44	161 19.75	62 7.61	10 1.23	448 54.97	815 100.00
Yogurt with fruits	5 2.48	18 8.91	29 14.36	5 2.48	145 71.78	202 100.00
Sharri cheese	0 0.00	0 0.00	1 6.67	0 0.00	14 93.33	15 100.00
Caciocavallo	1 5.88	0 0.00	1 5.88	0 0.00	15 88.24	17 100.00
Curd	0 0.00	0 0.00	1 12.50	0 0.00	7 87.50	8 100.00
Total	126 11.49	189 17.23	99 9.02	15 1.37	650 59.25	1097 100.00

¹⁾ Consumer perception criteria expressed using values 1 – 5;

²⁾ Number of answers for each product deriving from 304 interviews

Table 3. Effect of age on consumers' behaviour on purchase of dairy products.

Age	White cheese	Natural Yogurt	Yogurt with fruits	Sharri Cheese	Caciocavalo	Curd	Total
< 20 year	2 1.80	84 75.68	25 2.52	0 0.00	0 0.00	0 0.00	111 100.00
20 - 39 year	26 4.08	450 70.64	132 20.72	9 1.42	14 2.20	6 0.94	637 100.00
40 - 60 year	10 3.44	231 79.38	42 14.43	3 1.03	3 1.03	2 0.69	291 100.00
> 60 year	2 3.45	50 86.21	3 5.17	3 5.17	0 0.00	0 0.00	58 100.00
Total	40 3.65	815 74.29	202 18.41	15 1.37	17 1.55	8 0.73	1097 100.00

In Kosovo, authentic management of various business entrepreneurs aiming to simply dairy products and consumers behaviour how they evaluate these products, are highly important and are the ending link of a production chain. So more emphasize should be given on these aspects in future (6, 8, 9). Super-markets, mini-markets and green markets are main sources of dairy supply in Kosovo, which are characterized by various differences in terms of quality and quantity of products exposed, product diversification, origin, etc. To attain extensive studies and sound conclusions, our researches should also include elements related to food safety, seasonality of products offered from suppliers, and cover a larger number of regions (including villages) to find out how various suppliers accommodate consumers demand.

The present study points out the sensitivity of consumers' basic criteria i.e. trust, quality, price, etc. with a significant influence ($P < 0.001$) on consumer's perception at purchasing these products. In relation to gender, the effects were evident related to products origin as well as products type ($P < 0.05$). Consumer's priority for purchase of local products is directly associated with lower prices compare to imported one. Even though consumers age group effects on purchase of dairy products appeared to be noted so sensitive ($P > 0.1988$), Numerical changes are obvious (Fig. 3) in favour of age groups over 20 upto 60 years for a larger presence.

There were different criteria considered in this study i.e. gender, age, origin and brand of product, habit, etc. Study on categorization and classification of different consumer groups (conservative consumers, traditional consumers, regional habits of consumers for some products, etc.) may also be a change to our current marketing policy in future in Kosovo. This is not an easy task which must be accomplished for different consumer perception e.g. innovation liking/disliking, education on health, change of consumer behaviours over time, family decision maker, price sensitivity against improved value milk products, loyalty preferences, diversification of dairy products, etc. The systematic use of above mentioned marketing tools

becomes inevitable for maintaining consumer interest about purchase of milk and dairy products. This survey shows also that local dairy companies must put more emphasis on effective marketing policy, adoption of new technologies and knowledge, monitoring of innovations and new introduced products, etc. Food production and processing strategy is continuously changing, so continuation of staff education at all levels (ministerial, processing and managerial company level) is becoming a key factor in fulfilling consumer demand process and developing dairy industry in future in Kosovo.

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