International Branding and Product Distribution of Croatian Extra Virgin Olive Oil

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ABSTRACT;

The literature review showed that olive oil has been part of the Mediterranean civilization since before recorded history.

The olive grove has traditionally been a Mediterranean crop whose production of olives has been dedicated, for the most part, to the production of olive oil, a basic product of the Mediterranean diet. The major European producers are Spain, Italy, and Greece. The purpose of this study was to determine how to build up the awareness of Croatian olive oil in the US market and the general awareness of olive oil in the American market. A survey was used to collect data online from 113 American participants.

The results of the study indicated that majority of participant are consumers of olive oil and have uncertainty toward the health benefits of olive oil. Regarding the general aspect of olive oil consumption, participants are mostly influence by doctors, family members and closest friends when choosing to purchase olive oil. However, American participants were separated in half by the awareness of Croatian as olive oil producer and majority is willing to purchase Croatian olive oil.

KEY WORDS: Olive Oil, Awareness, USA, Croatia, International Branding, Importing
INTRODUCTION;

“The olive tree, Olea Europaea, valued for both its beauty and its fruit, has been a part of Mediterranean civilization since before recorded history” (Joseph H. Connell, Oil Famous Quotes). The quote represents a deeper meaning of the Mediterranean fruit that had its origin some 20-40 million years ago according to the fossil evidence in the Oligocene region, by this time, in the area of Carpathian basin (1.Therios, Ioannis Nikolaos (2009)). The olive grove has traditionally been a Mediterranean crop whose production of olives has been dedicated, for the most part, to the production of olive oil, a basic product of the Mediterranean diet.

Harvesting and Production Process

The most significant thing to do in the olive oil process is when to start harvesting? This factor can have a significant effect on the quality and taste of olive oil. From the second week of October to the end of November season is the harvest of olives, but the choice of the appropriate moment is determined by many circumstances. The first is that oil has to accumulate in the fruit it-self. The sign of this gives us a change in the color of the fruit: from the top to the petals the green slowly turns to the yellow-reddish. It is important to hit the right moment because, according to calculations, up to 30% of oil quality depends on choosing the right time for harvesting (Kako se Beru Maline, 2016)

The harvesting start with collecting or ripping the olives from the trees. In the harvest, the olives must be taken carefully to ensure that the fruits are not damaged because the damaged fruits quickly become naughty and provide a lower quality oil.
Today olive oils are processed in two ways: pressing and centrifuging.

- **Pressing** - The traditional olive-milling process consists of a stone mill, a mixer with an automatic dosing device, a press and a centrifugal separator. This method makes it possible to produce natural composition oils since the pulp preparation and the oil excretion are performed by a "cold" process.

- **Centrifugation** - The centrifugal process allows the production of natural composition oils with a higher content of antioxidants and the corresponding organoleptic qualities. The centrifugal line for continuous olive processing consists of several machines connected to a single unit. The oil, therefore, obtained a better quality and more stable compared to oxidation processes. (How Olive Oil is processed, 2016)

**Categories of Olive Oil**

In the olive oil market, there are several types of olive oils that are divided according to the quality;

1. *Extra Virgin Olive Oil*—is obtained after the first squeezing of healthy fruit and the acidity (free fatty acids) shouldn't exceed 0.8 percent. In addition to satisfying the chemical parameters, the oil must still undergo organoleptic testing and must not have any fragrance that is not characteristic of the oil.

2. *Virgin oil*—is obtained after the first squeeze of the extracted olive, and its acidity with respect to extra virgin olive oil is slightly higher, however, the content of fatty acids does not exceed 2 percent.

3. *Olive oil*—is obtained by mixing refined oil and a certain amount of extra virgin olive oil to improve color and taste. The acidity of this oil is about 5 percent.
4. Sansa oil—is obtained by chemical separation from the solid residues of the olive oil after squeezing. The oil, therefore, is produced of inferior quality but can be used for frying. (Ergönül, P. G. and Sánchez, S. 2013)

Olive Oil Producers

The main producer of olive oil in the world is the European Union (EU), which produces 70%, consumes 56%, and exported 66% of the world’s total olive oil production (European Commission, 2016). The major European producers are Spain, Italy, and Greece. Spain, Tunisia, and Greece because of their large production and the inexpensive production cost can influence the prices of olive oil in the World (Sabbatini V., 2014).

In the olive oil business, there are other non-European producing countries that are located outside of the European Union and facing the Mediterranean climate. There is Tunisia, Turkey, Syria, and Morocco (International Olive Council, 2015).

Health Benefits of Consuming Olive Oil

Today most of the consumers are using olive oil because of its health benefits. One of the main reasons why it is beneficial for health is Vitamin E. Vitamin E works as the antioxidant in olive oil that limits the production of free radicals in the body. In that way, it helps the organism to prevent some chronic disease (Medeiros and Hampton, 2007). In the researcher study conducted by (Buckland, Genevieve, and Carlos A. Gonzalez, 2018) they were reviewing the role of high quality olive oil (extra virgin/virgin olive oil in the diseases prevention. From their review, they found epidemiological evidence that state that olive oil consumption has a key role in the increase of longevity, reducing of certain cancers, influence health outcomes such as type 2 diabetes mellitus, MetS, and obesity.
The study conducted examinations and observation of mortality rates and lower CHD (Coronary Health Disease) in the Mediterranean countries compared with the USA or other European countries. The study stated that regular olive oil consumption consumers in Mediterranean country can have a significant 8% decreased the risk of dying.

Other research studies from the epidemiological researchers suggest that olive oil consumption might reduce or cure certain cancers. Studies from the meta-analysis source of nineteen case-control (13 800 patients and 23 340 controls) in the highest compared with the lowest category of olive oil consumption were 34 (95% CI 25, 41) % less likely to have any type of cancer. (Buckland, Genevieve, and Carlos A. Gonzalez, 2018)

*Croatian Olive Oil*

In Croatia from 2010 to 2014, the average annual production of olive oil was 4.15 thousand tons, while the average annual consumption was 1.42 kilogram or 1.6 litter per capita. In 2014, a total of 3.5 thousand tons of olive oil worth USD 12.66 million were imported into Croatia and 213 tons worth USD 1.43 million were exported. In the same year, we imported the largest quantities of olive oil from Italy, Spain, and Belgium, while we mostly exported to Bosnia and Herzegovina, Slovenia and Serbia. In the analyzed period, domestic olive oil production meets about 70% of domestic needs (IOOC, 2015).

The competitiveness of the Croatian olive oil market can be increased by growing olive-planted areas, by stimulating the consolidation and technological modernization of production, by greater control over oil production and distribution, and by encouraging cooperation and integration of all stakeholders in the supply chain of olive oil.
Croatia, as a Mediterranean country with a favorable climate, has a long tradition of success growing of olive and olive oil. According to Ožanić (1955), colonization of the eastern Adriatic coast with the islands of Korcula, Hvar, and Mljet in the 4th century AD Cr. there was an olive growing in our area. Olive is the most abundant agricultural culture in the Adriatic region of Croatia where Dalmatia participates dominate with more than 3/4 of the total number of olive trees in the country.

Over the last twenty years, the olive growing sector has recorded a continuous increase in production areas and a rise in production. The result is greater investment in agriculture, incentives at the local, regional and national level, the introduction of new technologies in production, increased demand for olive oil, and popularization of the knowledge about the value of olive oil. Despite the positive trend in olive oil production, domestic olive oil production only accounts for 70% of domestic demand.

The main limiting factors for the development of the Croatian olive and olive oil market are chopped and small areas under olive plantations, insufficient storage capacities, inefficient distribution resulting from weak links between all stakeholders in supply chains of olive oil, gray market, import of cheaper oil, a small investment in olive oil marketing activities.

*Olive Oil Penetration in USA Market*

According to the article (Radinovsky, 2017) that is conducted with Alexandra Kicenik Devarenne, American olive oil expert, Mrs. Devarenne speaks about the influence of greek olive oil in the USA market. She is suggesting that "Greek olive oil hasn’t made the mark it deserves in the US market" because it is failing its mission to impact the US customers.
The Americans consumers, still don't value enough the quality of the greek olive oil and they are barely aware of it. Americans are mostly aware of Italian olive oil and their brands.

Mrs. Devarenne addresses that Greek olive oil is the brand that is only sold in the Greek community market and in some supermarkets depend on the region. Mrs. Devarane states that entering with the olive oil in the USA market can be quite difficult and expensive especially for small companies that don't have any contact in the USA. On the other hand, the ones that do have some connections or representatives of their brand, depending on the company size, the producer can find a “limited but cozy market in the US.”

Mrs. Devarenne believes a "small Greek producer needs a relentless and well executed direct to consumer campaign to break in somewhere in the United States." She suggests that producer should investigate and do some research when choosing the place/market in which they will place their product. The way of collecting data and understand the market in location is to go to the stores and do some research by checking the shelves, do some tasting, price comparison, see which olive oil restaurant consume.

Mrs. Devarenne doesn't recommend American supermarkets because of polices, fees, middlemen distributors, that can impact the price and the marks-up. In order to succeed in the penetration of the product, producer should be creative and create a way to get direct to the consumers. Mrs. Devarenne emphasizes “that restaurants are really important places. “If you can find a chef that loves your olive oil and get them to use your olive oil on the menu,” that would be wonderful. “Chefs are incredibly important as olive oil ambassadors".
Customer Purchase Behavior

According to the study (Roselli, L., Carlucci, D. and De Gennaro, B. C. (2016)), that was conducted on the price function of olive oil based on the size of a container, product category, organic certification, geographical indications, country of origin and brand sold in the U.S. e-commerce retail market, result show that all this data has a high impact on the price of olive oil. More specifically, the study was examined different olive oil brand and their prices started from minimum 4.6$/Liter to maximum 160$/Liter and the size of the container.

Despite the brand characteristic being equal data collected show that olive oils in containers of 0.5 L or less are sold at almost double the price of olive oils in containers over 1 L. That suggests that consumers perceive containers size as an important indicator of olive oil quality and are willing to spend more on the small containers than on the general size.

Media Channels for Promotions

According to the study on the promotion of the consumption of olive oil and table olives in Russia (Ageron Internacional, 2009) has analyzed the Russian market and acquire better media knowledge to understand what are the most influential channel for promoting olive oil. The study was conducted on following olive oil consumers;

• Women, between 20 and 55 years old, medium and high incomes, urban dwelling.

• Professionals: Men, between 25 and 55 years old, trade and HoReCa employees.
The study selected Spanish olive oil as the world's bigger exporter of olive oil. The study was conducted on dozens of olive oil brands. The data tools of the study are following;

*PR EVENTS* - (Campaign launch event, For Press, Importers & Distributors Spanish chef in an Italian restaurant (Cipollino, Moscow).

*PR PRESS* - (Press Trip in Spain (4 pax), Report about Olive Oil & Table Olives, Program in Domashny TV.

*SPECIALIZED PRESS* - (Sponsorship of Spanish cuisine Book Edited by Gastronom magazine (256 pages) Focus on Consumers 15,000 copies (free in events & for editorial sale).

*POS-POSM* (Point of Sales, Point of Sales Marketing)-(Promotion material on 232 points of sale, Shelf banners (2) and Floor stickers (1) in each POS Neck hanger (small booklet) for Olive oil bottles (5,000)

*ADVERTISING* -(Feminine & cooking magazines, Adverts in 9 magazines)

*INTERNET* - (Thematic web page in the Russian language www.oliveoilfromspain.ru, Focus on Consumers & Professionals)

The conclusion of the study was that television campaign was the most profitable and efficient way of promoting Spanish olive oil to the Russian citizens. The second channel was the radio that has a very good coverage on entire Russia but inefficient advertising penetration.

The Press media had a great penetration and the researcher advice to use this channels as a promotion tool, especially specialized theme magazines. They highlight that "Russians generally read a lot and particularly women. It seems that the feminine and gastronomy press is a good support for the products object of this study". The general press didn't get too efficient results, and it was cast aside.
The Outdoor media, billboards and other urban supports are a good support for the public that lives in those cities. Internet, as a commercial information and promotion media, was an acceptable penetration in the large cities, especially in determined younger layers of the population, but it is scarce in more rural areas and among the population with less culture and buying power.

*Customer Knowledge*

The article *Survey Finds Consumers Both Enthused, and Confused* (Olive Oil Times, 2014) made a survey in which stated that half of U.S. olive oil consumer (56%) are confused and unaware of the benefits and important factors when purchasing the olive oil. In the survey conducted on the olive oil consumer, they believe that following statements are true;

1. The color of olive oil is related to its quality (only 6 percent knew this is false);
2. Light-tasting olive oil has fewer calories than other olive oils (only 16 percent knew this is false);
3. Like wine, olive oil gets better with age (only about a quarter knew this is false);
4. Extra virgin olive oil is for cold or raw use only (less than a third knew this is false).

The consumers had also said that quality as a reason to buy particular olive oil have a key element of the choice and its consumption.

“*Unlike health benefits, which may lead a consumer to decide to purchase virgin olive oil instead of another oil, quality (price aside) will dictate which bottle of olive oil the consumer will buy*” (Francucci, 2015).

The aim of this research is to determine the current standing of Croatian Olive Oil in the United States market and how best to introduce Croatian Olive Oil into this market.
METHODOLOGY;

The research survey was individually designed for understanding the perception of olive oil consumers in the USA market. There are various researches conducted on the concept of consumer attitudes on olive oil (Wang, Ph.D.; Moscatello and Flynn, 2013) and on the promotion of consumption of olive oil (International Olive Oil Council, 2009). Few studies have analyzed the awareness and perception of USA citizens toward the olive oil industry and particularly the perception of Croatian olive oil. This study attempts to determine the USA consumer market in general and the way in which consumers decide which olive oil to purchase.

The survey is divided into 5 sections. The first section includes demographic questions and asks participants about their age, gender, home geographic location, and home density location (urban, suburban, and rural area). Following the demographic questions, the second section includes questions about consumption of olive oil, consumers purchase behavior and what are the impact of selecting various olive oil brands and perception of the health benefits of olive oil.

The third section includes questions about communication and information channels that impact customer’s decision, following with question of indication of the best olive oil producing countries like Italy, Greece, Croatia, USA, Spain, and Tunis. The last section provides participants with questions about the awareness of the Croatian olive oil market, opinion of the quality of olive oil and the willingness in purchasing Croatian olive oil.

Survey as an instrument was used and participants needed to indicate their level of degree on a 5 point rating scale.
The scales were designed for multiple questions in where 1 indicated Uncertainly, No Impact, Do Not Trust, Not Interested, and 5 Substantial Benefit, Strong Impact, Substantial Trust, Very Interested. Parts for constructing the survey were adapted from Wang, Ph.D.; Moscatello and Flynn, 2013; Georgiadis, Makrias, Rizos, and Sotiriou 2013; and Kano model from Prof. Kano, 1980. Some of the questions were modified in order to focus on the specific parts of the awareness of USA olive oil consumers.

Procedure and Participants

Surveys were distributed online using Google Forms Survey to 113 participants. The survey was posted online on March 28, 2018, designed for the American respondents and written in English. The questions were not restricted on any basis like gender, age, geographic region. Respondents were introduced to the purpose of the research and were kindly asked for their honest responses and for their anonymous participation. The survey was targeting individual people from 18 years to 75 years old who live in an urban, suburban and rural area in the USA countries.

The survey stated to the participants that their responses would be used solely for this research project. The responses from different target population would give an overview of the popularity of olive oil, the regularity of its consumption, the important factors that determine its attractiveness, the main drivers behind the preference of different countries of olive oil producers and the awareness of the Croatian olive oil.
RESULTS;

The survey was conducted online on 113. Participants in the USA. The majority of participants were female (59.3%) and male (40.7%) (See Figure 1). More than 78% of participants were 18-44 years old. The respondents were mostly from urban (40.7%) and suburban (38.1%) area. The survey was mostly taken from participants of West Coast area (34.5%), following with Northeast (26.4%) and East Coast (20.9%) (See Figure 2).

The frequency of olive oil consumption is heavily concentrated towards very frequent consumption. 46.9% of respondents claimed that they consume olive oil almost every day, 27.4% 2-3 times per week, 8% once per week and only 17% responded that they consumed it once per month or few times a year. (See Figure 3).

Females were the influential consumers (48%) who were consuming olive oil almost every day and 2-3 times per week as opposed to males who corresponding consumption is 31%. Forty-five percent of the participants who consume olive oil almost every day or 2-3 times per week are from 18-44 years old, living in North East and East Coast in the Urban and Suburban area. This category of consumers is frequently purchasing olive oil in big boxes stores (30.3%) and in supermarkets (33.3%), (see Figure 4).
When asking the respondents to indicate the degree from (1) No Benefit to (5) Substantial Benefit to which olive oil provides or does not provides health benefits in the indicated areas, the majority of respondents were uncertain. The rest of the participants said that olive oil has no benefit of reducing diabetes with an average of 1.3 and with a standard deviation of 1.22.

When asking participants for the impact of olive oil on lowering the cholesterol the average response was 3.33 with a standard deviation of 1.28. The rest of the health areas that were tested are in the appendix in Figure 5.

Participants were asked to select from (1) No Impact to (5) Strong Impact to what factors impact or affect their choices when it comes to buying olive oil. Twenty respondents said that price has no impact on the purchase decision while 21 said that price has a strong impact when purchasing olive oil with an average of respondents of 3.19 (ON A 5-POINT SCALE) and with a standard deviation of 1.35. When asking about packaging, 24 respondents said no impact and 7 respondents said that has a strong impact with an average of 2.66 with a 1.17 standard deviation. Other impacts that affect the choices of purchasing olive oil you can check in the Figure 6 in the appendix.

When asking participants the level of trust regarding on communication/information channels that influence their opinion on olive oil, 23% of participants said that they do not trust TV, 31% were neutral while 7% said that they substantial trust TV. Eighteen percent of participants said that they do not trust Radio, 28% were neutral while 7% said that they substantial trust Radio.
When asking them about magazines and newspaper, 18% do not trust, 39% natural while 5% has substantial trust. Doctors were the most trusted sources with 4% do not trust, 19% neutral and with 27% substantial trust (see in Figure 7).

When asking participants were would they purchase olive oil, 38% said that they would be interesting to purchase olive oil in the supermarket, 39% in specialty/organic food stores. 24% said that they are not interested to purchase olive oil online, and 23% said that they are not interested to purchase olive oil in big boxes store (see in Figure 8).

50.4% of participants said that they are aware of that Croatia is a producer and exporter of olive oil 42.5% said that they are not aware and 7.1% said that they maybe believe that Croatia is a producer and exporter of olive oil (see in Figure 9).

33.6% participants indicate that their opinion about Croatia is that is one of the best to top-tier producers of olive oil while 46% have no opinion about Croatia olive oil market (see in Figure 10).

When asked participants if they are willing to purchase Croatian olive oil, 52.2% were interested while 4.4% was not interested. The category interested in purchasing Croatian Olive oil is mostly from East Coast, West Coast, and Northeast area. The age of this participants ranges from 18-54 years old and they purchase olive oil mostly in supermarkets, big box type stores, and organic food stores. They consume olive oil almost every day and mostly 2-3 times per week (see in Figure 11).
DISCUSSION;

The awareness of olive oil and its benefits to the American market is positive than expected. Younger population are the largest consumers of olive oil in this survey, and it's showing a healthy lifestyle among the participants and consumers of olive oil. Majority of the participants are frequent consumers of olive oil and they purchase olive oil mostly from the supermarket and big-box store that is a quite interesting result. From the research conducted on how to penetrate in the USA olive oil market, the experts said that is hard to penetrate in those large supermarket chains because of the restrictions and policies. On the other hand, when asking participants where would they like to buy olive oil, the majority said from supermarkets and specialty organic-food store. Exporters, especially Croatian one should conduct a larger research on this topic in order to target the right market and benchmark where would they succeed with the importing of foreign olive oil. Based on the research, for the olive oil producer, the most interesting thing that participants take into consideration before buying the olive oil is the way in which olive oil is packaged, what is the size of the bottle, the price and finally the origin of olive oil. Producers of olive oil should be aware of the marketing side of the business in order to penetrate among this participants.
Interesting facts is that majority of the American participants are unaware of the health benefits of olive oil and when they inform themselves about olive oil, the majority of them are asking doctors and family/friends for the recommendation. In my opinion, those participants are not perceiving olive oil as a normal product but as a medicine or prescription that they should consume for their health. Basically, they don't perceive what is good or bad olive oil, in that case, Croatian importers should take in consideration to partners with doctors or pharmaceutical company, and create a lobby in which the doctors will recommend to use Croatian olive oil because of their quality, country of origin and other health benefits. T Croatian olive oil producers should target niche market because of their limited production and quantity of olive oil. Croatian producer must commercial their product for the high-end quality and high-income market who are willing to pay the premium price.

Conclusion for these project is that Croatian producers who are willing to penetrate in the USA market should be aware that the larger number of the participant was younger generation, mostly millennial generation, and Generation Z, who are regularly informing themselves on the internet and are aware of the olive oil as a product to consume.

Croatian olive oil market can highly demand because of the awareness of Croatia as a touristic popular destination in the world. Futures study can be conducted on a larger population, mostly on millennial and Z generation who are becoming a big trend in every industry. These study can be introduced to the Croatian Olive Oil association in order to show what is important to take in consideration before expanding the business in the USA market.
Croatian producer should take in consideration that American population is still unaware of olive oil and in order to succeed with the import, the producer should invest into the marketing and education part of branding for the American consumer.

The limitation of these study was a small number of participants and time that the study was conducted. These study can be important for the practical implication to develop a bigger survey and data analysis for the more generalized market. Also, for the purpose of this survey, instruments from the other authors were combined because of the different segmentation and collection of information for this topic. This study analyzed American population on the awareness of the olive oil and its consumption.

Future research can take more time to do the survey on a larger sample that may provide more reliable results. The research could be repeated with the collaboration of Croatian Olive Oil Association and survey agencies for a larger target audience.
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Survey Questionnaire:

Dear Sir/Madam,

This questionnaire was designed for the purpose of research paper at the faculty RIT Croatia. The aim of this research is to obtain information pertaining to perception and marketing issues associated with olive oil. The questionnaire is anonymous and all responses will be exclusively used for academic purposes.

Please follow the instructions given on the next page. The questionnaire is composed of multiple questions. Circle the answer that represents your opinion or position according to the statement. Completing this questionnaire will take you around 4 minutes.

Thanks for your cooperation and your time!

With respect,

Matja Simon Červar
Survey Questions

1. What is your gender?
   - Male
   - Female

2. What is your age? Please, circle the answer;
   - 18-24 years old
   - 25-34 years old
   - 35-44 years old
   - 45-54 years old
   - 55-64 years old
   - 65-74 years old
   - 75 years or older

3. Which of the following best describes the area you live in? Please, circle the answer;
   - Urban
   - Suburban
   - Rural
4. Please indicate where you live by checking the appropriate box;

West Coast  _____
Southwest  _____
Mid-West  _____
East Cost  _____
Northeast  _____
Other  _____

5. How often do you consume olive oil? Please, circle the response that best approximates your consumption;

• Almost every day
• 2-3 times per week
• Once per week
• Almost every 15 days
• Once a month
• A few times a year
• Never
6. If you do consume olive oil regularly, where do you typically purchase olive oil?

- From organic food stores
- From producers
- From Big Box-type stores (Walmart, etc.)
- From supermarkets
- Other ______________________

7. In your opinion, please indicate the degree to which olive oil provides or does not provide health benefits in the indicated areas, selecting ‘1’ if you feel that olive oil provides no medical benefit and ‘5’ if you feel that olive oil provides a substantial benefit. If you are uncertain, please check the ‘uncertain’ option.

<table>
<thead>
<tr>
<th>Benefits</th>
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<th>No Benefit</th>
<th>Substantial Benefit</th>
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<tr>
<td>Reduce Heart Disease</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Diabetes</td>
<td>1</td>
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<td>3</td>
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<tr>
<td>Reduce Risk of Cancer</td>
<td>1</td>
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<td>Hair Moisture</td>
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<td>2</td>
<td>3</td>
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<td>Lowers Cholesterol Levels</td>
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<td>2</td>
<td>3</td>
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<td>Skin Smoothness</td>
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8. What factors impact or affect your choice when it comes to buying olive oil? Please select ‘1’ if a factor has no impact on your purchasing decision and ‘5’ if it has a strong impact.

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<td>Size of Bottle</td>
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</table>

Please indicate any other factors: _____________________________________________
9. Please, for each of the communication/information channels listed below, indicate your level of trust of the channel by circling the appropriate number, ranging from 1 (Do Not Trust) to 5 (Substantial Trust);

<table>
<thead>
<tr>
<th>Channel</th>
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<th>4</th>
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<td>Magazines and newspapers</td>
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<td>In shops selling olive oil / supermarkets</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Doctors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Friends, family, and colleagues</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Internet-based ads</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media commentary/stories</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Magazine and newspaper commentary/stories</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Please indicate any other trusted source: ____________________________________________________________
10. Please, indicate your opinion concerning the quality of olive oil produced by the below countries by assigning the following value to each country:

1: Top-tier or best producer
2: Mid-tier or mid-range producer
3: Bottom-Tier producer
4. No opinion

Italy  _______
Greece  _______
Croatia  _______
USA  _______
Spain  _______
Tunisia  _______
Other  _______

11. Where would you like to purchase olive oil? Please indicate your interest in the below purchasing possibilities by marking 1 for ‘No Interest’ and 5 for ‘Very Interested’

<table>
<thead>
<tr>
<th></th>
<th>Not Interested</th>
<th></th>
<th></th>
<th></th>
<th>Very Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Specialty / Organic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>food-store</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ethnic Food Store</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Online</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Big Box Store (eg.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Walmart)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following questions are oriented towards the awareness of the Croatian Olive Oil;

12. Are you aware that Croatia is a producer and exporter of olive oil?
   • Yes
   • No

12. Please indicate your opinion of Croatian olive oil by checking the appropriate box. If you have no opinion, please indicate that:
   One of the best to top tier producers of olive oil ______
   A mind-range or mid-tier producer ______
   A low or bottom-tier producer ______
   No opinion ______

13. Would you be interested in purchasing Croatian olive oil?

   Not Interested       Interested
   1  2  3  4  5
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>1402</td>
<td>1392</td>
<td>1615</td>
<td>618</td>
<td>1782</td>
<td>842</td>
<td>1300</td>
<td>43.7</td>
</tr>
<tr>
<td>Italy</td>
<td>430</td>
<td>440</td>
<td>399</td>
<td>416</td>
<td>464</td>
<td>222</td>
<td>472</td>
<td>13.3</td>
</tr>
<tr>
<td>Greece</td>
<td>320</td>
<td>301</td>
<td>295</td>
<td>358</td>
<td>132</td>
<td>300</td>
<td>320</td>
<td>9.8</td>
</tr>
<tr>
<td>Portugal</td>
<td>63</td>
<td>63</td>
<td>76</td>
<td>59</td>
<td>92</td>
<td>61</td>
<td>99</td>
<td>2.5</td>
</tr>
<tr>
<td>Other EU countries</td>
<td>11</td>
<td>13</td>
<td>10</td>
<td>11</td>
<td>14</td>
<td>10</td>
<td>17</td>
<td>0.4</td>
</tr>
</tbody>
</table>

- *World largest olive oil producers by country (1000 tons) Source: International Olive Oil Council, 2016*
Figure 1- Number of Participants

Figure 2-Living Area of Participants
Figure 3-Consumption of Olive Oil

- Almost every day: 53%
- 2-3 times per week: 31%
- Once a month: 12%
- Once per week: 9%
- Almost every 15 days: 5%
- A few times a year: 3%

Figure 4-Purchasing of Olive Oil
### Figure 5 - Health Benefits of Olive Oil

<table>
<thead>
<tr>
<th>Health Benefits</th>
<th>Mean (Average)</th>
<th>STDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Heart Disease</td>
<td>2.98333333333333</td>
<td>1.30827441</td>
</tr>
<tr>
<td>Diabetes</td>
<td>1.30827440581246</td>
<td>1.22866406499718</td>
</tr>
<tr>
<td>Reduce Risk of Cancer</td>
<td>3.35526315789474</td>
<td>1.33370608824604</td>
</tr>
<tr>
<td>Hair Moisture</td>
<td>3.32857142857143</td>
<td>1.31569597575622</td>
</tr>
<tr>
<td>Lowers cholesterol</td>
<td>3.33333333333333</td>
<td>1.28750054666305</td>
</tr>
<tr>
<td>Skin Smoothens.</td>
<td>3.18367355359244</td>
<td>1.37600360034759</td>
</tr>
</tbody>
</table>

No Benefit (1) Substantial Benefit (5)

### Figure 6 - Impact on Purchasing Decision

<table>
<thead>
<tr>
<th>Impact on purchasing decision</th>
<th>Average (m)</th>
<th>STDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>3.19642857142857</td>
<td>1.35460034140778</td>
</tr>
<tr>
<td>Packaging</td>
<td>2.66071428571429</td>
<td>1.17445460931601</td>
</tr>
<tr>
<td>Brand</td>
<td>3.14159292035398</td>
<td>1.28081486783364</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>3.17857142857143</td>
<td>1.38988810045591</td>
</tr>
<tr>
<td>Size of Bottle</td>
<td>3.2</td>
<td>1.16367024554509</td>
</tr>
<tr>
<td>Advertisement</td>
<td>2.18018018018018</td>
<td>1.273493392911</td>
</tr>
<tr>
<td>Health Benefits</td>
<td>3.26126126126126</td>
<td>1.3396859313878</td>
</tr>
</tbody>
</table>

No Impact (1) Strong Impact (5)
Figure 7-Level of Trust of the Communication/Information Channels

<table>
<thead>
<tr>
<th>Communication/Inf. Channels</th>
<th>Mean (Average)</th>
<th>STDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>2.568</td>
<td>1.212</td>
</tr>
<tr>
<td>Radio</td>
<td>2.648</td>
<td>1.165</td>
</tr>
<tr>
<td>Magazines/Newspapers</td>
<td>2.767</td>
<td>1.154</td>
</tr>
<tr>
<td>Spec. Magazines</td>
<td>3.274</td>
<td>1.19</td>
</tr>
<tr>
<td>In Shops/ super market selling olive oil</td>
<td>3.053</td>
<td>1.176</td>
</tr>
<tr>
<td>Doctor</td>
<td>3.72</td>
<td>1.113</td>
</tr>
<tr>
<td>Friends, family, colleague.</td>
<td>3.669</td>
<td>1.068</td>
</tr>
<tr>
<td>Internet ads</td>
<td>2.342</td>
<td>1.217</td>
</tr>
<tr>
<td>Social media commercial/stories</td>
<td>2.41</td>
<td>1.204</td>
</tr>
<tr>
<td>Magazines./Newspaper comen/stor.</td>
<td>2.684</td>
<td>1.117</td>
</tr>
</tbody>
</table>

Substantial Trust (5)
Do not Trust (1)

Figure 8-The Level of Possibilities of Purchasing Olive Oil

<table>
<thead>
<tr>
<th>Interest in Purchasing Possibilities</th>
<th>Average (m)</th>
<th>STDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>2.97826087</td>
<td>1.176493775</td>
</tr>
<tr>
<td>Spec./Organic Food Store</td>
<td>3.72826087</td>
<td>1.100482021</td>
</tr>
<tr>
<td>Restaurant</td>
<td>3.655913978</td>
<td>1.098364631</td>
</tr>
<tr>
<td>Ethnic Food Store</td>
<td>2.239130435</td>
<td>1.170794463</td>
</tr>
<tr>
<td>Online</td>
<td>2.365591398</td>
<td>1.168285126</td>
</tr>
<tr>
<td>Big Boxes Stores</td>
<td>2.608695652</td>
<td>1.118834968</td>
</tr>
</tbody>
</table>

Very Interested (5)
Not Interested (1)
Figure 9 - Awareness of Croatia as a Producer and Exporter of Olive Oil

Figure 10 - Opinion of Croatian Olive Oil Market
Figure 11-Interested in Purchasing Croatian Olive Oil