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## CONSUMER MOTIVES AND BARRIERS TOWARDS OLIVE OIL

### SUMMARY

This paper analyses the motives for and barriers to the consumption of olive oil in Montenegro. The structure of respondents' attitudes was analysed using a survey questionnaire with questions focused on consumers' attitudes towards olive oil. The obtained results were statistically processed using descriptive statistics and SPSS software. The results of the survey revealed a correlation between age and frequency of olive oil consumption. Based on the revealed habits and low olive oil consumption, there is a need for additional education on the importance of consumption and its health benefits and nutritional value. To improve the consumption of domestic olive oil, respondents emphasised the need for more affordable prices and better marketing.

**Keywords:** Motives, Barriers, Consumer, Olive oil, SPSS

### INTRODUCTION

Based on numerous research activities, olive oil and extra-virgin olive oil (EVO) have proven to be an indispensable element in the Mediterranean diet and olives are among the leading crops in this and the broader region. The focus of research of numerous scientists was income and cultivated area (Pupo D'Andrea, 2007; Marchini et al. 2010; Teresa Del Giudice et al, 2015). For the purposes of this work, literature concerning consumer behaviour was analysed depending on their attitudes towards the particular characteristics of olive oil consumption. The period from 2001 to December 2019 was selected. Numerous databases were used, including: Thomson Reuters (ISI) Web of Knowledge; Scopus et al. Methodological approach was used to select the papers predominantly analysing consumer preferences, motives and barriers. Particular emphasis was laid on the effect of the various attributes for the preferred product (Jiménez-Guerrero et al. 2012; Mtimet et al. 2008, 2011, 2013; Di Vita et al. 2013; Sillani et al. 2014).

The attributes analysed for the needs of this paper included analysis of the papers addressing the Geographical origin (Del Giudice and D'Elia 2001, S.Dekhili et al. 2005, 2011; Cicia et al. 2012; Aprile et al. 2012; Piccolo et al. 2013; Panico et al. 2015, Moric et al. 2017), Brand (Baourakis and Baltas 2003; Cicia et al. 2005; Bracco et al. 2009; Dekhili and d'Hauteville 2009;

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Gázquez-Abad and Sánchez-Pérez 2009; Joel Espejel et al. 2009; Jiménez-Guerrero et al. 2012) and Price (Lazaridis 2004; Mtimet et al. 2014, Gázquez-Abad and Sánchez-Pérez 2009, Carlucci et al. 2014, Cicia et al. 2002; Martínez et al. 2002; Scarpa and Del Giudice 2004, Cicia and Perla 2000).

### **MATERIAL AND METHODS**

For the purpose of this paper, the survey was conducted in the following municipalities: Podgorica, Danilovgrad, Bar, Ulcinj, Budva, Kotor, Herceg Novi, Tivat. The questionnaire was divided into two parts: the first part consists of a set of questions concerning the descriptive statistics for sociodemographic indicators, while the second part includes questions concerning the economic aspect of consumers to olive oil products.

The poll was conducted in late December 2018. It was carried out by trained survey takers. The survey included students - respondents above 18 years of age. On a sample  $N=129$  respondents, metric properties of the scale were assessed. The scale reliability is high. Results obtained were analysed and statistically processed using the descriptive statistics methods and SPSS program.

### **RESULTS AND DISCUSSION**

The obtained results of the survey concerning the sociodemographic indicators, household incomes and so on show as statistically significant a group of respondents of 45.4% who consume olive oil daily and once a month. The dominant participation of the respondents is with high school and three household members, whose monthly income ranged from €401 to €600. (table 1).

As the main reason for non-consumption of olive oil, apart from the high price the taste, smell, lack of habit or achieved saturation level were particularly highlighted. Quality and price are the most important factors in the process of making a decision on buying olive oil. Almost 2/3 respondents pay particular attention to the brand, while the most frequently bought packaging was 0.75l. Approximately 40% of respondents consider marketing communication to be important and partly important, while 2/3 prefer extra virgin olive oil and virgin olive oil (table 2).

In the buying process, the most significant sales channels are supermarket (38.4%) and direct purchase from the manufacturer (30.4%). Home consumption applies to 80% of the total number of respondents. In terms of price levels at the domestic market, more than 60% believe that prices are high and play a significant role in the buying process, but also that the domestic supply of olive oil is satisfactory. Special emphasis was laid on domestic olive oil. The most represented of the foreign countries are Greece and Spain. Quality is one of the main reasons for buying foreign oil.

Respondents agree with the assertion in most cases, and also, on average, they provided similar answers. Analysis of the results obtained implies also the examination of the correlation between certain questions.

Table 1. Descriptive statistics for sociodemographic indicators, education level, household income

Sex of olive oil purchaser, n (%)	
Male	66 (51.2)
Female	63 (48.8)
Age of main olive oil purchaser (years), mean (SD), median	46 (1.341) 2.83
Education level of main olive oil purchaser, n (%)	
Bachelor degree or higher	24 (18.6)
Diploma	31 (24.0)
Vocational	69 (53.5)
No post-school qualification	6 (3.9)
Household places, n (%)	
Rural	84 (65.1)
Urban	22 (17.1)
Peri urban	23 (17.8)
Number of household members	
1	5 (3.9)
2	10 (7.8)
3	43 (33.3)
4	34 (26.4)
5	27 (20.9)
More than 5	10 (7.8)
Household income (EUR €), n (%)	
to 200 eur	14 (11.0)
From 201 to 400 eur	33 (26.0)
From 401 to 600 eur	42 (33.1)
From 601 to 800 eur	25 (19.7)
From 800 to 1000 eur	5 (3.9)
More than 1000 eur	8 (6.3)
How often do you consume olive oil?	
Daily	34 (26.6)
Once a month	24 (18.8)
2-3 times a week	31 (24.2)
1-3 times a month	21 (16.4)
I don't consume olive	18 (14.1)

SD – standard deviation.

Table 2. Descriptive statistics for economic aspect of consumers to olive oil products.

<p>Why not consume olive oil?  a ) High price 12 (19.4)  b) Health reasons 9 (14.5)  c) Other 41 (66.1)</p> <p>Which factor has a dominant influence when buying olive oil?  a) Quality 70 (56.0)  b) Brand 8 (6.4)  c) Price 24 (19.2)  d) Packaging 7 (5.6)  e) Pack size 1 (0.8)  f) Producer 12 (9.5)  g) Other factors 3 (2.4)</p> <p>Is Brand Important When Buying Olive Oil?  a) extremely important (31) 24.6  b) very important (17) 13.5  c) moderately important (37) 29.4  d) neutral (20) 15.9  e) slightly important (1) 0.8  f) a little important (8) 6.3  g) is not important at all. (12) 9.5</p> <p>What size of pack of olives do you use most often?  a) 0.20 l (31) 24.6  b) 0.50 (17) 13.5  c) 0.75 l (37) 29.4  d) 1.00 l (20) 15.9  e) 2.00 l (1) 0.8  f) other (8) 6.3</p> <p>Does economic propaganda have an impact?  a) Yes (31) 24.6  b) Mostly (17) 13.5  c) No (37) 29.4</p> <p>What types of olive oil do you prefer?  a) Extra virgin (38) 30.0  b) Virgin (46) 37.4  c) Malsin oil lamps (12) 9.8  d) Refined olive oil (23) 18.7  e) Refined mixed with virgin (2) 1.6  f) Olive oil (2) 1.6</p>	<p>Where do you usually buy olive oil?  a) hypermarket 31 (24.8)  b) supermarket 48 (38.4)  c) directly from the manufacturer 38 (30.4)  d) other, where? 8 (6.4)</p> <p>Where do you usually consume olive oil?  a) Restaurant 15 (12.0)  b) the house 109 (87.2)  c) other, where? 1 (0.8)</p> <p>Do you think that the price of olive oil in the domestic market is high?  a) I totally agree 19 (15.0)  b) I agree 58 (45.7)  c) I have no opinion 35 (27.6)  d) I disagree 11 (8.7)  e) I disagree at all 4 (3.1)</p> <p>Does the level of retail prices play a role in buying olive oil?  a) has no role 18 (14.3)  b) has a role 78 (61.9)  c) I don't know 30 (23.8)</p> <p>Is the domestic market supply of olive oil satisfactory?  a) Very satisfactory 30 (23.6)  b) Satisfactory 48 (37.8)  c) I'm not sure 42 (33.1)  d) Unsatisfactory 6 (4.7)  e) Very unsatisfactory 1 (0.8)</p> <p>Which olive oil do you prefer?  a) domestic 76 (61.8)  b) foreign 22 (17.9)  c) equally 25 (20.3)</p>
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Table 3. Correlations between 2 and 8.

		Q2	Q8
Q2	Pearson Correlation	1	-.289**
	Sig. (2-tailed)		0.001
	Sum of Squares and Cross-products	230.248	-68.289
	Covariance	1.799	-0.538
	N	129	128
Q8	Pearson Correlation	-.289**	1
	Sig. (2-tailed)	0.001	
	Sum of Squares and Cross-products	-68.289	243.430
	Covariance	-0.538	1.917
	N	128	128

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4. Correlations between 4 and 8.

		Q4	Q8
Q4	Pearson Correlation	1	-0.093
	Sig. (2-tailed)		0.294
	Sum of Squares and Cross-products	89.550	-13.766
	Covariance	0.700	-0.108
	N	129	128
Q8	Pearson Correlation	-0.093	1
	Sig. (2-tailed)	0.294	
	Sum of Squares and Cross-products	-13.766	243.430
	Covariance	-0.108	1.917
	N	128	128

In difference to the examination of the correlation between a larger number of questions, for example, questions No.4 and 8 or 7 and 8, a significant correlation was not established, while between questions 2 (Age of main olive oil purchaser) and 8 (How often do you consume olive oil?), the correlation was confirmed and was .289\*\* (Table 3-5)

Table 5. Correlations between 7 and 8.

		Q_7	Q_8
Q7	Pearson Correlation	1	-0.027
	Sig. (2-tailed)		0.763
	Sum of Squares and Cross-products	205.969	-6.000
	Covariance	1.635	-0.048
	N	127	126
Q8	Pearson Correlation	-0.027	1
	Sig. (2-tailed)	0.763	
	Sum of Squares and Cross-products	-6.000	243.430
	Covariance	-0.048	1.917
	N	126	128

## CONCLUSIONS

The analysis made and assessment of the motives and barriers to olive oil consumption using the SPSS software has not been used previously in the area analysed. The paper aimed to use this analysis to consider the main motives and attitudes of consumers from the socio-economic aspect.

The results obtained, as well as the analyses of organic and other products in Montenegro, showed positive consumer attitudes towards quality (56%) and price (19.2%) (Jovanovic et al., 2004, 2012, 2016, 2017).

When it comes to the brand, the responded stated that it was moderately (24.6%), or extremely important (29.4%) Baourakis and Baltas 2003; Cicia et al. 2005; Bracco et al. 2009; Dekhili and d'Hauteville 2009; Gázquez-Abad and Sánchez-Pérez 2009; Joel Espejel et al. 2009; Jiménez-Guerrero et al. 2012). With regard to packaging, sizes of 0.75 l (29.4%) and 0.2 l (24.6%) prevail. The opinions of the respondents about whether marketing communication has a significant impact on buying olive oil were divided- 35.4% of respondents found that it did not have an impact, while 34.6% considered it to have an impact.

The most favoured olive oils are extra virgin (30.9%) and virgin (37.4%) (Pupo D'Andrea, 2007; Marchini et al. 2010; Teresa Del Giudice et al, 2015). Supermarket (38.4%) and direct purchase from the manufacturer (30.4%) are the dominant sale channels for olive oil.

In most cases, the respondents consumed olive oil at home (87.2%) or in the restaurant (12%).

When asked whether the olive oil price at the domestic market was high, 45.7% agreed with the assertion, while 3.1% completely disagreed. With regard to the supply of olive oil at the domestic market, 37.8% of respondents found it satisfactory, while 33.1% stated they were not sure. Domestic olive oil and quality is preferred by 61.8% of respondents (Lazaridis 2004; Mtimet et al. 2014, Gázquez-Abad and Sánchez-Pérez 2009, Carlucci et al. 2014, Cicia et al.2002;

Martínez et al. 2002; Scarpa and Del Giudice 2004, Cicia and Perla 2000). Spanish and Italian oils (Arbeguino and Monini) prevail in the consumption of imported oils. Also further studies are needed to gather wider and deeper evidence of the effect of different technologies on odour and to calculate the economics of the use these technologies.

## REFERENCES

- Aprile MC, Caputo V, Nayga RM Jr (2012) Consumers' valuation of food quality labels: the case of the European geographic indication and organic farming labels. *Int J Consum Stud* 36(2):158–165
- Baourakis, G. & Baltas, G. *Oper Res Int J* (2003) 3: 165. <https://doi.org/10.1007/BF02940284>
- Bracco C, Caniglia E, D'Amico M, Di Vita G, Pappalardo G (2009) Analisi del consumo e percezione della qualità dell'olio extravergine d'oliva biologico in Italia. In: *Agricoltura Biologica: sistemi produttivi e modelli di commercializzazione e consumo* Palermo: Università degli Studi di Palermo, Dipartimento di Economia dei Sistemi Agro Forestali
- Carlucci D, De Gennaro B, Roselli L, Seccia A (2014) E-commerce retail of extra virgin olive oil: an hedonic analysis of Italian SMEs supply. *Br Food J* 116(10):1600–1617
- Cicia G, Perla C (2000) La percezione della qualità nei consumatori di prodotti biologici: uno studio sull'olio extra-vergine di oliva tramite conjoint analysis. *Qualità e valorizzazione nel mercato dei prodotti agroalimentari tipici*, Edizioni Scientifiche Italiane, Napoli, pp 237–252
- Del Giudice, T., Cavallo, C., Caracciolo, F. et al. What attributes of extra virgin olive oil are really important for consumers: a meta-analysis of consumers' stated preferences. *Agric Econ* 3, 20 (2015). <https://doi.org/10.1186/s40100-015-0034-5>
- Di Vita G, D'Amico M, La Via G, Caniglia E (2013) Quality perception of PDO extra-virgin olive oil: which attributes most influence Italian consumer. *Agric Econ Rev* 14(2):46–58
- Di Vita, Giuseppe ; D'Amico, Mario ; La Via, Giovanni ; Caniglia, Elena, 2004. Quality Perception of PDO extra-virgin Olive Oil: Which attributes most influence Italian consumers? *Agricultural Economics Review*, 14, 2 Page range: 46-58, Total Pages: 13, 10.22004/ag.econ.253544
- Dekhili S, d'Hauteville F (2009) Effect of the region of origin on the perceived quality of olive oil: an experimental approach using a control group. *Food Qual Preference* 20(7):525–532
- Dekhili S, Sirieix L, Cohen E (2011) How consumers choose olive oil: the importance of origin cues. *Food Qual Preference* 22(8):757–762 <https://doi.org/10.1016/j.foodqual.2011.06.005>
- Imami, Drini ; Zhllima, Edvin ; Canavari, Maurizio ; Merkaj, Elvina, 2014. Segmenting Albanian consumers according to olive oil quality perception and purchasing habits, *Agricultural Economics Review*, 14, 1, 10.22004/ag.econ.253540
- Jiménez-Guerrero JF, Gázquez-Abad JC, Mondéjar-Jiménez JA and Huertas-García R (2012). Consumer Preferences for Olive-Oil Attributes: A Review of the Empirical Literature Using a Conjoint Approach, *Olive Oil - Constituents, Quality, Health*

- Properties and Bioconversions, Dr. Dimitrios Boskou (Ed.), ISBN: 978-953-307-921-9,
- Jovanović, M., 2004: Food Market from the tourism consumption aspect. *Agriculture & Forestry*, vol. 50. Issue 1-2: 127-137, Podgorica, UDK:339.133
- Jovanovic, M., 2016: Empirical analysis of income changes impact on food consumption expenditure. *Agriculture and Forestry*, 62 (3): 49-56. DOI:10.17707/AgricultForest.62.3.04
- Jovanović., M, Despotović, A., 2012: The analysis of socioeconomic conditions for organic production in Montenegro, *Economics of Agriculture 2/2012*, UDC: 631.147:339.13(497.16), EP 2012 (59) 2 (207-216).
- Jovanović M., Joksimović M., Kaščelan Lj., Despotović A., 2017, Consumer attitudes to organic foods: Evidence from Montenegrin market, *Agriculture and Forestry*, 63 (1): 223-234. DOI: 10.17707/AgricultForest.63.1.26
- Joel Espejel, Carmina Fandos & Carlos Flavián (2008) The Influence of Consumer Degree of Knowledge on Consumer Behavior: The Case of Spanish Olive Oil, *Journal of Food Products Marketing*, 15:1, 15-37, DOI:10.1080/10454440802470565
- Lazaridis P (2004) Olive oil consumption in Greece: a microeconomic analysis. *J Fam Econ Issues* 25(3):411–430
- Martínez MG, Aragonés Z, Poole N (2002) A repositioning strategy for olive oil in the UK market. *Agribusiness* 18(2):163–180
- Mtimet N, Ujiie K, Kashiwagi K, Zaibet L, Nagaki M (2011) The effects of Information and Country of Origin on Japanese Olive Oil Consumer Selection. In: 2011 International Congress, August 30-September 2, 2011. European Association of Agricultural Economists, Zurich, Switzerland
- Marchini A, Diotallevi F, Fioriti L, Pampanini R (2010) A quantitative analysis of olive oil market in the North-West Italy. *Enometrics XVII*, Palermo
- Moric I., Alković Ć., Radulović D., Pekić D., Tinaj K., Dragić M., 2017. Život među maslinama, Smjernice za razvoj održivog maslinarstva u Crnoj Gori, Podgorica, mart 2017. Institut za preduzetništvo i ekonomski razvoj (IPER),
- Mtimet N, Kashiwagi AK, Zaibet L, Masakazu N (2008) Exploring Japanese olive oil consumer behavior. In: 12th EAAE Congress 'People, Food and Environments: Global Trends and European Strategies', Gent (Belgium), pp 26–29
- Menapace L, Colson G, Grebitus C, Facendola M (2011) Consumers' preferences for geographical origin labels: evidence from the Canadian olive oil market. In: *European Review of Agricultural Economics*:jbq051
- Nadhem Mtimet, Lokman Zaibet, Chokri Zairi & Hamida Hzami (2013) Marketing Olive Oil Products in the Tunisian Local Market: The Importance of Quality Attributes and Consumers' Behavior, *Journal of International Food & Agribusiness Marketing*, 25:2, 134-145, DOI: 10.1080/08974438.2013.736044
- Paula Tarancón, Teresa Sanz, Susana Fiszman, AmparoTárrega, 2014. Consumers' hedonic expectations and perception of the healthiness of biscuits made with olive oil or sunflower oil, *Food Research International*, Volume 55, Pages 197-206, <https://doi.org/10.1016/j.foodres.2013.11.011>
- Piccolo D, Capecchi S, Iannario M, Corduas M (2013) Modelling consumer preferences for extra virgin olive oil: the italian case. In: *Politica Agricola Internazionale/International Agricultural Policy.*, p 25



- Pupo D'Andrea MR (2007) Il mercato mondiale dell'olio d'oliva: attori, dinamiche, prospettive e bisogni di ricerca. In: *AgriRegioniEuropa* 10
- Panico, Teresa; Del Giudice, Teresa; Caracciolo, Francesco Quality dimensions and consumer preferences: A choice experiment in the Italian extra-virgin olive oil market *Agricultural Economics Review* 15, 2 Page range: 100-112 Total Pages: 130
- Sillani S, Esposito A, Del Giudice T, Caracciolo F (2014) Le preferenze dei consumatori della provincia di Trieste per l'olio extra vergine di oliva d'alta gamma. *Economia Agro-alimentare* 1:139–155
- Scarpa R, Del Giudice T (2004) Market segmentation via mixed logit: extra-virgin olive oil in urban Italy. *J Agric Food Ind Organ* 2:1
- Shiksha Kushwaha AmandeepDhirbc MahimSagara Bhumika Guptad, Consumer behavior Motives Organic food And systematic literature review Determinants of organic food consumption. A systematic literature review on motives and barriers, *Appetite* Volume 143, 1 December 2019, 104402, <https://doi.org/10.1016/j.appet.2019.104402>
- S.Dekhilia L.Sirieixb E.Cohencd How consumers choose olive oil: The importance of origin cues *Food Quality and Preference*, Volume 22, Issue 8, December 2011, Pages 757-762, <https://doi.org/10.1016/j.foodqual.2011.06.005>
- Vlontzos G, Duquenne MN (2014) Assess the impact of subjective norms of consumers' behaviour in the Greek olive oil market. *J Retailing Consum Serv* 21(2):148–157
- Yangui A, Costa-Font M, Gil JM (2014b) Revealing additional preference heterogeneity with an extended random parameter logit model: the case of extra virgin olive oil. *Spanish J Agric Res* 12(3):553–567