## UNIVERSITY OF LJUBLJANA

# FACULTY OF ECONOMICS

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FACULTY OF ECONOMICS

# MASTER'S THESIS

# CONSUMER BEHAVIOR ON THE MONTENEGRIN WINE MARKET

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## **AUTHORSHIP STATEMENT**

The undersigned **Tamara Čavor**, a student at the University of Ljubljana, Faculty of Economics, (hereafter: FELU), declare that I am the author of the master's thesis entitled **Consumer Behavior on the Montenegrin Wine Market**, written under supervision of **Prof. Dr. Barbara Čater**.

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# **INTRODUCTION**

Wine industry is a very important industry with its own tradition that lasts for hundreds of years. It has grown through generations who continued with a tradition, but also added a small piece of their own time. Every wine is produced with a passion and has its own story behind, full of cultural characteristics that make it a special and unique product. In some European countries, it is not possible to imagine a meal without a glass of good wine. It shows how important wine beverage has become on the market. For that purpose marketing has been recently taken seriously in the wine industry. Hence, the main approach started to be more oriented towards wine consumers, and to gain through their understanding of the product in a particular market (Brunner & Siegrist, 2011).

Today, there is a growing trend in the international wine industry which means globalization has a strong influence on the industry (Hussain, Castaldi, & Cholette, 2006). Therefore, the global wine industry grows more competitive and becomes more dynamic, with constant changes in demand, a consumer wants and trends, developing a new technology and searching for new markets. However, these constant changes imply changes within wine consumer behavior as well.

The study of consumer behavior is very broad and involves different processes of individuals or groups. It is a study of how individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy their needs and wants. Every basic marketing process is related to such definition of consumer behavior, and states that firms exist to satisfy consumers' needs (Solomon, Bamossy, Askegaard, & Hogg, 2006). In order to test marketing strategies and make them successful, after responding to consumers' needs, the next step is to get their response by analyzing all stages (mental and physical) through which they pass to make a choice. Consumers' needs can only be satisfied to the extent that marketers understand the people or organizations that use their products (Solomon et al., 2006). The needs and wants of consumers usually vary across different dimensions within consumer behavior such as culture, social groups, and individuals. All three dimensions can be treated separately, but they also have a strong influence on each other (Kotler, Keller, Brady, & Goodman, 2009). The starting point for better understanding of consumer behavior is individual, or personal characteristics (Kotler, Keller, Brady, & Goodman, 2009). One segment of personal characteristics is demographics. Other two segments imply individual product knowledge, and product involvement. Knowledge is a part of learning process which includes changes in our behavior from experience (Kotler et al., 2009). Product involvement, as a third important characteristic, is an individual difference variable found to influence consumers' decisionmaking, and communication behaviors (Michaelidou & Dibb, 2008).

Besides individual characteristics, other important parts influencing actual purchase decisions and consumer behavior in general, are usage occasions and product attributes. In the wine market, producers have a very difficult job to find a way to differentiate their

wine to consumers and help them make the right choice. The key issues are product attributes that each wine possesses. On the other hand, it is not easy for wine consumers either. They have thousands of different varieties of wine to choose from, based on price, taste, country of origin, type, region, etc. which sometimes creates consumer confusion (Barber & Taylor, 2011; Atkin & Thach, 2012). For instance, selecting a wrong bottle of wine has negative impact on consumer attitude, but also it could result in negative social preferences or social disapproval (Atkin & Thach, 2012). However, usage occasions are presented as something outside of personal traits and individual characteristics, more as an independent variable to influence consumer behavior. When consumers are making a purchase decision, they would consider one variety of wine to be appropriate in some occasions, but not in different ones (Forbes S. L., 2008). Hence, understanding of the consumer decision making process and other influential factors in consumer behavior is crucial in wine industry. Marketers must know and understand consumers' needs, follow global trends, continue with tradition, but still be innovative and bring new tastes to markets.

The European Union (EU-28) is the world leader in wine production where just France, Italy, and Spain represent around 80% of total wine production. Other important wine producers within the EU are Germany, Portugal, Romania, Greece, and Austria, followed by Hungary, Bulgaria, Croatia, and Slovenia (USDA Foreign Agricultural Service, 2014). However, total global wine production and inventories started to decline in 2012, Europe as an important player in the wine market had a significant drop in output in 2012 (Rabobank, 2012). Changing consumption habits mostly in southern European countries, negatively affected an overall demand. As a result of that, Per Capita wine consumption has been falling since 1995 (USDA Foreign Agricultural Service, 2012). Recently, it appears that wine production has led to significant increase during 2014, also in Northern and Southern Hemisphere (Rabobank, 2014). Wine industry does not depend only on wine production and consumption, but also on production of other (alcohol) beverages that represent wine substitutes. In such a competitive industry, wine producers must take into account all aspects of consumer behavior in order to gain their attention, trust and loyalty.

According to the International Wine and Spirits Research (IWSR), annual report on consumption of alcoholic drinks in Montenegro, a wine consumption has shown a growth of 1.8% from 2005 to 2011, with a slight decline in 2009. A forecast for upcoming years predicts an annual growth of 2.7%. Also, consumption per capita is very high, about 40 liters of wine per adult person which placed Montenegro ninth in the world, in 2009 (IWSR, 2009). World Health Organization county report shows that of all alcoholic beverages Montenegrins mostly consume wine (47%), spirits (42%), beer (11%), and other less than 1% (WHO, 2014). Specifically, the market is dominated by relatively stable, local still light wines. Consumers mostly prefer local red wines to white wines. Montenegro imports wine mainly from Balkan countries such as Serbia, Croatia, Bosnia and Herzegovina, Macedonia, Slovenia, but also from Bulgaria, Spain, Italy, France, and Germany. However, there are wines from other parts of the world except Europe, such as

Latin America, The United States, New Zealand, Australia, and South Africa (IWSR, 2009; IWSR, 2011).

The Montenegrin market lacks consumer behavior research on the wine market. Up to now, most of the information is presented by experienced wine agents, salesperson, or marketing consultants, but there are not many empirical data on the market about the wine consumer behavior. Based on this, the master thesis addresses very important factors that influence consumer behavior. These factors are personal characteristics which include socio-demographics, wine knowledge, and wine involvement. Furthermore, the next two factors are product attributes and usage occasions. Analyzing the factors and their influence, we will find out more about consumers' habits and preferences, their purchasing behavior, and final decisions.

The main purpose of the master thesis is to examine the purchasing behavior of Montenegrin wine consumers, and evaluate the influence of different factors on their purchasing decisions. The information will give better understanding of wine consumer behavior on the Montenegrin wine market. Producers will be able to achieve a greater prosperity in wine industry by giving consumers what they need. This research of wine consumers and their relationship to wine will help marketers see how people act and what they want. By creating a profile of Montenegrin wine consumers this research will help producers to recognize what kind of consumers they need to satisfy, and what expectations to meet. Moreover, as a part of the research analysis, it will provide information about the consumer choices and preferences towards wine, how they make decisions, and what influences them to make such choices.

Main goals of the master thesis are to:

- determine product attributes used by consumers when purchasing wine; see how consumers use those attributes to make their final decisions; understand the importance of product attributes to consumers; analyze and compare the importance of intrinsic and extrinsic product attributes in the decision-making process
- evaluate consumers' thinking and perceptions about domestic wines; intentions of buying Montenegrin wines
- see the differences in wine consumers' preferences of product attributes based on differences in demographics when purchasing wine
- provide information about knowledge and product involvement of wine consumers within the Montenegrin market; afterwards, see the influence of wine knowledge and involvement on selection of product attributes and purchasing decisions
- determine the most favorable usage occasions to purchase wine; whether usage occasions sets the level of importance for product attributes
- provide producers with information about the consumers' perceptions of the quality of domestic wines

This master thesis is structured into five broad chapters. The first chapter presents world trends of wine, with a special view on the Montenegrin wine market. The second chapter gives an insight into the literature which is relevant to this study, including a list of hypothesis, and the conceptual model of the study. Chapter three provides a theoretical framework, followed by the methodology used for empirical contributions of the thesis, whilst chapter four documents the findings and discussion of the results accordingly. Last but not least, chapter five gives recommendations and advices to Montenegrin wine producers for new market strategies. Any supporting documents that are referred to in these chapters are provided within Appendixes at the end of the thesis.

# 1 GLOBAL TRENDS OF WINE MARKET

This chapter presents the current situation in the world wine markets. However, it shows results and future estimations of the global wine trends and country based performances in the previous years, particularly in Montenegro. This chapter presents firstly development of world vineyard areas, followed by wine production and consumption, current and previous trends in the world. Last section shows the structure of the wine market in Montenegro divided into two subsections: vineyards and production, and wine consumption.

# 1.1 The World Vineyards: Development and Trends

Over the last couple of years numbers have indicated continuous downtrend of vineyards worldwide. Constant reduction in the world's vineyard caused serious problems for global wine production, with a very low record over years, especially in Europe. However, the European Union's wine reforms in 2008-2011 took important place in global vineyard reduction, stipulating that 270 Mha (thousands of hectares) of vineyards had to be reduced in three years (Gibb R., 2012). Since 2008, the wine reforms for permanent abandonment mainly affected Spain which reduction in vine areas declined 13%, France 7%, Italy 7% and Portugal 3% (with forecast for 2012), but also other EU countries such as Bulgaria, Hungary, and Greece were affected by the reform (OIV, 2012b)<sup>1</sup>. Since the end of the community abandonment programme, the EU vineyard surface area has continued with significantly slower decrease of 1% between 2011 and 2012 (OIV, 2012a; OIV, 2013a), and decrease of half as much, 0.5% between 2012, and 2013 (OIV, 2014a). The total vineyards, including wines for wine grapes, table grapes, or grapes for drying, in production, or awaiting production, decreased by 6 to 7 Mha in Italy, France, and Portugal, while Spain recorded an increase of 5 Mha in 2013 (OIV, 2014a). The expansion of Asian vineyards recorded in the previous years, reached more than a fifth of the total world vineyards 22.7% in 2012 (OIV, 2013a). In 2013, China continued with 20 Mha increase, and southern hemisphere (except Brazil, which restructured its vineyards) followed the positive trend, with 3Mha increase in Argentina, and 2 Mha in Chile (OIV, 2014c). On the

<sup>&</sup>lt;sup>1</sup> See Appendix A, Figure 1.

other hand, Australia vineyards decreased by 4 Mha less in 2013 (OIV, 2014a), while vineyards in New Zealand lead to a slight increase between 2012 and 2013 (OIV, 2013a). Declining growth in vineyards in the United States in 2012, still continues but also maintains positive and stable (OIV, 2013a). Following a declining trend from previous years, the forecast for 2013, shown in Figure 1, estimated decrease, but at a slower pace (OIV, 2013a). Based on the available data, the world vineyard surface area remained almost stable at 7436 Mha in 2013 (OIV, 2014c).

*Figure 1*. World Vineyards Areas (with estimates for 2013 in Mhl - Millions of hectoliters) *Mha* 



Source: OIV, Global Economic Vitiviniculture Data, 2013a, p. 3, Figure 1.

#### **1.2 Wine Production**

World wine production in 2012 (excluding juice and musts) was extremely modest with 254.9 Mhl (Millions of hectoliters), indicating a decrease of 6% comparing to 2011 (OIV, 2013a). The latest developments resulted in a significantly high global wine production (excluding juice and musts) in 2013, with 276.7 Mhl, being 21.8 Mhl more than in 2012 (OIV, 2014a). The world wine production from 2000 to 2013 is shown in Figure 2.





Source: OIV, State of the Vitiviniculture World Market, 2014a, p. 7.

EU wine production in 2013 reached expectedly higher level (162.2 Mhl) than in 2012 (146 Mhl), which indicated a rise of 11% (OIV, 2014a). The consistent developments across the EU countries resulted in either stable, or positive trend in wine production. There was a 2% increase in Italian production in 2013, comparing to 2012, which made Italy the largest wine producer in the world (see Table 1). Spain had a remarkable record, with an estimated increase of 37% in 2013, while there was a low production in France, with a slight increase from 2012. Other significant wine producers noted increase in 2013 as well, such as Portugal, Romania, Greece, and Hungary. However, the production in Bulgaria and Germany decreased in 2013/2012 (USDA Foreign Agricultural Service, 2014; OIV, 2014a).

Unit: 1000 hl*	2009	2010	2011	2012	2013 Forecast	2013/2012 Variation in volume	2013/2012 Variation in %	Rank ing
Italy	47314	48525	42772	43816	44900	1084	2%	1
Spain	36093	35353	33397	31123	42700	11577	37%	2
France	46269	44381	50764	41059	42016	957	2%	3
<b>United States</b>	21965	20887	19187	20510	22000	1490	7%	4
Argentina	12135	16250	15473	11778	14984	3206	27%	5
Chile	10093	8844	10464	12554	12800	246	2%	6
Australia	11784	11420	11180	12315	12456	142	1%	7
China	12800	13000	13200	13816	11700	-2116	-15%	8
South Africa	9986	9327	9725	10550	10972	422	4%	9
Germany	9228	6906	9132	9012	8300	-712	-8%	10
Portugal	5868	7133	5610	6308	6740	432	7%	11
Romania	6703	3287	4058	3311	4276	966	29%	12
Greece	3366	2950	2750	3115	3700	585	19%	13
Hungary	3198	1762	2750	1776	2618	842	47%	14
New Zealand	2050	1900	2350	1940	2484	544	28%	15
Austria	2352	1737	2814	2125	2354	229	11%	16
Bulgaria	1427	1224	1237	1337	1305	-32	-2%	17
OIV World Total**	272217	264495	267413	255891	276701	20810	8%	

Table 1. The Major World Wine Producers 2013

\* Countries for which information has been provided with a wine production of more than 1 Mhl.

\*\* OIV estimate: mid-range estimate. Range for evaluation of 2013 world production from 276.5 Mhl to 285.4 Mhl. Source: OIV, State of the Viniviticulture World Market, 2014a, p. 6.

Regarding the not EU countries, among the major wine producing countries in the southern hemisphere, there was a positive trend of wine production in the United States and China. In South America, Argentina was the most distinguished country in wine production in 2013, followed by Chile, unlike Brazil which recorded a decline in 2013/2012, and production level close to 2009. In South Africa production increased, as well as in New Zealand and Australia (OIV, 2014a). After the past few years of production growth in

China, the recent records form 2013 noted significant decrease (OIV, 2014a). The overall

wine production in 2013 can be quantified as relatively high, or average to high (OIV, 2013a; OIV, 2014a).

# **1.3 Wine Consumption**

Global wine consumption saw the beginning of its decrease when financial and economic crises hit the market in 2008, and they still have impact, but at much lower stage. Current recovery of the global wine market will slowly take over the recorded shortage during a few last years (OIV, 2013a; OIV, 2013b). In 2012/2013, wine consumption was restricted by the strong impact from poor development of vineyard areas, and very low wine production in early stages of 2012. The total world wine consumption forecast for 2013 was 238.7 Mhl, which is 2.5 Mhl less than in 2012, as shown in Figure 3. With regard to previous records, global wine consumption appeared to be quite stable, on the whole (OIV, 2014a).



Source: OIV, The Wine Market: Evolution and Trends, 2014b, p. 5.

Traditionally, the EU wine consuming countries still capture the top positions of world wine consumption. As seen in Table 2, France has still been ranked as the largest wine consumer since 2000, although wine consumption started to decrease from 2009 and continued between 2012 (30.2 Mhl), and 2013 (28.1 Mhl). Other high ranked EU wine consumers recorded slightly less decrease of 0.8 Mhl in Italy, and 0.2 Mhl in Spain (OIV, 2014b). Increase in consumption can be seen only in Germany, by 0.3 Mhl, and 20.3 Mhl in 2013 (USDA Foreign Agricultural Service, 2014).

Table 2. White Consumption by Country							
	2012	2012 Foregoat	2013/2012	Variation in			
Unit: 1000 hl	2012	2015 Forecast	difference	%			
France	30269	28181	-2088	-7%			
<b>United States</b>	29000	29145	145	1%			
Italy	22633	21795	-137	-1%			
Germany	20000	20300	300	2%			

Table 2. Wine Consumption by Country

17477	16815	-662	-4%
12801	12738	-63	-0.5%
10051	10337	286	3%
9300	9100	-200	-2%
5396	5289	-107	-2%
4600	4551	-49	-1%
3612	3676	64	2%
3399	3488	89	3%
3080	3130	50	2%
919	921	2	0.2%
	17477 12801 10051 9300 5396 4600 3612 3399 3080 919	174771681512801127381005110337930091005396528946004551361236763399348830803130919921	$\begin{array}{c ccccc} 17477 & 16815 & -662 \\ 12801 & 12738 & -63 \\ 10051 & 10337 & 286 \\ 9300 & 9100 & -200 \\ 5396 & 5289 & -107 \\ 4600 & 4551 & -49 \\ 3612 & 3676 & 64 \\ 3399 & 3488 & 89 \\ 3080 & 3130 & 50 \\ 919 & 921 & 2 \\ \end{array}$

Source: OIV, The Wine Market: Evolution and Trends, 2014b, p. 3-4.

Portugal and United Kingdom had stable consumption of 4.5 Mhl, and 12.7 Mhl in 2013 (OIV, 2014b). On the other hand, the United States became the biggest wine consumer in terms of volume, with 29.1 Mhl in 2013 (OIV, 2014b). Agence France-Presse predictions indicate even more growth of 10% for US wine consumption between 2011 and 2015 (AFP, 2012). By 2016, they expect to have a 12.16% growth in consumption (Wine trends, 2013). However, the current US consumption growth has slowed down, it is only 0.15 Mhl higher than in 2012, being a 0.5% increase in 2013 (comparing to 2% increase between 2011 and 2012) (OIV, 2014b). Future expectations for China, the fastest growing wine consumption market in the world are extremely high (Crummy, M., 2012). Recent forecast showed a decrease of 0.6 Mhl, or 3.8% between 2012 (17.5 Mhl) and 2013 (16.8 Mhl), whilst Australia's consumption decreased 0.1 Mhl in 2013, after several years of consumption growth (OIV, 2014b). In the rest of the world, forecast for Argentina, Chile, South Africa, and New Zealand wine consumption is quite stable, with increase between 1-3% in 2013 (OIV, 2014b).

Moreover, wine consumption per capita among big countries remains the biggest in France and Italy, but they have been cutting back in last couple of years (Daily Chart, 2012)<sup>2</sup>. French consumption per capita is set to decrease by 4.4%, Italian by 2.7%, and UK 4.3%. Germany is the only remaining hope for the European market, with a 2.1% forecasted growth (AFP, 2012). This time the new records in wine consumption per capita have been achieved by microstates, such as Vatican City and Luxembourg (Lyman, 2014). According to the research from the California Wine Institute, the Vatican City consumed 74 liters of wine per capita, which is more wine per person than anywhere else in the world. On the second place is Luxembourg, with 56 liters per person, per year (Wine Institute, 2014). The United States consumes very little per capita, just around 11 liters, comparing to consumption in terms of volume. The same scenario applies to China where consumption per capita is very low, but the number of wine consumers is extremely high (Schiller, C.G.E., 2013).

<sup>&</sup>lt;sup>2</sup> See Appendix A, Figure 2.

Based on the overview of global wine market, we can have a picture the current situation of wine trends, which is an introduction to more specific analysis of wine consumers. The world wine market is currently stable with an increasing trend in wine production, and minor changes in consumption. Furthermore, the following section presents the Montenegrin wine market, its structure, production and consumption of wine.

# 1.4 Wine in Montenegro

Wine production is an important sector in Montenegro, with a share of 0.87% of GDP. Montenegro is a net exporter of wine. Wine is the top exported product of the food industry. The leading company is "13 Jul Plantaze", with its capacity of 140,000 hl of wine, being the biggest in the country, but also there are a number of small wineries with a capacity of 100,000 bottles per year, and a small percentage of households that produce wine for their own needs. According to data from 2011, there were farm reared vines on a total area of 2,535 ha in 2001. Grapes are used for the production of wine and brandy. Register of grapes and wine producers has been established in accordance with the wine law. Every manufacturer needs to be authorized for the cultivation of vines, as well as entered into the Registry, if producing grapes on over 0.05 ha area, and having over 200 vine plants. There were 380 such producers in 2012 (Ministry of Agriculture and Rural Development, 2012).

Consumption per capita is high, at approximately 40 liters per adult person (it was ranked ninth in the world in 2009) (Wine Institute, 2010). The market is dominated by local still light wine. In 2011, consumption has been relatively stable, at around 2.4 - 2.45 million cases. Imported wine comes mainly from other Balkan countries. "13 Jul Plantaze" is a dominant producer. The company owns over 50% of the vineyard area in Montenegro. As in the rest of the region, red wine is more popular than white. 'Vranac' is the most popular red grape variety, and is perceived as a brand on its own by locals. This grape is indigenous to Macedonia, Serbia, and Montenegro. 'Krstac' is the dominant white wine grape variety, followed by chardonnay. Sale of wine on premise is small, and small-bottle formats are the most popular. Locals tend to drink alcohol at home before a "big night out" (IWSR, 2011).

## 1.4.1 Vineyards and Wine Production in Montenegro

According to the Statistical Office of Montenegro (MONSTAT) and the Agricultural census 2010, there was a total of 2535.7 ha of vineyards area in Montenegro, with the major part of 2195.3 ha being owned by business entities, and remaining 340.4 ha by family agricultural holdings. There was a total of 10,531,865 grapes-vines in 2010, where the biggest part of 9,128,342 grapes-vines is owned by business entities, and only 1,403,523 grapes-vines is owned by family agricultural holdings (MONSTAT, 2013b, p. 97).

Production of wine in Montenegro was quite stable over last couple of years, from 2009 until 2012. As it can be seen in Figure 4, the production was 102,966 hl in 2012, which is 1% less than in 2011 (104,436 hl) (MONSTAT, 2012).



Figure 4. Production of Wine in Montenegro, 2000 – 2012 (in hl)

Source: MONSTAT, Industrial Production, 2012.

## 1.4.2 Wine Consumption in Montenegro

Total wine consumption in Montenegro ranged between 2.3 and 2.5 million cases (9 litre cases) from 2006 to 2011, as can be seen from Figure 5. There was an increasing trend of 7% from 2006 to 2008, and also an increase of 5% from 2009 to 2011. The total increase in the period 2006-2011 was 10%, with only 1.6% decline between 2008 and 2009 (IWSR, 2011). The overall consumption trend can be characterized as growing.

Figure 5. Consumption of Wine in Montenegro, 2006 – 2011 (in Thousands, 9 litre cases)



Source: IWSR, Executive Summary: Montenegro 2011, 2011, p. 2.

The most consumed type of wine is still light wine, with 98% consumption, other types are sparkling wines and light aperitifs, 1% each. Local wines are more popular with 67% share of the market, comparing to 33% share of imported wines. The most consumed imported

wines are Macedonian, Italian, and French wines. Consumers have been 80% interested in still light red wines, and 20% in white wines. However, the most purchased brand is a well-known local brand "Plantaze", being a leader on the Montenegrin wine market (IWSR, 2011).

According to 2011 census, the total population in Montenegro is 620,029. However, the relation between men and women is balanced. Female population counts 51% of the total number, while male represents 49% (MONSTAT, 2013a). Those aged 15 years and older count 81% of the total population (WHO, 2014). According to research carried out by the World Health Organization, Montenegro is above the world average, which is 6.2 litres of pure alcohol per year (aged 15 years or older). In Montenegro, the average annual consumption of every person aged 15 or older was 8.7 litres of pure alcohol, in 2010 (WHO, 2014).

However, only 38.3% of the world population are actual drinkers, which means that real drinkers consume 17 litres of pure alcohol averagely, per year (Thomas, G., & Jasarevic, T., 2014). The average annual consumption of Montenegrin drinkers (aged 15, or older), was 13.4 litres of pure alcohol, in 2010 (WHO, 2014). By 2012, with a small increase, per capita wine consumption in Montenegro counts on average 13.9 liters of alcohol (Wine Institute, 2014). Nevertheless, the total consumption of alcohol per capita by gender (aged 15, or older) was 18.7 litres of pure alcohol by males, and 7.0 litres by females, in 2010. The most preferred type of alcoholic beverage per capita in Montenegro in 2010 was wine (47%), followed by spirits (42%), and beer (11%) (WHO, 2014).



Figure 6. Wine consumption per capita in Montenegro (in litres of pure alcohol in 2010)

Source: WHO, Global Status Report on Alcohol and Health 2014: Country Profiles, 2014.

This overview provided an overall insight into the Montenegrin wine market, its trends, changes, and developments of vineyards, production and consumption of wine over the past couple of years. It contributes to a more detailed analysis of the behavior of the wine

consumers on the Montenegrin market later on in the study. Although being a small county, Montenegro is an important wine destination in the Balkans.

# 2 CONSUMER BEHAVIOR AND ITS APPLICATION TO THE WINE MARKET

The second chapter presents a literature review of consumer behavior composed of six main sections. It starts with an introduction to consumer behavior, explaining a definition and basics of matter, followed by main elements of consumer behavior analysis, and relationship between them. Furthermore, it presents main factors, firstly internal factors named as individual characteristics (demographics, product knowledge, and product involvement), and explains further the impact of such independent variables on consumer behavior; this is followed by the impact of external factors, such as usage occasions, on consumer behavior. Accordingly, it elaborates the stages in the consumer decision-making process, as well as the wine consumer decision-making process, and various product attributes. Last but not least, it presents the conceptual model of wine consumer behavior, introducing all the hypotheses of the study. However, as a supplement to this review, there are relevant research papers presented in each section in terms of wine as a product category.

# 2.1 Definition of Consumer Behavior

Consumer Behavior is an interdisciplinary field with complex pattern of understanding for marketing researchers. It is defined in the literature as activities people undertake to select, purchase, or dispose of a product, services, ideas, or experiences to satisfy their needs and wants (Solomon, Bamossy, Askegaard, & Hogg, 2006, p. 6; Kotler, Keller, Brady, & Goodman, 2009, p. 224).

As a field of study, consumer behavior is focused on consumers' activities, or buying behaviour ("why people buy"). In the recent years, more researchers have focused on consumption analysis, or "why and how people consume". Moreover, consumer behavior is explained by several activities such as: obtaining, consuming, and disposing. Activities that include searching for information regarding products or services, evaluating alternative products or brands, circumstances in which purchase occurs, are referred to as obtaining activities. All issues related to consumption are consuming activities, explaining by whom and how a product is used. Disposing activities are related to how consumers dispose of products or services (Blackwell, Miniard, & Engel, 2001, pp. 6,7).

Other authors defined consumer behavior as very dynamic and interactive process involving exchanges between people. In other words, consumer behavior is constantly changing in accordance with dynamic environment of thinking, feelings, and individual's actions in everyday life. These changes make product lifecycle shorter than ever before, but also encourage companies to innovate and offer superior value for consumers. Consumers' actions such as purchasing and consuming products create interaction which provides marketers with an insight into a better understanding of what products and brands mean to consumers, what affects purchasing, how they use products, etc. Both sides have benefits from such learning process. The more marketers know how these interactions influence individuals, the better they can satisfy consumers' needs and wants. Upon interactions, or simultaneously, people exchange certain things, such as money, in order to receive products and services (Peter & Olson, 2010, pp. 5-9). Therefore, understanding of consumer behavior is a win-win game in which consumers and marketers can learn and make a profit.

However, studying consumer behavior involves three major approaches such as interpretative approach (based on cultural anthropology theories and methods, using long interviews and focus groups to understand consumer behavior), traditional approach (based on social, cognitive, and behavioral psychology, using experiments and surveys to test theories and explain consumer decision making), and marketing approach (based on economics and statistics, using math models and simulation to predict consumer choice and behavior) (Peter & Olson, 2010, pp. 9-10). All three approaches have been used by researchers to create successful marketing strategy and understand consumer behavior.

## 2.2 Consumer Behavior Analysis

Authors Peter and Olson present three main elements for consumer behavior analysis, explaining the relationships between them. The elements are "affect and cognition", "behavior", and "environment", as shown in Figure 7. Each element can be analysed independently, but, at the same time, one element can influence the changes of the other two elements, or be an effect of these changes. This represents reciprocity between the elements, and makes the system more interactive and dynamic, with a certain degree of uncertainty (Peter & Olson, 2010, p. 23).





Source: Peter, J. P.; Olson, J. C., Consumer Behavior and Marketing Strategy (9th ed.), 2010, p. 26.

"Affect" response represents consumer emotions, feelings, and attitudes about a particular product, as a reaction on marketing stimuli and events, while the "cognition" involves mental process of thinking, learning and interpreting marketing activities, and requires more time for memorizing and evaluating such activities. Based on their experience and involvement, consumers are able to develop certain level of knowledge and their own opinions about products. This element, for instance, cannot be observed directly by researchers, because it is something that is happening in a consumer's head. On the other hand, the consumer "behavior" response produces a physical action that can be visible and measured by others. Here consumers express all the feelings and thinking about products by movements and actions, such as for example buying, talking, or examining packages. Further, the consumer "environment" response explains the impact of external factors that influence consumer mind and behavior in purchasing decisions (Peter & Olson, 2010, pp. 21-23).

All three elements have to be evaluated together with relationships between them in order to develop a comprehensive understanding of consumer behavior and create corresponding marketing strategy, which will have a feedback effect on the elements in the wheel. This process is highly interconnected and dynamic, with constant changes of consumer lifecycles.

# 2.3 The Impact of Internal Factors on Consumer Behavior

Consumer behavior is affected by various factors which can be classified as internal factors, that are individual characteristics or consumer influences, and external factors such as cultural and social, or organizational influences. Both factors, including each segment: individual, cultural, and social can be studied independently to see important influences on consumer behavior, especially with consumers' needs and wants, which usually vary in different circumstances (Kotler, Keller, Brady, & Goodman, 2009, p. 224; Blackwell, Miniard, & Engel, 2001, p. 38).

Individual or personal characteristics are very important dimension in the study of consumer behavior that affects buyer's decisions. According to Kotler et al. (2009, pp. 230-236), these characteristics are classified into several main groups such as: age and stage in the lifecycle (age, gender, and transformations through life), occupation and economic circumstances (time patterns and money issues), personality and self-concept (specific/unique traits reflected through stimuli responses), and lifestyle and values (activities, interests and long term choices). In addition, other ways of defining individual characteristics are found in the literature. For instance, demographics (age, gender, income, occupation, and religion), personality, culture, attitudes, motivations, knowledge, experiences, family, values, etc. are some of variables that represent individual characteristics as well. However, examination of any individual characteristics will prove how "individual and unique a consumer's behavior can be" (Blackwell, Miniard, & Engel, 2001, p. 7).

The following subsections are more focused on explaining the three most important individual characteristics for this study: demographics, knowledge, and involvement. Each of the characteristic has been considered according to its impact on consumer behavior. Pertinent researches show their importance and a big role in the decision-making process, particularly with wine product category. All three characteristics are set as independent variables, which are explained later in the study.

### 2.3.1 Demographics and Consumer Behavior

Demographics have been widely used by researchers in different fields of study, including marketing and consumer behavior. Demographics are described as "the size, structure, and distribution of a population" (Blackwell, Miniard, & Engel, 2001, p. 188). It is a summary view of a population, or current situation within particular segment of the population. Regarding Pol, demographics have long history in marketing studies; about 17% of the articles he examined include demographic data in their research. Most often used demographic variables are age, gender, income, and education, followed by occupation, marital status, ethnicity, household size, children, and region (Pol, 1991).

Demographics provide means for categorizing individual consumers into homogenous market segments, also to identify trends in the marketplace (Forbes S. L., 2008). One way of using demographic analysis is defining market segments, or creating market strategy based on similar characteristics and behavior between groups of people. Marketers create specific segments based on demographic variables such as age, income, ethnicity, or other characteristics, that correspond to a particular consumer behavior within the segment. Demographics can be studied to analyze different trends in the market, and predict future demand and consumption of certain products and services. In addition, demographic analysis can contribute to monitoring changes in trends on the market, and consumer behavior in general. Usually, demographics are used to give marketers basic, or initial information in order to develop new, or improve existing marketing strategies and programs, for example new advertisements, product positioning, entering a new niche market, brand extension, etc. (Blackwell, Miniard, & Engel, 2001, pp. 188-189). The study in India used demographic variables to analyse impact on brand management of consumer durables. Income and occupation were the strongest variables, followed by age and education, while gender had no significant influence. Therefore, these variables play an important role in defining consumers' attitude toward specific products (Nandamuri & Gowthami, 2012). However, demographics have been used in many studies examining specific products, such as wine.

There were significant results found related to age and income in terms of consumer involvement with wine. Up to 55 years old consumers have influence on the increase in product involvement. In addition, the group aged 42-54 represents the most regular and highly involved consumers in purchasing wine. The data shows that wine is mostly consumed by those having up to 35 thousand dollars income, but the most involved were

people with higher income, within 50 to 70 thousand dollars. This study shows no significant difference between gender, and no influence on involvement with wine (Quester & Smart, 1996). Other study from China shows that wine consumption volume and price per bottle are influenced by consumer age and occupation, but gender and income have no impact on the price they're willing to pay (Camillo, 2012).

According to Forbes, gender has an influence on consumer behavior when selecting product attributes for purchasing wine, such as region of origin and discount/promotion price. However, it has no influence on frequency of buying and drinking wine, nor on numbers of attributes used in the purchase decision. The study provides evidence of existing gap between male and female wine knowledge, where males have slightly higher objective knowledge then females (Forbes, Cohen, & Dean, 2010; Forbes S. L., 2012).

Furthermore, specific differences in preferences of male and female were found in wine consumer behavior study in Australia. Findings showed that females consume and spend less for purchasing wine than males, but also they pay more for a bottle of wine, which means that women are resistant to risk more than men. Furthermore, females have more preferences towards white wine and sweeter taste of wine, especially at young age. Tastes, aroma, and extrinsic factors, such as label information, were important attributes among females, while males preferred "aged", or vintage characteristics of wine. Significant differences were found for body wine styles (full, medium, and light) preferences, as well. Among the respondents most of them are quite young population, between 18 to 34 years old, which represents Millennial and Generation-X age groups (Bruwer, Saliba, & Miller, 2011). In the Generation-X age group females have much higher decision maker role position in their households, comparing to their male counterparts (Bruwer, Li, Bastian, & Alan, 2005).

Other study showed influence of age and gender on product attributes, and importance of label and bottle design when purchasing wine. Mostly females and consumers aged between 31 and 41 are making wine purchasing decisions, but at the same time women expressed that they are more concerned not to make a "wrong choice" (Barber, Almanza, & Donovan, 2006). Contributions of the study confirm importance of demographics, particularly gender and lifestyle stages, for wine consumer behavior on a specific market.

Based on Luchs and Mooradian, females tend to be more agreeable than males (Luchs & Mooradian, 2011). Other researchers find significant results explaining important influence of gender for decision making styles. There are four common factors found to be applicable to males and females, such as brand consciousness, perfectionism, confusion in choice selection, and impulsiveness. In addition, other factors are proved to be applicable only for females (quality consciousness), or males (satisfaction, enjoyment-variety seeking, time restricted) (Mitchell & Walsh, 2004).

Moreover, some researchers have examined purchasing behavior based on reciprocal consumer behavior, with two major components: gratitude and obligation, and gender as a moderator. The effect was different for male and female. Purchasing behavior of women has been influenced more by obligation effect, than purchasing behavior of men. On the other hand, men felt appreciation and were more thankful to salespersons which gave them reason to make a purchase. Therefore, gratitude effect has a stronger influence on male than female purchasing behavior (Kolyesnikova, Dodd, & Wilcox, 2009).

From interviews of UK consumer study, Ritchie (2007) found out about differences between males and females decision making in different usage situations. For example, in a restaurant a woman would often let a man choose a wine. Therefore, the author explained purchasing wine as a more "masculine behavior", and women have agreed upon this ascertainment. But males are usually seen to purchase wine for public events, while females used to purchase wine with other groceries in the supermarkets for private consumption (Ritchie, 2007).

In other research, numbers showed significant differences in wine activities between sexes. In New Zealand, males participate 19.4% more in wine activities, such as visiting wine events, and maintaining active membership in the wine clubs, comparing to females. Wine purchasing behavior indicates that females are purchasing wine mostly in supermarkets and other grocery stores, while males preferred to purchase wine in wine shops, cellar doors or internet order (Mitchell & Hall, 2001).

From these studies it can be seen that it is mostly gender that has an important role when choosing wine attributes, such as price, region of origin, brand, tastes, aroma, label, bottle design, and vintage characteristics, when making a purchase. Moreover, gender impacts on different wine activities in terms of place of purchase, or additional participation in wine clubs and wine events. The impact of demographic characteristics on the importance of various product attributes was not evaluated by many researchers.

## 2.3.2 Product Knowledge and Consumer Behavior

Consumer knowledge has been explained in several ways in the literature, with regard to consumer behavior. There are many different classifications and types of consumer knowledge that are used in the study of consumer behavior. Some authors look into consumer knowledge as a very broad field, making a more general picture, while others are focusing on product knowledge which corresponds better to this study.

According to Blackwell et al. (2001, p. 259), product knowledge is defined as a total amount of information consumer received from his earlier experience, that is relevant to a specific product. It means that everything we have ever seen, bought, or learned about a product, is stored in our memory and reflected through consumer behavior as the knowledge about a product. One of the classifications found in the literature, by Blackwell

et al., contains the following five types of consumer knowledge: knowledge of the product experience, knowledge of the product attributes and associations, purchase knowledge, consumption and usage knowledge, and persuasion knowledge (Blackwell, Miniard, & Engel, 2001, p. 260). Each type of knowledge gives essential contribution to the understanding of consumer behavior.

In order to have experience about a product, people first have to buy a product. This can be an issue especially with new products, but also with type of products such as wine, where there are hundreds of different types of wine one next to the other, and consumer needs to make a decision. Therefore, marketers usually solve the problem by advertisements, raising awareness among consumers, and assisting them in recognizing, or recalling a brand from their memory. It is possible that certain products cause emotional reactions of consumers which will create product associations that can be either positive or negative. The process of analysing such associations is related to product attributes that are usually triggers in decision making (Blackwell et al., 2001, p. 261). In addition, product knowledge includes information about actual purchase, where, or when consumers are going to buy a product. For example, knowing when it is the best time period for sales or promotions. However, consumers are unlikely to buy a product when they do not know how to use it. Hence, consumption and usage knowledge are very important parts of consumer knowledge, as well as consumer behavior in general (Blackwell, Miniard, & Engel, 2001, p. 264).

Other way of understanding consumers' product knowledge is explained by Peter and Olson (2010). They are using three types of product knowledge such as product attributes, benefits, and values, shown in Figure 8. All three types are connected, and create knowledge network known as "means-end chain" which provides insights into what consumers feel and think about products (Peter & Olson, 2010, pp. 70, 77).



Figure 8. The Means-End Chain of Product Knowledge and Product Involvement

Source: Peter, J. P.; Olson, J. C., Consumer Behavior and Marketing Strategy (9th ed.), 2010, p. 86.

From the cognitive perspective, marketers want to know if consumers have knowledge about physical characteristics of their products or brands, what they know, and how actively they use product knowledge in decision making. Therefore, marketers use product attributes to attract, inform, and communicate with consumers through products. In addition, a more effective method of gaining product knowledge is to look at consumers' benefits, or desirable outcomes that may be achieved by using a product. In addition to positive outcomes, or consequences which satisfy consumers' needs, and make them feel good, there are undesirable consequences, as well. For instance, certain level of risk can prevent a purchase and consumption of a product. In that case, perceived risk provides consumers with product knowledge about unpleasant outcomes that might occur if making a purchase. According to consumers' personal goals or values, emotions can be included in purchasing decision, what is also a process of learning about products, and helps to improve consumer product knowledge (Peter & Olson, 2010, pp. 70-75).

From empirical study consumer's product knowledge is divided into three categories such as objective knowledge, subjective knowledge, and familiarity with a product, according to Brucks (1985). General knowledge gained from experience, and stored in memory represents objective knowledge. In other words, that is real, or actual consumer's knowledge about a particular product. Subjective knowledge is personal perception of product knowledge, which measures how much consumers know, or think they know about products (Brucks, 1985). The third category, familiarity, is described by product experience and number of purchases which is closely related to prior product knowledge that includes all accumulated information by consumers (Rao & Monroe, 1988). Brucks in her study examined the effect of product knowledge on various product characteristics, or product attributes information search in the pre-purchase stage. The results show influence of consumer's product knowledge in acquisition of new information, as well as a better efficiency in product attributes information search (Brucks, 1985). In addition, there are significant differences in affecting information processing activities between objective and subjective knowledge. It was found that, only in complex usage occasion, consumers with higher objective knowledge were seeking more information about a greater number of product attributes, and less information about inappropriate attributes. On the other hand, subjective knowledge was not significantly related to the number of attributes, but it had significant results in relation with asking for a dealer opinion rather than using attributes information (Brucks, 1985).

In order to assess product quality, Rao and Monroe (1988) examined influence of product knowledge on price as an extrinsic product attribute, and intrinsic attributes. They argue that product quality should vary depending on consumers' product knowledge and familiarity with product attributes for a specific product class. The results proved that familiarity has an influence on the price-perceived quality effect, which means that low and highly familiar consumers have a more positive price-perceived quality effect, than moderately familiar consumers. Moreover, a tendency to use price as an indicator of product quality varies depending on the product class. For instance, the use of price tend to increase with familiarity only for products with wider quality variation in the marketplace, whilst the use of price decreases as consumers' familiarity increases, with products with no quality variation (Rao & Monroe, 1988). This indicates that those consumers that are unfamiliar with a product would use more the price cue (extrinsic attributes), and those with higher familiarity would use the price only when intrinsic attributes are not significant enough to identify product quality.

Furthermore, there are appropriate measures found in the literature to estimate subjective and objective knowledge, separately. According to researches and findings, subjective knowledge is easier to measure with already developed and tested scales, whilst objective knowledge can be examined only with a test, or scale specifically made for particular product class. For example, the valid self-report measure that has been used in different studies can test consumer theories and support practical experiments (Flynn & Goldsmith, 1999), but test created to measure objective knowledge couldn't give completely objective results (Brucks, 1985). Because of that, subjective knowledge has been more often tested than objective knowledge in studies where consumers' knowledge has been examined.

In other studies of product knowledge and relation to information seeking, authors defined positive relationships which means that knowledgeable consumers seek for more information, and have a better understanding which attributes corresponds the best in appropriate usage situation. Consumers with lower knowledge tend to learn only brand characteristics for usage situations and use same information in retrieval (Cowley & Mitchell, 2003).

The product knowledge effect has been examined in several consumer behavior studies explaining influence of wine knowledge in decision making process. Many of these studies indicate an existing relationship between wine knowledge, and specific product attributes, or wine knowledge and product information search.

In the study of Australian wine choice behavior, respondents had an opportunity to rate themselves about how much they know about wine. The results show that consumers with perceived higher than average wine knowledge purchase more wine per month, than consumers with below average knowledge. In addition, they searched for more product information when making a choice, such as reading wine books, magazines, newspapers, or using cellar door information. Hence, consumers with average and higher subjective knowledge used greater number of attributes (Rasmussen & Lockshin, 1999), which means the higher the wine knowledge, the better combination of product attributes is used (Perrouty, d'Hauteville, & Lockshin, 2006). In addition to price and previous taste of wine, respondents with higher knowledge considered region, brand, and variety of wine as important attributes, as well. Furthermore, results from European wine survey argued that wine "expert" consumers used different attributes with different wine brands (Perrouty, d'Hauteville, & Lockshin, 2006). Furthermore, other Australian study supported these findings and showed very important meaning of prior knowledge in defining segments on the wine market. Consumers with more prior knowledge were consuming wine more frequently, and used variety and brand cue to purchase a wine, whilst those with less prior knowledge were consuming wine less frequently, and focused mostly on price attribute (Batt & Dean, 2000). According to Orth (2002), Czech wine consumers with lower knowledge, and those more convenient buyers used medals or awards information as the most appropriate, and the fastest indicator when purchasing wine. Other reason for using this product attribute is to identify wines that are good value for money (Orth U., 2002).

However, wine consumers in Australia are perceived as consumers with greater objective knowledge, than those from other nations such as New Zealand, USA and UK, according to Forbes, Cohen and Dean (2008). They reveal a positive relationship between objective and subjective knowledge, as well as between familiarity and objective knowledge. This means that individuals' perceptions of wine knowledge positively correspond to their actual knowledge of wine. In addition, statistically significant results proved that objective knowledge is associated with gender and education, and partially with the store choice. Overall, they suggested that global wine market segmentation could be completed by wine knowledge (Forbes, Cohen, & Dean, 2008). According to previous research, these findings would not be supported by Veale and Quester (2007). They developed a test as a specific measure to evaluate consumer levels of objective knowledge for two product class, such as wine and cheese. The study described adult Australian consumers as less knowledgeable about wine, with overestimated knowledge levels. Therefore, the results between measured objective knowledge, and self-assessed test which measure subjective knowledge were significantly different (Veale & Quester, 2007).

Furthermore, authors Mitchell and Hall (2001) explored wine lifestyles in New Zealand using different indicators, with wine knowledge being one of them. They proved significant differences between three types of consumers' wine knowledge, such as advanced knowledge (international wine knowledge including wine courses), intermediate knowledge (possibility to recognize different wine styles), and basic knowledge (to know the names of wine styles, but no differences among them). A positive relationship is found between participation in wine club activities and wine knowledge, which means that a participation in wine club activities will increase with the increase in wine knowledge. In addition, consumers with advanced wine knowledge have more interest in wine, than consumers with intermediate and basic wine knowledge, based on the frequency of wine club activities. No significant results were found between the purchasing places (supermarkets and liquor stores), and wine knowledge, but there are some exceptions in wine purchases from restaurants, where consumers with advanced knowledge preferred mostly new wines (Mitchell & Hall, 2001).

Based on these literature reviews and empirical findings, is not possible to conceptualize product knowledge as a general construct, but we have to classify it into specific groups of product knowledge (relevant to an interest of study). Consequently, researchers will be able to define proper measurement method for each group, whether it is subjective, objective, or other knowledge. However, consumer product knowledge is indispensable when it comes to purchase decisions and consumer behavior in general. Moreover, product knowledge is likely to be linked with product involvement in some cases, which creates a common contribution to the study. More of this is explained in the following section.

#### 2.3.3 Product Involvement and Consumer Behavior

According to Antil (1984), consumer behavior is defined as "perceived personal importance" of the product (brand), or services. However, involvement has a very important role in consumer research, where it represents the level of a person's perceived significance and interest of the product, based on individual needs and values caused by different stimuli within a particular situation (Antil, 1984; Blackwell, Miniard, & Engel, 2001, p. 91; Solomon, Bamossy, Askegaard, & Hogg, 2006, p. 105). Marketers are most focused on understanding product involvement which explains consumer's level of interest in a specific product (Solomon et al., 2006, p. 106). The degree of involvement can be identified in accordance with how important the product or service is to consumers. Thus, the more consumers have an interest in products, the more motivated they are to be involved in the decision (Blackwell, Miniard, & Engel, 2001, p. 91). The most important triggers of involvement are intrinsic personal characteristics such as needs, values, and self-concept that activate the process upon different circumstances (Celsi & Olson, 1988).

Based on Blackwell et al and Bloch and Richins (1983), the degree of involvement is determined by three factors, such as: personal, product, and situational (instrumental) factors that influence consumers' purchasing decision. Hence, these factors drive different levels of involvement or response to products, advertising, and purchase decisions (Zaichkowsky, Measuring the linvolvement Construct, 1985). Personal factors have the greatest impact on involvement, where outcomes of the decision directly affect the person's image. Consumers mostly care about their own benefits, and they are selforiented. This places special attention to which products they purchase, but at the same time it increases involvement with a product. On the other hand, product factors can be involved depending on a certain degree of perceived risk by consumer. For instance, consumers with greater perceived risk may become highly involved with purchase of the product. Furthermore, the degree of involvement can vary in different situations, or usage occasions. Therefore, situational factors can have strong impact on involvement, but often as a temporary effect, decreasing after a purchase is done. In addition, social pressures can increase involvement in certain situations, and influence purchasing decisions, as well (Blackwell, Miniard, & Engel, 2001, pp. 91-93).

Furthermore, Solomon et al. (2006) conceptualize components of involvement using the same factors to determine levels of involvement, as well as consumers' motivation to search information. In addition, they argued that consumers will not pay attention and be interested in the given product information, if they think it is not relevant to satisfy their needs. In contrast, consumers will be motivated to search for product information, only if by doing that they can achieve their goals. Therefore, the type of information consumers utilize depends on the degree of involvement. The greater effect in decision process occurs when the information is connected with a consumer's prior knowledge, which makes consumer deeply involved with a product (Solomon, Bamossy, Askegaard, & Hogg, 2006, pp. 105, 106).

However, important insights for understanding product involvement are provided by Peter and Olson (2010). They stated that involvement with a product has cognitive, but also affective impacts on consumer behavior. Concerning cognitive effects, there is a product involvement when consumers use prior knowledge about product attributes, and think subjectively about consequences and values produced by consuming the product. From affective point of view, consumers with higher product involvement may have stronger emotions and feelings toward the product (Peter & Olson, 2010; Hansen, 2005). The degree of involvement in decision making process is defined by two types of "means-end knowledge", such as product knowledge, and self-knowledge that are activated in a specific situation, as shown in Figure 9. Therefore, product knowledge (knowledge about product attributes) only combined with self-knowledge (personal consequences and values) will lead to a greater involvement with the product (Peter & Olson, 2010, pp. 84-86). For instance, consumers who consider that product attributes are not related to any relevant consequences, either functional or personal, will often experience no involvement with the product.

Furthermore, Peter and Olson introduced "A basic model of consumer product involvement", which can be seen in Figure 9, where they confirmed all the relations already explained earlier. They also presented two types of influencing factors of product involvement, such as intrinsic and situational self-relevance. Intrinsic factors are related to past experience with a product, including personal emotions and feelings. In the model, intrinsic self-relevance is a function of consumer (personal needs and values), and product characteristics (product attributes associated with benefits and perceived risk as functional consequences). On the other hand, situational factors are function of product and situational characteristics, which activates environmental influence, as well. For measuring total level of involvement both factors need to be perceived together (Peter & Olson, 2010, pp. 86-90).

Figure 9. A Basic Model of Consumer Product Behavior



Source: Peter, J. P.; Olson, J.C., Consumer Behavior and Marketing Strategy (9th ed.), 2010, p. 88.

In terms of wine, involvement has been seen as an extremely important factor in decisionmaking process. In some cases involvement is strongly connected with knowledge, where both influenced the choice criteria of product attributes (Famularo, Bruwer, & Li, 2010). Authors Brunner and Siegrist (2011) identified wine consumer segments based on involvement, lifestyle, and purchase of wine. One of the main segments was: the involved and knowledgeable wine consumers. The results showed that highly involved and knowledgeable consumers care less about price (Hollebeek, Jaeger, Brodie, & Balemi, 2007), but they considered vintage, origin, and grape variety as the most important attributes. Specifically, highly involved consumers enjoy drinking wine, they are interested in learning about wines, spend more time thinking about their choices (Lockshin, Spawton, & Macintosh, 1997), and try new brands, much more than consumers in other segments (Brunner & Siegrist, 2011). Other research explains product involvement as one of the major drivers of wine brand choice (Orth U. R., 2005).

The relationship between involvement and product attributes has been significant, as seen in many studies. Depending on the degree of involvement, importance of product attributes varies among consumers (Quester & Smart, 1996). According to the study, Quester and Smart (1996) couldn't prove the importance of price cue between consumers with high and low involvement, because the results were not statistically significant (Quester & Smart, 1996). Zaichkowsky (1988) argued that the price cue was not relevant indicator to predict the level of product involvement (Zaichkowsky, 1988). In addition, the author stated that consumers with high involvement in red wine category utilized less price cue then consumers with low involvement. However, the importance of region of origin and wine style was found to differ significantly between the highly and lowly involved consumers (Quester & Smart, 1996). Similar results were found by Hollebeek et al. (2007), where the region of origin cue was used more by highly involved consumers (Hollebeek et al., 2007). In addition, the unexpected results showed that the importance of grape variety was higher with less involved consumers (Quester & Smart, 1996).

Furthermore, a theoretical construct of involvement was used to identify the retail consumer's segments, analysing three different types of involvement such as product, brand, and purchasing involvement. The authors defined five very specific clusters that correspond to a particular shopper behavior. Each cluster consists of a different combination of all three types of involvement form high-volume to low-volume consumers. The major differences in consumer behavior were reflected through the types of stores (special or discount), and price range of purchased wine, where highly involved consumers were buying expensive wines in the special wine stores, more often than low-volume consumers (Lockshin, Spawton, & Macintosh, 1997). Related to Lockshin, Quester and Spawton (2001), consumers who have high product involvement were mostly interested and motivated by the knowledge about different wine brands, followed by store trust and satisfaction. On the other hand, less involved consumers were more deal and price-oriented, with trust in the salesperson (Lockshin, Quester, & Spawton, 2001).

Related to these findings and theoretical reviews, product involvement is encouraged by different kind of knowledge. This explains an appearance of positive correlation between these two variables and product attributes in various studies, which corresponds to indications in this study.

# 2.4 The Impact of External Factors on Consumer Behavior

In addition to internal factors or individual characteristics, consumer behavior is influenced also by external factors and determinants, representing various independent variables, which shape the consumer decision-making process (Blackwell, Miniard, & Engel, 2001, p. 84). All these variables fall into the category of environmental influences, such as physical (situational aspects in which consumer behavior occurs), and social (social interactions between people) environment (Peter & Olson, 2010, p. 254). In order to make an analysis of these environmental factors, the whole process needs to be studied from the viewpoint of a specific situation.

According to Peter and Olson (2010), "a situation is defined by a person who is acting in an environment for some purpose", and has clear goals determining a situational course of action. In this way, a situation represents "a sequence of goal-directed behaviors", together with consumers' cognitive, and affective responses in different environments (Peter & Olson, 2010, p. 260). Furthermore, a situation is defined as momentary encounter with various elements of the environment which are available to the consumer at specific point in time and space (Belk, 1975). Thus, Belk suggested five groups of situational characteristics such as: physical surroundings (location, weather, decor, sounds, etc.), social surroundings (persons' presents, their roles and interactions), temporal perspective (time of day, season or year), task definition (purpose of purchase, such as a wedding gift), and antecedent sates (momentary moods or conditions).

However, a situation can be more or less complex, with several goals and different consumer behavior, depending on the occasion as well as consumer's needs. According to Blackwell et al. (2001) situation behaviors will change as situations change. Although, consumers experience the same objective environment, they still diverse in brand preferences influenced by different motivating conditions (Yang, Allenby, & Fennell, 2002). Therefore, brand preferences tend to change across different usage occasions. For example, Parsons (2002) found out that consumers are often more interested in purchasing brands with greater benefits when purchasing a gift (Parsons, 2002). Other authors argued that a product value embodied in consumption depends on the particular context in which the product is consumed (Lee & Steckel, 1999). Furthermore, Lee and Steckel (1999) stated that every context has a unique preference structure in which benefits of consumption are context dependent. Usually, these changes are unpredictable, thus situational variables are treated separately as a specific external factor. But sometimes when the situation repeats again, consumers' behavioural actions became influenced directly by the memory of previous knowledge and experience in such a situation. Therefore, consumers simply give the same interpretation for the commonly related situations, where the behavior is similar as well (Peter & Olson, 2010; Desai & Hoyer, 2000).

In the literature several studies used usage occasions to examine changes in consumer behavior with respect to wine. Sometimes consumers are not completely sure what they want or need. Actually they doubt in their ability to make a right choice of wine for a specific setting, also they are afraid of social rejection, in case of choosing a wrong bottle of wine (Olsen, Thomson, & Clarke, 2003). The authors, Hall, Lockshin, O'Mahony and Barry (2001) used "Means-end chain" methodology to create factors that influence decision-making for the purchase of wine in five different usage situations, such as: intimate dinner, dinner with friends, dinner with family, business-related dinner, and outdoor consumption (parties, picnic or other celebrations). This model has a cognitive character which evaluates important silent values of a consumer that are connected to specific extrinsic, and intrinsic product attributes of wine. The most important attributes selected by consumers were taste, price, and type of wine (Hall, Lockshin, & O'Mahony, 2001). Price was viewed as important for all of the five usage occasions, especially for business-related dinners. Other extrinsic attributes were the brand, also most prevalent in business-related occasions, and a label favourable for parties. Among the intrinsic attributes, taste was the most important in all situations, particularly for an intimate dinner. The second most important was type of wine, frequently used for business-related situations. On the other hand, alcohol has a low importance across all the situations except for dinner with family and celebrations (Hall et al., 2001). Furthermore, the authors analysed the consequences or important reasons of wine consumption. The most important consequence was quality, followed by socializing consequences, food matching, impressing others, and achieving value for money. The results placed the quality of wine as the most influential for all occasions, specifically for business-related consumption, together with 'to impress others' consequence. Most frequent consequences for dinner with friends and family were socializing, quality, and food matching. In addition, the study highlights the importance of different values in various occasions. For instance, selfrespect was important for business accessions, self-fulfilment for an intimate dinner, and fun and enjoyment in life for celebrations. In this study, the authors argued that usage occasions are crucial for the selection and overall consumption of wine (Hall et al., 2001).

Other study examined variations in brand choice across three different usage occasions, such as self-consumption, hosting friends, and a gift-giving. The author describes six benefits of wine consumption, where four of them were changing depending on a specific occasion. The most important were quality and social benefits, particularly for 'host' and a 'gift' situation, whilst value for money and emotional benefits were more favorable for the self-consumption (Orth U. R., 2005). Furthermore, Olsen, Thomson and Clarke (2003) examined consumer self-confidence in three different purchasing situations, such as purchasing wine in a restaurant, as a gift, and home consumption. The results found that consumers prefer to stay with a known brand for a business dinner, there is a little more willingness to purchase new brand for a gift, and most likely to try a new wine for enjoyment at home (Olsen et al., 2003).

In the study of Chinese wine consumers, price is an important indicator when selecting wine in different usage occasions. Consumers tend to purchase less expensive wines for daily use occasions, whilst more expensive wines mostly for gift purposes. Moreover, the results showed greater interest in purchasing French wines for a gift-giving instead of domestic wine brands (Yu, Sun, Goodman, Chen, & Ma, 2009). Similar results were found by Liu and Murphy (2007), that indicated that Chinese consumers prefer drinking red wine rather than other spirits only in special occasions, for example New Year and holidays. Furthermore, Chinese prefer purchasing less expensive wines for private occasions, and more expensive wines for public occasions. Usually they use foreign wines, mostly French to impress present guests (Liu & Murphy, 2007).

Ritchie (2007) used a sample of UK consumers to examine the consumption behaviour, and social interactions among consumers. There are three ways consumers use wine: through the purchase, gift-giving, and consumption. The author stated that social interactions with wine depend upon different usage occasions and environment. Findings showed that wine is viewed as a good present, especially a business gift, or a "Thank you" present. Based on the perception of a recipient's wine knowledge, consumers often "traded up" to different price levels, for personal gifts. In addition, participants agreed that the more an occasion is significant, the more they feel stressed when purchasing wine (Ritchie, 2007). Therefore, these results argued that the consumer behavior varies within specific context in terms of wine, as well as depends on consumption occasions.

According to these findings and literature reviews, external factors, particularly situational factors, are indispensable to be taken in consideration when it comes to buying decisions, and consumer behavior. They drive different motivation within specific settings of purchase, and try to alleviate the fear of social rejection by not choosing the right bottle of wine. At this time, specific product attributes (extrinsic and intrinsic) such as: price, taste, type of wine, brand, etc. became crucial for satisfying expectations upon certain occasion.

# 2.5 Consumer Decision Process

Every day consumers are involved in buying and using certain products, as a result of previous decisions they have made. In order to understand consumer behaviour, marketers must know how people make their buying decisions. Figure 10 represents a model of the consumer decision-making process, which explains seven steps of decision making, including all activities that occur before, during, and after the purchase (Blackwell, Miniard, & Engel, 2001, p. 67). However, consumers don't always have to pass through all seven stages, for instance if they purchase the same product, or brand on a daily basis, they will directly go straight to the product and buy it (Kotler, Keller, Brady, & Goodman, 2009, p. 247). Moreover, the model presents different internal and external factors that influence consumer thoughts and actions within each step. Therefore, the model helps marketers to discover and interpret consumer behavior, buying or changing decisions (Bleckwell et al., 2001, p. 71).



Figure 10. The Consumer Decision Process (CDP) Model<sup>3</sup>

Source: Blackwell, R. D.; Miniard, P. W.; Engel, J. F., Consumer Behavior (9th ed.), 2001, p. 71.

**Need Recognition** is the starting point of the process where a specific consumer's need or problem occurs and needs to be solved. People usually buy products when they are sure that these products can satisfy their needs and are worth more than the actual cost of

<sup>&</sup>lt;sup>3</sup> See Appendix B

buying (Blackwell et al., 2001, p. 72). The actual problem or need can be initiated by internal or external stimuli, which give marketers an opportunity to develop marketing strategies that will create or stimulate consumers to a faster problem recognition (Kotler, Keller, Brady, & Goodman, 2009, p. 247). In addition, there are two types of recognition stage, such as need recognition (needs and problems on the same or lower level), and opportunity recognition (needs and problems on the same or higher level) (Solomon, Bamossy, Askegaard, & Hogg, 2006, p. 263). In addition, moving through different life-stages, consumers' needs and behavior are changing, as well as their purchasing decisions (Blackwell et al., 2001, p. 73). Therefore, marketers must constantly monitor consumers' moves.

**Information Search** is the second step in the process. After defining the problem, consumers begin to search for information using internal or external sources. Consumers may use their prior knowledge stored in memory from previous experience, or they can use external information collected from family, friends, ads, newspapers, etc. (Blackwell et al., 2001, p. 73). Simply, through this stage consumers become more sensuous to an external stimuli around them, than before. In addition to the market-oriented information such as advertising, salespersons and websites, consumers often use nonmarket-oriented information or word-of-mouth, where marketers have little or no control. Also important part of the process is consumer information processing, which include exposure (activation of the senses), attention (information interest), comprehension (understanding the message), acceptance (reaction or respond to the message), and retention (information stored in memory) (Blackwell et al., 2001, pp. 74-76).

**Pre-purchase evaluation** of alternatives is the next stage where consumers spend time evaluating alternative options. Before making the final decision they narrow the number of alternatives, based on their previous knowledge, or comparing product attributes they consider important. Therefore, through the evaluation process consumers satisfy their needs and also benefit from the best product solution (Kotler, Keller, Brady, & Goodman, 2009, p. 249). The most influential attributes to make a change upon products or brand choices are price, size, quantity, and quality. For instance, if a price of the consumer's preferred brand is increased, the consumer will evaluate whether such a change is still beneficial or not. Any indications of uncertainty can decrease the possibility to purchase the product (Blackwell et al., 2001, pp. 77-78).

**Purchase decision** comes upon the consumer's selection of a preferred brand. However, the actual purchase decision can be sometimes changed, when the consumer is about to purchase the product. The changes can occur during the purchase, influenced by external factors such are promotions in the stores, price discounts, special day offers, opinion of a salesperson, store location, etc. (Blackwell et al., 2001, p. 79). However, these factors, classified as attitudes of others and unanticipated situational factors (different types of perceived risk), can convince the consumer that other brand is better than the selected

(preferred) one. Therefore, unexpected changes may occur between purchase intention, and actual purchase of a product (Kotler, Keller, Brady, & Goodman, 2009, pp. 252-253).

**Consumption** occurs after the purchase and represents possession and usage of a product. Consumer satisfaction with the product depends on how consumers use or maintain the product. In addition, consumers' satisfaction, or dissatisfaction with the product determines whether the product will be purchased again in the future. How consumers use products, can also indicate the product duration, and need for making another purchase (Blackwell et al., 2001, p. 80).

**Post-consumption evaluation** is the stage where consumers, who have already experience with a product by it consumption, build an attitude towards the same product. Based on the expectations consumers had before, or during a purchase, their attitude about products can change. If a consumer's expectations meet the actual performance of a product, the consumer will be satisfied with a product. If a consumer's expectations do not meet perceived performance, the consumer will feel disappointed. However, if the performance exceeds consumer's expectations, the consumer will be delighted (Kotler et al., 2009, p. 253). The outcomes of consumption are very important indicators to predict further consumer behavior. Consumer's experiences are stored in memory, which means they will be used again in future decisions. Therefore, consumer's feelings about a product will determine whether a consumer will buy the same product again or not. In addition, satisfaction or dissatisfaction has a return effect on the pre-purchase stage and evaluation of alternatives in decision process (Blackwell et al., 2001, p. 80).

**Divestment** is the last stage in the consumer decision-making process. After consumers use up a product, they can decide what to do with it. Available options for divestment are disposal, recycling, or reselling a product. However, depending on the consumers' environmental concern, they choose one of these divestment options (Blackwell et al., 2001, p. 82).

After the explanations of the CDP model and seven steps of decision making, we finally came up with an answer on how people make their buying decisions. However, the following two subsections are more focused on decision making process in terms of wine and wine consumers' preferences, as well as product attributes and their important contributions to purchase decision.

## 2.5.1 Wine Consumer Decision Making Process

There are numbers of studies explaining the major key factors for the decision making process in terms of wine, especially focusing on wine consumers' purchasing decisions, and their preferences towards wine. Wine is a very specific and unique product category which mostly differentiates from other product categories. Therefore, consumers' wine choice process is quite different compared to lots of other products. This is a result of the
highly complex nature of wine as a product category (Hollebeek, Jaeger, Brodie, & Balemi, 2007).

Researchers and marketers consider that understanding consumers' wine purchasing decisions is a problematic, but very important subject to analyse. In addition, consumers have a difficult job to choose a proper wine due to number of product attributes such as price, brand, variety, region, etc. Unlike other food and beverage product categories, taste of wine is very sensitive and prone to changes, depending on the combination of other attributes. For instance, the specific vintage cue can make the taste of wine completely different, even if the brand or other attributes remain the same. Therefore, wine brands on the shelf are not easily substitutable between each other. Producers and wine scientists devote special attention to the taste of wine as a key creation of wine quality as well as consumers' choice (Lockshin, Jarvis, d'Hauteville, & Perrouty, 2006; Hollebeek et al., 2007).

Another difficulty when choosing wine is that consumers have a wide range of different varieties of wine, each bearing specific information and attributes. As market is growing, an increase of wine ranges simultaneously expands the selection of wines in retail stores. In addition, increasing competition, or large number of wine brands available on shelf, make marketers more careful and involved with the problem (Gluckman, 1990). In addition, consumers can rarely taste the wine in stores before making a purchase. Therefore, consumers are not able to predict the taste of wine as well. Nevertheless, there are always exceptions among consumers with respect to their knowledge and involvement with wine. In order to make a decision, consumers often use available information on the labels (Lockshin et al., 2006).

#### 2.5.2 Product Attributes and Purchase Decision

Product attributes are viewed as very important elements of marketing researches as well as marketing strategies. In addition, product attributes are indicators of fundamental perceptual dimension of products that can further explain consumers' perceptions and behavior (Grapentine, 1995). The most important component of the consumer decision making process is evaluating a number of alternatives of product attributes, based on which the decision is made (Grunert, 1986). Combining different range of attributes, marketers make products more attractive to consumers. Therefore, they are interested in knowing consumers' evaluating process during purchase decisions and identifying the most important attributes. Evaluation and knowledge about product attributes are the basis of consumers' purchase decision (Jamal & Goode, 2001).

Moreover, consumers usually have knowledge about different types of product attributes, based on previous experience with a product. However, knowledge about attributes is acquired through cognitive as well as affective evaluation of each attribute (Peter & Olson, 2010, p. 71). Specific attributes represent tangible (physical) characteristics of a product,

whilst abstract attributes are intangible characteristics of a product based on a more subjective perspective. Objective or physical characteristics represent price, brand, and country of origin, while subjective properties include quality, comfort, taste, and other experienced cues (Grapentine, 1995; Jamal & Goode, 2001; Peter & Olson, 2010; Wu, Day, & MacKay, 1988).

In other studies product attributes are divided into intrinsic and extrinsic product evaluation criteria. Intrinsic criteria represent attributes which are physical parts of a product, such as flavor, color, or aroma. External product attributes are extrinsic characteristics such as price, store image, or country of origin (Forney, Pelton, Caton, & Rabolt, 1999; Zeithaml, 1988). However, evaluating importance of intrinsic and extrinsic cues during the consumer purchase decision-making process, researchers found out that intrinsic attributes have a stronger effect on perceived product quality than extrinsic attributes (Szybillo& Jacoby, 1974; Grunert, 1986; Forney et al., 1999). But the strength varies upon different levels of knowledge and involvement with a specific product, as well as upon different product categories and situations (Zeithaml, 1988). It means that intrinsic attributes are not assessable in every purchase situation. For instance, if a consumer is not familiar with intrinsic cues of a product, he or she will not be able to use it until consumption, but at this point extrinsic cues will be used instead. Also, extrinsic cues are more preferable when intrinsic cues are unknown (Nebenzahl, Jaffe, & Lampert, 1997). This is critical in the situation when purchasing a wine. In addition, consumers cannot evaluate intrinsic attributes at the time of purchase and because of that extrinsic attributes are rated as the most important in terms of wine purchase (Batt & Dean, 2000; Rasmussen & Lockshin, 1999; Keown & Casey, 1995).

Furthermore, consumers perceived certain level of risk during purchase decisions. In order to reduce the risk, consumers have evaluated specific attributes perceived as indicators to define a value of other unknown attributes. These attributes are known as heuristic, or exploratory information and usually indicate price, as one of the most used heuristics cues. Particularly in the situation when the product quality is not easy to define, consumers use heuristic cues such as price, brands, reputation, or awards to select their best choices (Szybillo & Jacoby, 1974; Grunert, 1986; Hansen, 2005; Orth U., 2002).

In accordance with wine articles that examined consumers' decision making process as well as influential factors of purchase decisions, the most frequently used attribute by consumers is the price cue (Batt & Dean, 2000; Rasmussen & Lockshin, 1999, Hall, Lockshin, & O'Mahony, 2001; Yu, Sun, Goodman, Chen, & Ma, 2009; Bruwer & Buller, 2012; Menezes, Candido, & Angelico, 2010; Geraghty, 2010; McCutcheon, Bruwer, & Li, 2009). Table 3 gives an overview of product attributes in wine decision making process. By some of them, price is used to perceive quality of wine (Quester & Smart, 1996), but also some consumers are influenced by gender, look for promotion or discounted price (Forbes S. L., 2012) when purchasing a bottle of wine. Atkin and Thach (2012) argued that choices of wine attributes depend on different age groups, as well. For example, older

population pay more attention to price and region than younger, whilst millennials are more oriented to awards, brand, label style and alcohol (Atkin & Thach, 2012). However, a study from Turkey showed different results, where consumers preferred to use more attributes such as taste and aroma rather than price (Gunay & Baker, 2011).

Author	Title	Major Findings
Cohen, d'Hauteville, & Sirieix, 2009	A cross-cultural comparison of choice criteria for wine in restaurants	Match with food and previously tasted were the most important attributes in France, UK, and Australia, when choosing wine in restaurants. Alcohol %, suggestions on the menu, and available in half bottles were the least important attributes in all three countries.
Yu, Sun, Goodman, Chen, & Ma, 2009	Chinese choices : A survey of wine consumers in Beijing	Chinese consumers were more sensitive to price and country of origin, where brand and country of origin were the most influential attributes. Awards, medals, and vintage were less influential in wine purchasing decisions.
Bernabeu, Diaz, Olivas, & Olmeda, 2012	Consumer preferences for wine applying best- worst scaling: A Spanish case study	Already tasted and region of origin were important wine attributes, followed by price and recommendations by friends and relatives. The least important attributes were bottle and label design, brand name, and alcohol content.
Bruwer & Buller, 2012	Country of origin (COO) brand preferences and associated knowledge levels of Japanese wine consumers	Taste, variety, and price are viewed as key wine attributes for purchasing wine, followed by recommendations of other people.
Atkin & Thach, 2012	Millennial wine consumers: Risk perception and information search	Elders considered region of origin and price as very important cues, whilst Millennials were more interested in alcohol content, medals or awards and label style. Brand was the most important wine attribute to both groups.
Menezes, Candido, & Angelico, 2010	Opinions and attitudes of wine consumers utilizing focus group Region of origin as	In three focus group sessions, attributes such as: brand, price, and origin of wine were most observed factors by wine consumers within each group.
Famularo, Bruwer, & Li, 2010	choice factor: wine knowledge and wine tourism involvement influence	Positive impact of region of origin cue, as one of the main wine attributes for decision making process.
Gunay & Baker, 2011	The factors influencing consumers' behavior on wine consumption in the Turkish wine market	Taste and aroma were more important cues, than price and promotion for older wine consumers, especially those with more experience and higher incomes.
Lockshin & Cohen, 2011	Using product and retail choice attributes for cross-national segmentation	Identified three different segments of wine market in which consumers choose wine based on specific attributes within each segment, such as: cognitive-based (label information, grape variety, origin and brand), assurance-based (previously tasted or experience and recommendations), and in-store promotion (shelf promotion and packaging).
Mann, Ferjani, & Reissig, 2012	What matters to consumers of organic wine?	Price and country of origin were the most important attributes in wine decision making. In addition, consumers rated the organic cue as more important than the color of wine.
Quester & Smart, 1998	The influence of consumption situation and product involvement over consumers' use of product attribute	Price and region of origin were crucial to decision process, followed by vintage, wine variety, color, and brand.

Table 3. Overview of Product Attributes in Wine Decision Making Process

## "(continued)"

Author	Title	Major Findings
Geraghty, 2010	Wine consumer Behavior: An Irish wine market analysis	Price, style, and region of origin are viewed as the most important product attributes by Irish consumers when choosing wine.
Quester & Smart, 1996	Product involvement in consumer wine purchases: Its demographics determinants and influence on choice attributes	Heuristic cue, such as price, was used as important choice criteria, especially to perceive wine quality.
Rasmussen & Lockshin, 1999	Wine choice behavior: The effect of regional branding	Price and previously tasted wines were important characteristics, followed by region, brand, variety, and label.
Thomas & Pickering, 2003	The importance of wine label information	Company label (more front than back label), brand, and awards (medals or expert opinion) are selected as very important cues by consumers, followed by other characteristics such as grape variety, vintage and region information. In addition, consumers considered image/picture/logo, colors and alcohol level, but with lower ratings.
Keown & Casey, 1995	Purchasing behavior in the Northern Ireland wine market	Country of origin, brand and grape variety were listed as significant factors when selecting wine. They are followed by region of origin, alcohol level, and vintage.
Chaney, 2000	External search effort for wine	Sale or promotion, labels and word of mouth (comments from friends) were the most important attributes, followed by tastings, visits abroad, and wine list.
Hall, Lockshin, & O'Mahony, 2001	Exploring the links between wine choice and dining occasions: Factors of Influence	Taste, price, and type of wine were the most frequently selected attributes when purchasing wine. Brand and label cues were mentioned as well.
McCutcheon, Bruwer, & Li, 2009	Region of origin and its importance among choice factors in the wine-buying decision making of consumers	Region of origin, quality, price, grape variety, and wine style were the most important factors in the wine decision- making process.
Goodman, Lockshin, & Cohen, 2007	Influencers of consumer choice - comparing international markets	Previously tasted cue is the most important attribute, followed by recommendations, grape variety, country of origin and brand name.
Goodman, 2009	An international comparison of retail consumer wine choice	Already tasted and recommendation cues were the key influencers when choosing wine in most markets. But also brand, food matching, origin, and grape variety were highly significant attributes, depending on country of study.
Bruwer, Saliba, & Miller, 2011	Consumer behavior and sensory preference differences: implications for wine product marketing	Taste, aroma, and wine style were more preferred among females, while males preferred vintage cue as important attribute during a wine purchase.
Camillo, 2012	A strategic investigation of the determinants of wine consumption in China	Consumer education, wine activities, channels of communication, taste, country of origin, quality and price were the most influencing factors when buying wine.

Table 3. Overview of Product Attributes in Wine Decision Making Process

However, price is not the only important characteristic when buying wine. In addition to the price cue other influential cues are brand (Keown & Casey, 1995; Menezes et al., 2010; Thomas & Pickering, 2003), and country or region of origin (Yu et al., 2009; Geraghty, 2010; Famularo, Bruwer, & Li, 2010) mostly recognized by consumers. In addition, some authors have indicated previous tasting as one of the most important attribute (Rasmussen & Lockshin, 1999; Hall et al., 2001; Goodman, Lockshin, & Cohen, 2007; Bernabeu, Diaz, Olivas, & Olmeda, 2012). Moreover, product attributes that usually follow price, brand, country of origin, or taste are grape variety, food matching, reputation, awards/medals, and people's recommendations (Goodman et al., 2007; Bruwer & Buller, 2012; Bernabeu et al., 2012; Cohen, d'Hauteville, & Sirieix, 2009). Recently, Mann, Ferjani, and Reissig (2012) have tested the importance of organic attribute, considering wine as a product. Based on the results, the organic attribute was considered more important than color, but less than price and country of origin (Mann, Ferjani, & Reissig, 2012). Furthermore, other interesting findings give advantage to point-of sale, label, and word-of-mouth information, as an external search effort for wine (Chaney, 2000).

According to other researchers, product attributes are also used to develop wine market segments. As wine becomes more desirable and a lifestyle beverage, marketers need better insights into consumer profiles (Bruwer, Li, & Reid, 2002). Lockshin and Cohen (2011), suggested three different segments of wine market in which consumers choose wine, using relative display information and product attributes. Each of the segments is characterized by specific product attributes that further provide and explain consumers' preferences and purchasing decisions. The three segments are: cognitive-based (label, grape variety, country of origin, and brand), assurance-based (recommendations or previous experience/knowledge), and in-store promotion (shelf promotion and packaging) segment (Lockshin & Cohen, 2011).

#### 2.6 The Conceptual Model of Wine Consumer Behavior

This model is created to examine wine consumer behavior, specifically purchasing behaviour, on the Montenegrin wine market. Evaluation of product attributes, their importance and use, consumers' perceptions about domestic wines, differences among consumers based on individual characteristics, knowledge and involvement influences, and the importance of usage occasions, are the basis used for the creation of the conceptual model. Main contributions provided by the model assist in attaining the main goals of the research. In addition, the model includes various factors in order to identify and evaluate their importance as well as the influence on the consumer's wine purchase decision-making and consumer behavior in general.

The background of the overall conceptual model, including main factors as well as hypotheses is supported by the literature already explained in the previous sections.

However, the model is created on three key factors, defined as antecedents of wine purchase choices. These factors represent individual characteristics; usage occasions, and product attributes, shown in Figure 11. Based on the research settings, the factors have different functions in their interrelations, as well as direct or indirect impact on final consumer's decision. In addition, the model explores several hypotheses, made specifically to explain the goals and give insights into better understanding of purchasing behavior. All hypotheses are known and identified in the literature within similar, or different context and product class.

As it can be evidently noticed based on the literature, all the models of purchasing behavior or attribute processing are cognitively-oriented. This means that consumers more logically processed information based on their considerations and learning process (experience, recall or memory). Furthermore, many studies (Keown & Casey, 1995; Goodman, Lockshin, & Cohen, 2007; Batt & Dean, 2000) examined the evaluative criteria and importance of product attributes, including intrinsic and extrinsic cues as well as heuristic cues (price, brand, and country of origin), provided by wine consumers when purchasing wine. Therefore, the rational evaluation of product attributes is considered a highly influential factor, representing a dependent variable, whilst other two factors such as personal characteristics and usage occasions are independent variables, in the conceptual model, shown in Figure 11. In addition, the hypotheses are used to determine the significance of the existing relationship between the dependent and independent variables in the model.

Moreover, the main thesis of this study is that consumer behavior on the Montenegrin wine market is influenced by personal characteristics, product attributes, and usage occasions. The following hypotheses introduced in the study are raised based on this thesis.



Figure 11. The Conceptual Model of Wine Consumer Behavior

According to the first individual factor or personal characteristics, the structure is made of socio-demographic characteristics, product knowledge and involvement. The literature reported significant importance and moderate effect of demographic characteristics among the different use of product attributes. Demographics are used in various studies, as well as wine related studies and the most frequent represent gender, age, income and education, as stated by Pol (1991). This study includes all of these characteristics to define the relationship with evaluation of product attributes. Furthermore, from the recently taken study by Bruwer, Saliba, and Miller (2011), a significant relation was found between gender and product attributes. The study reported that females are different in attribute choices comparing to males. For instance, taste, aroma, and wine style were more preferred by females, whilst males considered vintage cue as more important when purchasing wine. Also Forbes (2012) stated that gender influenced consumer's choice of product attributes, such as region of origin and discount/promotion price. Moreover, consumer education level was classified as one the most important demographic characteristics, as well. Significant results were found by Camillo (2012), where consumer education level was the most influential factor in purchase decision. In this study the following hypotheses tend to identify influence of demographic characteristics on wine product attributes:

**H1a:** Females will take into consideration more product attributes than males in the decision-making process.

**H1b:** In the decision making process, consumers with higher education level will take into consideration more product attributes than consumers with lower education level.

The relationship between wine knowledge and product attributes is examined further in the study. Based on the literature, consumer knowledge is defined to be highly significant when choosing a wine. Several studies suggested country of origin as being the most important in terms of greater wine knowledge (Rasmussen & Lockshin, 1999; Perrouty, d'Hauteville, & Lockshin, 2006), whilst others viewed brand, awards, previous taste, and variety to be better evaluated in such case (Orth U., 2002; Thomas & Pickering, 2003; Perrouty et al., 2006). However, evaluating importance of intrinsic and extrinsic cues during the purchase decision process, intrinsic attributes have had a stronger effect on perceived product quality than extrinsic attributes (Szybillo& Jacoby, 1974; Grunert, 1986; Forney et al., 1999), but consumers cannot always evaluate intrinsic attributes when making a purchase, and because of that extrinsic attributes are rated as being most important in terms of wine purchase (Batt& Dean, 2000; Rasmussen & Lockshin, 1999; Keown & Casey, 1995). Thus, different levels of wine knowledge determine the strength of relationship with product attributes (Zeithaml, 1988). Therefore, this study seeks to examine such relationship by following hypotheses:

**H2a:** If the consumers' knowledge of wine (subjective/objective) increases, the total numbers of product attributes used during the purchase decision process will also increase.

**H2b:** Consumers with a high level of wine knowledge (subjective/objective) will utilize more intrinsic product attributes, than extrinsic product attributes in the decision-making process.

**H2c:** Consumers with high level of wine knowledge (subjective/objective) will use country of origin in the decision-making process, more than consumers with low level of wine knowledge.

Moreover, product involvement is considered to have high influence on the consumers' purchase decisions. Particularly, the level of involvement is defined to moderate the evaluation criteria and importance of product attributes (Zaichkowsky, 1988; Quester & Smart, 1996). Thus, the number of product attributes varies across different levels of involvement. Similarly to the wine knowledge, the importance of product attributes also varies upon different levels of involvement with a specific product, as well as upon different product categories and situations (Zeithaml, 1988). Hence, this study tends to examine the relationship between the level of involvement, and the number of product attributes, in order to find out whether there is a positive or negative correlation among them. The hypothesis is as follows:

**H3:** If the consumers' product involvement increases, the total number of product attributes used during the decision making process will also increase.

Previous literature explored the effect on product attributes and wine choices in different usage occasions. Depending on the situation, consumers evaluate different product attributes when purchasing wine. For instance, taste, price, type of wine, or brand cue are the most important attributes within the specific occasions, such as: intimate dinner, dinner with friends, dinner with family, business-related dinner, and outdoor consumption (Hall, Lockshin, & O'Mahony, 2001). In addition, the study in China reported price and country of origin as highly evaluated, especially for gift-related situations (Yu, Sun, Goodman, Chen, & Ma, 2009). Furthermore, the Chinese consumers considered a special attribute for a special situation, such as drinking red wine only for a New Year or other holiday (Liu & Murphy, 2007). Thus, the number and importance of product attributes will vary in different situations:

**H4:** Consuming wine in higher variety of occasions implies consideration of higher number of attributes.

Numerous studies in the literature examined the influence of product attributes in the decision-making process, regardless of whether the issue is of wine or other products. It can be seen in Table 3 that the price cue has been evaluated as the most common product attribute with respect to wine. In addition to the frequency of usage, the price is rated as the most important attribute, as well. Therefore, this study tends to examine whether the price cue would be the most important attribute for Montenegrin consumers:

**H5:** Consumers will evaluate the price cue as the most important product attribute among the other product attributes in the decision making process.

This section explained the conceptual model and hypothesis that have been developed based on previous examinations of the literature documented in this chapter. The following section presents the research method created to test these hypothesis and main research question.

## **3 RESEARCH METHOD FOR CONSUMER BEHAVIOR ON THE MONTENEGRIN WINE MARKET**

This chapter explains the research method employed to test the conceptual model of wine consumer behavior. There are six main sections within the chapter that provide more details on the research method. At the beginning, there is an explanation of methodological approaches, focusing more on quantitative research. In addition, the chapter provides more information about the research and questionnaire design, which are used for data collection. Furthermore, there is a section with an attention on ethical considerations. All of the used techniques and selective approaches are in accordance with methodology literature.

#### 3.1 Methodological Approaches

There are two general approaches to doing research called inductive and deductive research approaches, and according to Neuman (1994, p. 63) most research emphasizes one of these approaches over the other. The approaches are separated by the direction they take in conducting research, and thus how they frame the research process. On the one hand, inductive research starts with specific observations and moves towards general theories (Van Biljon, Suppliers networks re-engineering by automotive assemblers in the province of the Eastern Cape, 1999). Conversely, deductive research starts with general ideas and tests them by looking at specific observations (Jackson, 1995). It is thus obvious that the two approaches take very different directions, and because of this diversity it is crucial for researchers to choose the right research framework, as this choice will influence the research process. Hence, this research is structured according to a deductive approach. This framework is used and significant time is devoted early in the research process to developing research questions and hypothesis, and planning the study details.

In order to describe the relationship between distinct variables, the research, within the social sciences, applies two contrasting techniques: qualitative and quantitative method. These techniques contrast each other as the information obtained by the first method is transcribed into numbers, while information obtained by the second method is transcribed into words (Miles & Huberman, 1994, p. 52). Another factor distinguishing the methods is that the qualitative method typically gathers large quantities of information and use a low number of respondents, while the quantitative method does the opposite. Some research

studies incorporate elements of both the established research methods, and thus take advantage of several research approaches. This type of research is commonly referred to as multi-method research. However, in this study we use the quantitative research to analyze and provide the results.

Quantitative research distinguishes itself from qualitative as it uses numeric data and usually takes on a deductive research design. This means that it starts with an abstract idea and moves towards a concrete measure where empirical tests support or reject the hypothesis developed for the research purpose (Neuman, 1994, p. 87). Quantitative data should be used in the following situations (Neuman, 1994, p. 134):

- When the researcher has some knowledge, or pre-assumptions about a phenomenon
- When there is a desire for describing the frequency of a phenomenon
- When it is pertinent to have little information obtained from a large number of respondents

An obvious advantage of the quantitative method is gathering information from a large number of respondents, which ensures statistically representative data. Furthermore, the method makes it easy to uncover the main features of the studied phenomenon, which involves the typical characteristics of the phenomenon, as well as the deviations from normality. Another benefit provided by the method is its ability to give precise answers to problem statements using numerical values or percentages (Van Biljon, Suppliers networks re-engineering by automotive assemblers in the province of the Eastern Cape, 1999). The largest danger associated with this method, however, is according to Van Biljon (1999), that it can give a shallow representation of reality, as it measures simple relationships and not complex ones. The reason for the focus on simple relationships with the use of this method is based on the large number of respondents which makes in-depth analysis difficult to accomplish, and the dealing with numerical values, which further complicates this possibility. Another disadvantage with the quantitative method is that the researcher could influence responses through the framing of the survey questions which are set. Predefined survey questions restrain respondents from assessing the relevancy of questions, and making the choice of questions to answer. This could exclude an illumination of themes subjectively regarded as important, and in turn leads to the exclusion of central information.

#### 3.2 Research Design

The first part of the master thesis mostly covers secondary data, to give insights into the current situation of worldwide wine markets. Secondary data have already been collected for different purposes, but there is a possibility of reanalyzing data and using them as a supplement to primary data (Saunders, Lewis, & Thornhill, 2009). However, there are

different types of secondary data used, such as: industry statistics and reports, organization surveys, academic surveys, EU publications, government publications, journals, web sites, etc. Moreover, the part of the research, about consumer behavior and consumer decision making process is based on a theoretical and literature study, such as books and published researches and articles.

The second part of the master thesis is an empirical study which uses primary data to conduct a quantitative research. Quantitative or numerical data, which are measured in numbers, are very useful to explore, present and describe the existing relationship between variables (Saunders, Lewis, & Thornhill, 2009). However, as a descriptive approach of quantitative data a survey strategy is used, which gives more control over the research process. Hence, the data collection instrument is a questionnaire which is structured particularly to help get the answers, to the research questions, and meet the research objectives.

The population for this empirical study includes wine purchasing consumers who are Montenegrin residents. In addition, the population consists solely of wine consumers that meet the alcohol minimum purchase age, which is 18 in the country. Because of the time and cost constraints, it is not possible to collect data from the entire population. A sample is defined to best represent the population. For this exploratory study a non-probability, or judgmental sampling technique is used. It means that cases from the population don't have an equal chance, or probability to be selected (Saunders, Lewis, & Thornhill, 2009). Quantitative data is collected from a sample of individual wine consumers which counts 160 respondents in the selected market, and an online filled survey. The survey takes place in various types of stores including supermarkets, liquor stores, wine stores, etc. In order to keep wine consumers' goodwill, the questionnaire contains 26 close-ended, (multiple choices) questions with five and seven point Likert scale, and it takes no longer than 10 minutes to complete.

Moreover, the analyses of the collected data use some of the statistical techniques from the STATA 12 and SPSS 22 software packages and further explain findings.

#### **3.3** Questionnaire Design

The questionnaire is structured into five blocks, or sections. The first block is called "Usage situation and consumption", and counts eight questions. Two types of question formats are used in this block, such as forced-choice, and closed-ended questions, which represent list and category questions (single and multiple choice questions). The questions are focused on defining individual wine consumption of each respondent. Some of them offer wide variety of choices upon wine drinking situations, such as: meal with partner/friends/family, drink with partner/friends/family/oneself, business related, an outdoor BBQ/picnic, and a party/celebration. In addition, there are questions about

frequency and place of purchase, type and price of wine they purchase, purpose of wine consumption, and drinking and buying habits.

The second block of questionnaire is about "Wine attributes and characteristics" and has two questions, multiple choice and rating Likert scale questions. Here, the respondents were asked to identify their preferred wine attributes and the level of importance of each attribute during their wine purchase (using five point Likert scale from "not at all important" to "very important").

The third block title is "Characteristics of Montenegrin wines" and counts three questions, multiple choice, and rating Likert scale questions. These questions are mainly focused on the origin of wine that describes preferences upon Montenegrin wines, and gives a general picture about the most favored consuming wine in Montenegro. The respondents are asked to select a wine country of origin they buy most, and also to choose a drinking situation in which they consume Montenegrin wines. Moreover, using seven point Likert scale, respondents can agree or disagree with statements about Montenegrin wines.

The fourth block contains seven questions about "Wine knowledge and involvement". The questions are designed to identify the consumer level of wine knowledge, separately measuring objective wine knowledge by answering five selected questions from wine industry, and using five possible responses, including a 'don't know' option. Subjective knowledge is measured by six statements using seven point Likert scale. Wine involvement is measured by eight statements, where respondents agree or disagree using seven point Likert scale.

The final fifth block is "Socio-demographic characteristics" with six questions. However, this section consists of different types of questions, such as dichotomous choice questions, force-choice, and quantity or self-coded questions. These questions include gender, a year of birth, a level of education, a size of household, a family net income, and a current employment status.

The survey questionnaire is preceded by cover letter with all needed details about the research project, the organization behind it, reasons and purposes of the research, as well as required time and deadline of the survey. Also respondents have a right to comment, or ask the researcher additional questions about the research by sending an email to the available email address. More details and visualization are provided in the Appendixes C and D.

#### 3.4 Data Collection

Quantitative data were collected from a sample of 160 individual respondents, using an intercept interview technique performed in a real purchasing environment, and by an online questionnaire. In total 160 responses were gathered: 50 surveys were conducted in-

store, while 110 online (out of 361 respondents who started filling in the questionnaire). Each of the stores was contacted to request participation in the study. In addition, they were offered a copy of the results from their individual store in return for cooperation with the research. The stores are located within urban areas in different cities across the country. A structured questionnaire was used in this case, and respondents were intercepted during or after the purchase. In some instances, respondents were asked to fill the questionnaire, even if they did not buy the wine, but they showed interest in wine by spending time reading labels, or just looking round a wine sector in the store. The survey was conducted at different times and days of the week, which included different types of shoppers and improved the representativeness of the sample. However, answers of completed questionnaire, in order to run empirical analysis.

A complementary part of data collection is an online questionnaire, which covered mostly younger age population. The questionnaire is designed on EnKlikAnketa (<u>www.1ka.si</u>) website and distributed through the researcher's network, and other social networks. A combination of both methods of data collection is used to increase the diversity of the sample. Hence, the structure of the online questionnaire is the same as questionnaires conducted in the stores. One of the major advantages of using an online, or internet based questionnaire can be geographical dispersibility, large sample size, and reducing of time and costs. However, the questionnaire was publicly open, as well as shared on social networks and through different wine and other organizations in the country.

#### **3.5 Ethical Considerations**

According to Hennink, Hutter, and Bailey (2011), there are several different ethical considerations a researcher needs to be aware of, such as:

- Informed consent
- Self-determination
- Minimization of harm
- Anonymity
- Confidentiality

Prior to the research all the respondents got an e-mail that confirmed their anonymity. They were given a participant information and consent form. It was also important not to harm the respondents, and no matter what they said, it would not have been written in any negative manner. The names of shops and supermarkets have also been kept anonymous, making sure that nothing can be related to them. The anonymity is considered as extremely

important when writing this thesis, in order to make the participants relax, and give answers as honestly as possible.

## 3.6 Research Limitations

The main limitation of this study comes from the sampling technique applied in data collection, which is non-probability sampling. Although purposive sampling has been applied to certain extent by approaching shoppers in supermarkets at wine sections, still the majority of collected data comes from online surveys for which convenience sampling technique was applied. Therefore, since the sampling frame is not known and the sample is not chosen at random, the inherent bias in this type of sampling means that the sample is unlikely to be representative of the studied population. This undermines the ability to make generalizations from the sample to the population which is being studied.

### 4 RESEARCH FINDINGS AND DISCUSSION

This chapter will provide insights into empirical findings, and will assess hypotheses set in the previous chapter. First of all, sample characteristics and results on consumer's wine behavior are presented. Then, some parts of data related to respondents' attitudes towards wine are given in order to gain a better profile picture of respondents. The last section presents the results of hypotheses testing.

### 4.1 Presentation of Sample Characteristics

In terms of age structure, Figure 12 shows that the majority of respondents belong to the first two age groups, or more precisely from 18 to 32 years old. Namely, 57% belong to these two groups which might be due to partial online data collection, which was predominantly filled by younger respondents. On the other hand, significant portion of respondents belong to the age group 45 and older, which can also be due to the openness of this age group in supermarkets. The variable Age has been created, and it is expressed in years of respondents. According to gender, male (48%), and female (52%) take almost equal parts in data analysis.

Figure 12. Age Structure of Respondents



When it comes to the level of education, high majority of respondents have a degree from university (89%), whereas other 18 respondents (11%) have a high school degree. Having only two groups of respondents in this category might affect results due to low number of variations in the dataset.

In terms of economic status of respondents, as it can be seen in Figure 13, 61% of them make more than Euro 1,000 per month net of taxes, which is above Montenegrin average.



#### 4.2 Consumer Behavior related to Wine Purchase and Consumption

Since the aim of this study is to produce findings related to consumer behavior, the first and the most important attitude towards wine is reflected through the purchase behavior of respondents. Therefore, Figure 14 can be used for better understanding of consumer profile who took part in the survey.



As it can be concluded from Figure 14, 10 respondents (6%) do not purchase wine at all, thus it has been decided to exclude them from further analysis, since their responses do not have any relevance. Further, Figure 15 provides an overview of places where respondents consume wine. Furthermore, it can be easily spotted that over half (51%) of respondents indulge in wine at home most frequently.



Figure 15. Place of Wine Consumption

In addition, as it can be seen from Figure 16, more than three fifths of respondents purchase wine in supermarkets (66%), whereas very low number (3%) of them goes to a wine cellar. However, wine shops (17%) and grocery stores (12%) are similarly favored as a place to buy wine.



Another interesting observation can be identified from Figure 17, which states that social interaction is the dominant purpose people choose to drink wine, which is followed by Lifestyle symbol and Health. Social status is the purpose of wine consumption for 6% of respondents, whereas 9% of respondents have claimed other to be the purpose of drinking wine, but the majority have expressed Joy and Taste of wine as the purpose.



#### Figure 17. Purpose of wine consumption

#### 4.3 Attitude towards Montenegrin Wine

As it can be seen in Figure 18 on average respondents have rated Montenegrin wine on scale from 1 to 7 as not expensive, and providing value for money, and being appropriately priced. However, the overall belief is that there is lack of advertising, as well as a choice and brands of Montenegrin wine. But one cannot doubt in confidence in Montenegrin wine

among respondents, since the majority of them believe that the quality of Montenegrin wine is high.



Figure 18. Attitude towards Montenegrin wine

Furthermore, as it can be seen in Figure 19, there are not significant differences in views on pricing among different age groups. Though, one cannot neglect the fact the 45+ respondents have rated Montenegrin wine with higher grades than others when it comes to appropriate pricing and value for money. Another interesting observation is that the age group 26-32 has given it the worst scores. One would expect these scores from the first group (18 to 26) due to financial situation in which the majority of the respondents from this group are, since they are mostly students.





Moreover, when it comes to the perception of quality, confidence and trust are on average the highest in the youngest group, as shown in Figure 20. In addition, one cannot neglect the low score given on prestige by the age group from 26 to 32. One would argue that it is not a coincidence that they give the lowest score on this category, while giving the lowest one also on the pricing parameters. Thus one can see that there is a link between prestige and willingness to pay more.



Figure 20. Perception of Quality and Image by Age Group

Figure 21 shows that most of respondents can find Montenegrin wine easily. However, the choice of sorts, and variety of brands seem to be quite dissatisfactory for almost all age groups besides the youngest ones (from 18 to 26). This time the group 32-40 seems to be the most critically oriented which is reflected through the scores they give on the satisfaction with promotion, as well as the choice of sorts.



Figure 21. Views on Promotion Efforts by Age Group

Contrary to grouping results by age, prices seem to be perceived equally by both genders, shown in Figure 22. There are some really insignificant differences, but they can be neglected.



However, when it comes to the perception of product quality and product image, as per Figure 23, males seem to be less demanding, and they give higher score in terms of quality to Montenegrin wine than female counterparts do. Similarly, they consider it to be more prestigious than women do. Interestingly, women believe that it is ranked better in the region than men do, which can be seen as contrary to beliefs about prestige, but does not have to be.



Figure 23. Perception of Quality and Image by Gender

As it can be seen in Figure 24, the highest variation in results between genders has shown to appear in the promotion efforts Montenegrin wine producers undertake. Female respondents are way more satisfied with the variety of brands and choice of sorts than their male counterparts. In addition, they seem to be relatively satisfied with promotion which is used for Montenegrin wines, whereas men seem to be more critically oriented in this segment.



Figure 24. Views on Promotion Efforts by Gender

#### 4.4 Hypotheses Testing

All the variables, dependent and independent, and data treatment used in this study are explained in the Appendix E. It is important to note that Cronbach's Alpha analysis has been conducted for three variables (Involvement, Subjective, and Objective knowledge) since they have been formed based on data collected from a number of questions, thus requiring certain test of reliability of scale. It has been shown that Involvement and Subjective knowledge are highly reliable, since their Cronbach's Alphas are above 0.85 which is considered as a really high score, and thus can be considered reliable. However, Objective knowledge Cronbach's Alpha is slightly below 0.6, which is obviously below recommended 0.7 threshold, but still can be utilized in analysis (Lance et al, 2006). The reason for low Cronbach's Alpha is that responses to questions do not reflect scalability, but are rather random. For example, the right answer to the first question is the third option ("3"), whereas the right answer to the second question is the second option ("2"). Accordingly, the Cronbach's Alpha analysis has been conducted and presented in details, in the Appendix F.

## H1a: Females will take into consideration more product attributes than males in the decision making process.

Table 4 shows that on average female respondents take into account 0.58 more attributes than males in the decision making purchase at 5% significance level *ceteris paribus*. This finding is in line with the finding of Bruwer et al (2011). Therefore, there is sufficient evidence to **accept the hypothesis H1a**, which states that females take more attributes in a decision-making process than males.

Furthermore, it has been shown that younger respondents claim to consider more attributes than older ones. More precisely, on average, additional year of age implies 0.02 attributes less ceteris paribus e.g. respondent who is 27 years old will use 0.02 attributes less than the

one who is 26 years old. It is also interesting to note that, on average, at least 1.97 attributes are taken into consideration regardless of other factors considered in this model – it is reflected in the coefficient of the constant term.

### H1b: In the decision making process, consumers with higher education level will take more product attributes into consideration, than consumers with lower education level.

Table 4 indicates that Education and Earnings are insignificant, whereas other variables have shown to have strong significant relationships with Number of Attributes. Therefore, it is **insufficient evidence to accept the hypothesis H1b**.

# H2a: If the consumers' knowledge of wine (subjective/objective) increases, the total number of product attributes used during the purchase decision process will also increase.

Table 4 shows that Subjective and Objective knowledge have a positive and highly significant relationship with number of attributes. Namely, the increase in subjective and objective knowledge by one unit will rise, on average, the number of attributes used in the decision-making process by 0.33 at 1% level of confidence, other things remaining the same. Therefore, there is sufficient evidence **to accept the hypothesis H2a**.

Table 4. Number of Attributes - Multiple Regression <sup>4</sup>					
Explanatory variables	Number of Attributes				
/Dependent factor					
	$R^2 = 0.34$	Sig.=0.000			
	В	P-value			
Female	0.5806	0.011			
Age	-0.0198	0.041			
Earning	0.2513	0.287			
University	0.0635	0.802			
Subjective Knowledge	0.3344	0.001			
Objective Knowledge	0.3290	0.002			
Involvement	-0.1996	0.041			
Number of Occasions	0.3417	0.000			
Constant	1.9774	0.179			

<sup>&</sup>lt;sup>4</sup> See Appendix G, Table 7.

It is important to report multiple regression diagnostics which turned out to be satisfactory, but still not really perfect. Multicollinearity check shows there are no highly correlated independent variables, which means that a multiple regression model indicates well how independent variables predict the outcome of dependent variable. Furthermore, there is no presence of heteroscedasticity, which reports that the variance is the same across all values of the independent variables. The only issue which can be seen as weakness of this model is normality of residuals, especially on tails, but in overall it is not bad because Shapiro-Wilk W test suggests that one cannot reject the hypothesis that residuals are normally distributed<sup>5</sup>.

# H2b: Consumers with high level of wine knowledge (subjective/objective) will utilize more intrinsic product attributes than extrinsic product attributes in the decision making process.

Cross-tabs with Chi-square test have been used in order to identify whether knowledge has effect on the choice of type of attributes. Namely, attributes have been divided into two types: extrinsic and intrinsic. Each respondent's attribute has been counted by these two categories, and "Intrinsic A" variable has been created as a dummy variable, which takes value of 1 for respondents who take into account more intrinsic variables, and 0 for all others. In order to meet assumptions of the applied test, the data on knowledge have been transformed into two groups. Namely, no cell in – cross-tabulation should have expected count not less than 5. Therefore, all respondents who scored from 0 to 2 have been put in the first category – low knowledge, whereas others (from 3 to 5) have been categorized as the ones with higher knowledge. Chi-square test has suggested that there is no significant difference in the choice of type of attribute taken into consideration in the decision-making process in purchase of wine between different levels of knowledge. It is important to note that chi-square test with cross-tabs has been conducted for both types of knowledge, objective and subjective, results of which are provided in details in the Appendix H. Therefore, one can say that there is **no sufficient evidence to accept the hypothesis H2b**.

These findings are contrary to studies conducted by Szybillo & Jacoby (1974); Grunert (1986); Forney et al (1999) who found significant positive relationship between knowledge and intrinsic product attributes used in the decision-making process.

# H2c: Consumers with high level of wine knowledge (subjective/objective) will use country of origin in the decision making process, more than consumers with low level of wine knowledge.

Chi-square test with cross-tabs has been utilized in order to test the hypothesis H2b. It has been found that there are no significant differences in usage of country of origin in decision-making process, regardless of the level and type (subjective vs. objective) of

<sup>&</sup>lt;sup>5</sup> See Appendix G, Tables 8, 9, 10, 11 and Figures 4, 5, 6.

knowledge about wine respondent possesses. Therefore, there is sufficient evidence to **reject the hypothesis H2c**. More details and visualization are provided in the Appendix I.

# H3: If the consumers' product involvement increases, the total number of product attributes used during the decision making process will also increase.

Multiple regression analysis is used to test the hypothesis H3. Accordingly, Table 4 shows that involvement is in significant relationship with number of attributes. It is also important to note that the estimated coefficient has negative sign, which suggests that with an increase in involvement by one unit, the number of attributes falls down on average by 0.19 at 5% level of significance, other things remaining the same. Therefore, there is sufficient evidence to **reject the hypothesis H3**.

# H4: Consuming wine in higher variety of occasions implies consideration of higher number of attributes.

Furthermore, this multiple regression provides information on relationship between number of occassions at which wine is consumed and number of attributes utilised in the decision-making process. As it can be seen in Table 4, there is a positive and highly significant relationship between these two variables. Namely, consuming wine in one extra occassion will on average increase the number of attributes used in the decision-making process by 0.34 at 1% level of significance, other things remaining the same. It means that three additional occassions would imply one additional attribute other things remaining constant. Thus, one can say that there is sufficient evidence to **accept the hypothesis H4**.

# H5: Consumers will evaluate the price cue as the most important product attribute comparing to other product attributes in the decision making process.

And lastly, the importance of attributes has been tested by assessing mean scores given by respondents. As literature suggests that a price cue is the most important factor in decision-making in purchase of wine, the focus was put on it, and the hypothesis has been developed. However, as it can be seen in Table 5, it comes only to the seventh position, after taste, color, type, country, match with food and brand. It is contrary to findings of majority of studies in this field (Batt & Dean, 2000; Rasmussen & Lockshin, 1999, Hall, Lockshin, & O'Mahony, 2001; Yu, Sun, Goodman, Chen, & Ma, 2009; Bruwer & Buller, 2012; Menezes, Candido, & Angelico, 2010; Geraghty, 2010; McCutcheon, Bruwer, & Li, 2009). Therefore, there is sufficient evidence to **reject the hypothesis H5**.



<sup>6</sup> See Appendix J

Taste	147	4.43	0.951	0.078
Color	149	4.13	0.998	0.082
Туре	147	3.65	1.145	0.094
Origin	146	3.61	1.098	0.091
Foodmatch	146	3.56	1.138	0.094
Brand	146	3.49	1.109	0.092
Price	149	3.44	1.048	0.086
Vintage	148	3.24	1.276	0.105
Recom	147	3.13	1.022	0.084
Test	146	3.05	1.225	0.101
Organprod	146	3.04	1.237	0.102
Profadv	147	2.77	1.067	0.088
Label	147	2.61	1.076	0.089
Award	147	2.27	0.967	0.080

The previously developed and explained hypotheses have been examined through several statistical analyses. Accordingly, Figure 25 provides a summary of these results and hypotheses testing.



Figure 25. Summary of Hypotheses Testing

#### **5 RECOMMENDATIONS FOR WINE PRODUCERS**

Taking into account the main findings of this thesis, one could argue that Montenegrin wine producers should definitely work on their offering, since assortment and variety of wines are seen as the weakest points. However, as it has been shown, taste is considered to be the most important factor, which implies it has to be kept at high level in the course of expansion of assortments. However, currently offered sorts of wine by Montenegrin producers are at very high level, which implies that this attribute of wine is already taken as a priority by wine makers. In addition, one could argue that Montenegrin wine producers should not be too concerned with their competitiveness in terms of price, since consumers perceive it as a very reasonably priced product. Moreover, they do not seem to pay much attention to the price as an attribute in the decision-making. Therefore, increasing quality and providing higher variety of sorts and tastes even at higher costs can be seen as a successful strategy.

In addition to the above, as overall pricing can be slightly increased, the value can be justified through higher marketing efforts, since the respondents argue that there is a lack of advertising. The producers should aim at building brand image and increasing overall reputation of Montenegrin wines, since they are not perceived as prestigious even in the local market. In turn, this is likely to increase value for money even more.

Lastly, one could argue that there is still significant room for introducing new brands by Montenegrin wine makers, since respondents believe that Montenegro as a Mediterranean country with long tradition in wine making should have richer offer. This can serve as a good signal for investors interested in producing wine in Montenegro, which is more than likely to be welcomed by local population, but as mentioned above, taste has to be the priority.

#### CONCLUSION

The main aim of this study was to examine the purchasing behavior of Montenegrin wine consumers and evaluate the influence of different factors on their purchasing decisions. The major aims of this thesis were to determine product attributes used by consumers when purchasing wine; to see how consumers use those attributes to make their final decisions; to understand the importance of product attributes to consumer, and to compare and assess the importance of intrinsic and extrinsic product attributes in the decision making process.

First of all, the overview of global trends in wine industry is provided and it is followed by insights from the Montenegrin market. Then, there is a literature review on consumer behavior and a decision making process in wine purchase. The literature review has the role of building the conceptual model for further research. The number of attributes is taken as a proxy for purchase decision, which is deemed to be affected by socio-demographic factors such as age, education, gender and earning, as well as the

involvement in wine industry and knowledge of wine, and, finally, the number of occasions in which wine is utilized.

In addition, an extensive description of research design has been provided, and everything is set for data analysis presented in the fourth section. First of all, attitudes of respondents towards Montenegrin wine are assessed by presenting a summary of responses for different categories, by different demographic features. On the one hand, it has been shown that Montenegrin wine is perceived as not expensive, and providing value for money, which means it is appropriately priced. On the other hand, the overall belief is that there is a lack of advertising, as well as a choice and brands of Montenegrin wine. But one cannot doubt in confidence in Montenegrin wine among respondents, since the majority of them believe that the quality of Montenegrin wine is high. However, significant differences have been found in views at certain attributes of wine marketing by Montenegrin wine producers, among different age groups and genders. Namely, younger respondents in the age group 26-32, mostly young professionals, have expressed high concern with pricing level of Montenegrin wines, whereas older respondents, and the youngest ones (mostly students) consider it to be priced appropriately. Similar results are found in relation to the trust in quality and the level of prestige of Montenegrin wine. More importantly, it has been shown that the majority of respondents consider the choice of sorts and the variety of brands provided by Montenegrin producers to be very low, whereas only the youngest respondents find them satisfactory. When it comes to attitudes by gender, the main differences exist in terms of quality and prestige, which implies higher level of satisfaction among male respondents. On the other hand, male respondents are way less satisfied with promotion efforts Montenegrin wine producers make, as well as with the variety of choices of brands and sorts.

In addition, one should not neglect the finding that the majority of respondents have stated that home is the most common place for wine consumption, which is followed by restaurants and clubs. When it comes to shopping, supermarkets and wine shops are most common places where wine is purchased in Montenegro. Therefore, in order to reach the final consumer, the best way is to make wine easily accessible in most supermarkets and restaurants.

Furthermore, different combinations of relationships between occasions and attributes were established in order to show that different occasions involve assessment of different attributes. One of interesting findings is the fact that parties actually involve the highest number of attributes in comparison to other occasions. In addition, promotion prices have been found to be the most appreciated attribute. Moreover, it has been shown that price cue is not the most important attribute as suggested by other studies. However, taste, brand, and sort of wine have been shown to be of great importance as suggested by other studies. Therefore, one could argue that Montenegrin wine producers should focus on bringing new sorts into the market, as well as building a strong brand identity which can be recognized and appreciated by customers easily.

Furthermore, multiple regression analysis is used in order to estimate the conceptual model which was previously established. However, data is not perfect in terms of significance for all variables, certain conclusions could have been obtained from the model. It has been shown that gender does play role, and that females, on average, take more than half of attributes into consideration in comparison with male counterparts. Besides, both objective and subjective knowledge has been shown to increase the number of attributes utilized in the decision-making process. In addition, age has been indicated to play a role in number of attributes used by consumers in the decision-making process, and interestingly, results suggest that younger consumers actually take into consideration more attributes than older ones. Additional analysis in relation to type of attributes i.e. intrinsic versus extrinsic, has been conducted, although no statistically significant conclusions could be made.

To conclude, the study has provided an initial insight into the characteristics of consumers in the Montenegrin wine market. It gives theoretical contributions by comparing its findings to findings of studies conducted in other markets. Managerial contributions are provided and managers of wine producing companies can take them into account when preparing their marketing strategies. However, to get more representative results, further studies should be conducted on larger samples using probability sampling.

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APPENDIXES

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## Appendix A: World Vineyard Surface and Wine Consumption per Capita



Figure 1. Surface under Vine - Evolution in % 2008-2012

Source: OIV, World Vitiviniculture Situation in 2012, 2013a, p. 8.

## Figure 2. Total Wine Consumption and Wine Consumption per Capita, 2007-2011



Wine consumption

Selected countries, still and sparkling, litres per person\*

Source: Daily Chart, *Wine Consumption*, 2012, Retrieved March 10, 2013 from: http://www.economist.com/blogs/graphicdetail/2012/03/daily-chart-15

### **Appendix B: Consumer Decision Process Model**



Figure 3. The Decision Process Model - CDP Model

Source: Blackwell, R. D.; Miniard, P. W., & Engel, J. F., Consumer Behavior (9th ed.), 2001, p.83.

# Appendix C: Example of Online and In-store Questionnaire in Montenegrin Language

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Ponašanje potrošača vina u Crnoj Gori

## ANKETA:

## PONAŠANJE POTROŠAČA VINA U CRNOJ GORI

Poštovani,

Ova anketa je dio istraživačkog rada pod nazivom Consumer behaviour on the Montenegrin wine market, odnosno Ponašanje potrošača na crnogorskom tržištu vina, i ima za cilj da prikupi podatke neophodne za empirijsko istraživanje. Svrha istraživačkog rada jeste da ispita ponašanje potrošača pri kupovini vina i procijeni uticaj različitih faktora na njihove kupovne odluke.

Vaše učešće u anketi je anonimno, a svi Vaši odgovori ostaće povjerljivi i biće iskorišćeni isključivo za poboljšanje i unaprijedjenje istog istraživanja. Samo istraživač ovog projekta ima pristup podacima prikupljenim ovom anketom. Samim odgovaranjem na postavljena pitanja u anketi dobrovoljno učestvujete u istraživačkom radu. U svakom momentu za vrijeme ankete imate mogućnost da se obratite istrazivaču za dodatna pitanja vezana za istraživanje, na email adresu: <u>tamarac1989@hotmail.com</u>. Takodje imate pravo da odustanete od učešća u anketi kad god to odlučite.

Vrijeme potrebno za ispunjavanje ankete nije duže od 10 minuta. Molim Vas obratite pažnju da odgovorite na sva pitanja.

Sada možete započeti anketu klikom na: Sledeća strana

#### Q1 - Koliko često pijete vino?

- 🔾 Nikada
- O Nekoliko puta godišnje, ali ne mjesečno
- 🔘 Nekoliko puta u mjesecu, ali ne sedmično
- 🔘 Nekoliko puta sedmično, ali ne svakodnevno
- 🔾 Svakog dana

#### Q2 - Koliko često kupujete vino?

- 🔿 Nikada
- O Nekoliko puta godišnje, ali ne mjesečno
- Nekoliko puta u mjesecu, ali ne sedmično
- 🔘 Nekoliko puta sedmično, ali ne svakodnevno
- 🔾 Svakog dana

## Q3 - Koliko obično potrošite za kupovinu jedne boce vina?

Cijena izražena u eurima, za kolicinu od 750 ml.

- 5 ili manje
   5-10
   10-15
   15-30
   30-50
   50 ili vise
- $\bigcirc$  50 m vise

#### Q4 - Koju vrstu vina najviše konzumirate?

- Suvo crno vino
   Suvo bijelo vino
   Slatko crno vino
   Slatko bijelo vino
   Pjenušavo vino
- Ostalo

#### Q5 - Na kojim mjestima najviše konzumirate vino?

Hotel
 Restoran
 Kuci
 Nocni klub
 Bar
 Ostalo

#### Q6 - U kojim situacijama obično

konzumirate/kupujete vino? Moguće izabrati više odgovora.

- Obrok sa partnerom
- Obrok sa prijateljima
- Obrok sa porodicom
- Piće sa partnerom
- Piće sa prijateljima
- Piće sa porodicom Kad ste sami
- Poslovna okupljanja
- Izleti na otvorenom/ BBQ Slavlje/ zabave
- Slavije/ Zaba
- Ostalo:

#### Q7 - Koja je vaša svrha konzumiranja vina?

- Moguće izabrati više odgovora.
- Zdravlje
- Društvena komunikacija
- Simbol životnog stila
- Društveni status
- Ostalo:

#### Q8 - Gdje najviše kupujete vino?

- O Prehrambena prodavnica
- Supermarket
- O Prodavnica vina
- 🔘 Podrum
- Ostalo:

## Q9 - Koje faktore od ispod navedenih, uvijek razmatrate pri kupovini vina?

Moguće izabrati više odgovora.

- Cijena
- Vrsta (crno/bijelo)
- Vinska sorta
- Berba (godina)
- Ukus
- Brend
- Zemlja/region porijekla
- Prethodno testiranje
- Osvojena priznanja/medalje
- Profesionalni savjet
- Preporuke drugih
- Izgled ambalaže/etikete
- Alkohol %
- Promotivne cijene
- Informacije na rafu
- Slaganje sa hranom
- Organska proizvodnja
- Ostalo:

TAMARA ČAVOR

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#### Q10 - Molim Vas da odredite stepen važnosti atributa vina u sljedećoj tabeli, prema skali od 1 do 5:

	Uopšte mi nije važno	Uglavnom mi nije važno	I važno I nije mi važno	Uglavnom mi je važno	Izuzetno mi je važno
Cijena	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0
Vrsta (crno/bijelo)	Ō	Ō	Ō	Ō	Ō
Vinska sorta	Ō	Ō	Ō	Ō	Ō
Berba (godina)	Ō	Ō	Ō	Ō	Ō
Ukus	Ō	0	Ō	Ō	Ō
Brend	Ō	Ō	Ō	Ō	Ō
Zemlja/region porijekla	Ō	Ō	Ō	Ō	Ō
Prethodno testiranje	Ō	Ō	Ō	Ō	Ō
Osvojena priznanja/medalje	Ō	Ō	Ō	Ō	Ō
Profesionalni savjet	Ō	0	Ō	0	0
Preporuke drugih	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
Izgled ambalaže/etikete	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
Slaganje sa hranom	0	Ō	0	0	0
Organska proizvodnja	Õ	Õ	Õ	Õ	Õ
Ostalo:	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

Q1	1 -	Iz	koj	e zem	lje 1	najč	ešće	kupuj	jet	e vi	ino?	1
----	-----	----	-----	-------	-------	------	------	-------	-----	------	------	---

- Crne Gore
   Italije
   Španije
   SAD-a
   Francuske
   Čilea
   Australije
   Novog Zelanda
   Južne Afrike
   Njemačke
   Portugala
   Argentine
- Ostalo:

## Q12 - U kojim situacijama najčešće konzumirate crnogorsko vino?

 Moguće izabrati više odgovora.

 Obrok sa partnerom

 Obrok sa prijateljima

 Obrok sa porodicom

 Piće sa partnerom

 Piće sa prijateljima

 Piće sa porodicom

 Kad ste sami

 Poslovna okupljanja

 Izleti na otvorenom/ BBQ

 Slavlja/ zabave

 Ostalo:

#### Q13 - Molim Vas da iskažete vaše slaganje ili ne slaganje sa sledećim iskazima, na skali od 1 do 7:

	Uopste se ne slažem	Ne slažem se	Djelimično se ne slažem	Nemam mišljenje / ne znam	Djelimično se slažem	Slažem se	Potpuno se slažem
Crnogorska vina su skupa	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$
Crnogorska vina pružaju dobru vrijednost za novac	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Crnogorska vina imaju adekvatne cijene	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Zadovoljan/na sam kupovino crnogorskih	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$

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	Uopste se ne slažem	Ne slažem se	Djelimično se ne slažem	Nemam mišljenje / ne znam	Djelimično se slažem	Slažem se	Potpuno se slažem
vina							
Crnogorska vina su prestižna	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0
Crnogorska vina su visoko rangirana u regionu	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Vjerujem u kvalitet crnogorskih vina	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Uvijek sam zadovoljan/na sa crnogorskim vinima	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$
Crnogorska vina imaju visok sveukupni kvalitet	0	0	0	0	0	0	$\bigcirc$
Crnogorska vina su široko dostupna	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Vidim/čujem dosta reklama za crnogorska vina	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$
Crna Gora ima dosta prepoznatljivih vinskih brendova u regionu	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$
Crna Gora ima širok izbor vinskih sorti	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0

### Q14 - Molim Vas da iskažete vaše slaganje ili ne slaganje sa sledećim iskazima, na skali od 1 do 7:

	Uopšte se ne slažem	Ne slažem se	Djelimično se ne slažem	Nemam mišljenje / ne znam	Djelimično se slažem	Slažem se	Potpuno se slažem
Vino je veoma važno za mene	0	0	$\bigcirc$	0	0	0	0
Veoma sam zaiteresovan za vino	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Volim da konzumiram vino uz hranu	0	0	0	0	0	0	0
Uvijek posjećujem sajmove/festivale vina	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Volim vino i uživam da pričam o njemu	0	0	$\bigcirc$	$\bigcirc$	0	0	0
Pratim vinske trendove u svijetu	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Aktivni sam član vinskog kluba	0	0	0	$\bigcirc$	$\bigcirc$	0	0
Proizvodim vino kod kuće	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$

	Uopšte se ne slažem	Ne slažem se	Djelimično se ne slažem	Nemam mišljenje, ne znam	Djelimično se slažem	Slažem se	Potpuno se slažem
Siguran/na sam u svoje znanje o vinu	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Išao/la sam na časove radi sticanja teorijskog i praktičnog znanja o vinu i vinskoj kulturi	0	0	0	0	0	0	0
Čitam knjige i časopise o vinu	0	0	0	0	0	0	0
U društvu prijatelja ja sam ekspert u poznavanju vina	0	0	0	0	0	0	0
Imam veliko iskustvo u konzumiranju vina	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
Uvijek pitam za pomoć u prodavnici pri odabiru vina	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

#### Q15 - Molim Vas da iskažete vaše slaganje ili ne slaganje sa sledećim iskazima, na skali od 1 do 7:

#### Q16 - Koje od navedenih je crno vino?

- Riesling
- Chardonnay
- ◯ Merlot
- Savignon Blanc
   Ne znam

#### Q17 - Koja zemlja od navedenih se smatra rodnim mjestom vina?

- 🔘 Španija 🔾 Gruzija 🔾 Francuska 🔵 Italija
- O Ne znam

#### Q18 - Koje od navedenih nije poznati francuski region vina?



- 🔾 Šampanija
- O Rheingau
- Ne znam

#### Q19 - Koja od navedenih nije primarna vinska sorta u Bordou?

- Cabernet Sauvignon
- Merlot
- O Petit Verdot
- Pinot Noir
- Ne znam

#### Q20 - Koja se vinska sorta nikada ne koristi za dobijanje šampanjca?

- Riesling
- Chardonnay
- 🔵 Pinot Noir
- Pinot Meunier
- 🔾 Ne znam

#### Q21 - Pol:

🔿 Muški 🔾 Ženski

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#### Q22 - Vaša godina rodjenja:



#### Q23 - Koji je vaš najveći stepen obrazovanja?

- O Manje od 4 godine srednje škole
- 🔾 Srednja škola
- 🔾 Univerzitetsko obrazovanje ili više

#### Q24 - Koliko članova ima vaše domaćinstvo?



## Q25 - Kolika su mjesečna neto primanja vašeg domaćinstva?

- Manje od 500 eura
- 500 1000 eura
- 🔾 1000 3000 eura
- 🔾 3000 5000 eura
- 🔘 5000 ili više

#### Q26 - Koji je vaš trenutni radni status?

- 🔘 Zaposlen/a stalni radni odnos
- 🔘 Zaposlen/a privremeni/honorarni posao
- O Penzionisan/a
- 🔿 Nezaposlen/a
- Student
- 🔘 Privatni biznis

Odgovorili ste na sva pitanja u ovoj anketi.

#### Hvala Vam!

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## Appendix D: Example of Online and In-store Questionnaire in English Language

www.1ka.si

Consumer behavior on the Montenegrin wine market

## SURVEY:

### CONSUMER BEHAVIOR ON THE MONTENEGRIN WINE MARKET

Dear respondents,

This survey is part of the research project: *Consumer behavior on the Montenegrin wine market*, which aims to collect data necessary for research. The purpose of the research is to examine the purchasing behavior of Montenegrin wine consumers and evaluate the influence of different factors on their purchasing decisions.

Your participation in this survey is anonymous. All your responses will remain confidential and will be used only to enhance and improve the survey. Only the researcher of this project has access to the data collected in the survey. You voluntarily agree to participate in this research project by filling the following questionnaire. You have the right to comment or ask the researcher any question about the research, sending an email to <u>tamarac1989@hotmail.com</u>. You also have the right to withdraw from the questionnaire any time you wish.

The time required for filling out the questionnaire is no more than 10 minutes. Please be sure that you have responded to every question.

Now you can start the survey by clicking on: Next Page

TAMARA CAVOR

#### Q1 - How often do you drink wine?

- ◯ Never
- Several times per year, but not monthly
- O Several times per month, but not weekly
- O Several times per week, but not daily
- Every day

#### Q2 - How often do you buy wine?

- O Never
- O Several times per year, but not monthly
- Several times per monal, our and
   Several times per week, but not daily Several times per month, but not weekly
- O Every day

#### Q3 - How much do you usually spend for a bottle of wine you purchase?

Price category - 750ml; in euro

С	5 or less
О	5-10
О	10-15
0	15-30
О	30-50
О	50- over

#### Q4 - What type of wine you consume the most?

◯ Dry red wine Dry white wine Sweet red wine Sweet white wine Sparkling wine Other:

#### Q5 - What are the places you consume a wine the most?

O Hotel Restaurant ) Home ) Night club Bar Other:

#### Q6 - In which situation you usually drink a wine? Multiple answers are possible

- Meal with partner Meal with friends Meal with family Drink with partner Drink with friends Drink with family Drink by oneself Business related Outdoor BBQ/ pic-nic Party/ celebration
- Other:

Q7 - What is your purpose of wine drinking? Multiple answers are possible

Body health Social communication Symbol of lifestyle Symbol of social status Other:

#### Q8 - Where you most often purchase a wine?

Grocery stores

- Supermarkets
- O Wine shops
- Cellars
- Other:

Ļ

#### Q9 - Which factors you consider when purchase a wine?

Multiple answers are possible

Price
Type (red/white)
Variety of wine
Vintage
Taste
Brand
Country/ region of origin
Previous testing
Medal/ awards
Professional review
Personal recommendation
Bottle/ label design
Alcohol %
Promotion (price draw)
Info on the shelf
Matching food
Organic production
Other:

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Q12 - In which situation you usually drink a

#### Q10 - Please indicate an importance of the wine attributes in the following table, with 5 point Likert Scale:

	Not at all important	Not important	Neither not important neither important	Important	Very important
Price	$\odot$	0	$\bigcirc$	$\odot$	$\bigcirc$
Type (red/white)	Ō	Ō	Ō	Ō	Ō
Variety of wine	Ō	Ō	Ō	Ō	Ō
Vintage	Ō	0	0	Ō	0
Taste	Ō	0	0	Ō	Ō
Brand	$\odot$	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$
Country/region of origin	Ō	Ō	Ō	Ō	Ō
Previous testing	Ō	Ō	Ō	Ō	Ō
Medal/awards	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Professional review	Ō	Ō	0	Ō	0
Personal recommendation	Ō	Ō	Ō	Ō	Ō
Bottle/label design	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Matching food	Ō	Ō	Ō	Ō	Ō
Organic production	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Other:	Ō	Ō	Ō	Ó	Ō

## Q11 - From which country most often you buy a wine?

	Montenegrin wine?
O Montenegro	Multiple answers are possible
🔵 Italy	
🔵 Spain	Meal with partner
USA	Meal with friends
○ France	Meal with family
Chile	Drink with partner
🔾 Australia	Drink with friends
New Zealand	Drink with family
South Africa	Drink by oneself
Germany	Business related
🔵 Portugal	Outdoor BBQ/ pic-nic
Argentina	Party/ celebration
Other:	Other:

## $\mathbf{Q13}$ - Please indicate your agreement or disagreement with the following statements on the 7 point Likert Scale:

	Strongly disagree	Disagree	Disagree somewhat	Neutral/un decided	Agree somewhat	Agree	Strongly agree
Montenegrin wines are expensive	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	0
Montenegrin wines are good value for money	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Montenegrin wines are reasonably priced	0	0	0	0	0	0	0

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### Consumer behavior on the Montenegrin wine market

	Strongly disagree	Disagree	Disagree somewhat	Neutral/un decided	Agree somewhat	Agree	Strongly agree
I'm proud to buy Montenegrin wines	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0
Montenegrin wines are prestigious	$\bigcirc$	0	0	$\bigcirc$	0	$\bigcirc$	0
Montenegrin wines have high status in the region	0	0	0	0	0	0	$\bigcirc$
I can rely on the quality of Montenegrin wines	0	0	0	0	0	0	0
I'm consistently satisfied by Montenegrin wines	0	0	$\bigcirc$	$\bigcirc$	0	0	0
Montenegrin wines have high overall quality	0	0	$\odot$	$\bigcirc$	0	0	0
Montenegrin wines are widely available	$\circ$	0	0	0	0	0	0
I see/hear lots of adverts for Montenegrin wines	0	0	0	0	0	0	0
Montenegro has well known wine brands in the region	0	0	$\bigcirc$	0	0	0	$\bigcirc$
Montenegro has a wide choice of wine varieties	0	0	$\bigcirc$	0	0	0	0

## Q14 - Please indicate your agreement or disagreement with the following statements on the 7 point Likert Scale:

	Strongly disagree	Disagree	Disagree somewhat	Neutral/un decided	Agree somewhat	Agree	Strongly agree
Wine is very important to me	0	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
I have a strong interest in wine	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I like having wine with my food	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I always visit wine fairs/festivals	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I love wine and like to talk about it	0	0	0	$\bigcirc$	0	$\bigcirc$	0
I follow wine trends in the world	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I'm an active member of wine club	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
I produce wine at home	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$	0

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	Strongly disagree	Disagree	Disagree somewhat	Neutral/un decided	Agree somewhat	Agree	Strongly agree
I'm confident about my knowledge of wine	0	0	0	0	0	0	0
I took wine classes to acquire theoretical/practical knowledge	0	0	0	0	0	0	0
I read books and magazines about wine	0	0	0	0	$\bigcirc$	0	$\odot$
Among my friends I'm the wine expert	$\bigcirc$	0	0	0	0	0	0
I have a lot of experience in consumption of wine	0	0	0	0	0	0	0
I always ask for help in the store when purchasing wine	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

Q15 - Please indicate your agreement or disagreement with the following statements on the 7 point Likert Scale:

#### Q16 - Which of the following is a red wine?

- Riesling
   Chardonnay
   Merlot
   Savignon Blanc
   Don't know

#### Q17 - Which country is generally acknowledged to be the birthplace of wine?

- $\bigcirc$  Spain 🔾 Georgia
- France
- Italy
- ⊖ nary ⊖ Don't know

#### Q18 - Which is not a famous French wine region?

- Burgundy
   Alsace
   Champagne
- Rheingau Don't know

### Q19 - Which is not a primary grape in Bordeaux?

- O Cabernet Sauvignon

- Merlot
   Petit Verdot
   Pinot Noir
- O Don't know

#### Q20 - Which grape variety is never used to make Champagne?

O	Riesling
0	Chardonnay
0	Pinot Noir
0	Pinot Meunier
$\bigcirc$	Don't know

#### Q21 - Gender:

O	Male
0	Female

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○ Less than 4 years of high school

High school University education and higher

#### Q24 - What is the size of your household?

Q25 - What is your family (monthly) net income?

- Less than 500 euro
- 500 1000 euro
   500 3000 euro
   3000 5000 euro
- $\bigcirc$  5000 and more

#### Q26 - What is your current employment status?

- Working full-time
- O Working part-time
- O Retired
- Unemployed
- Student
- O Private business

You have answered all of the questions in this questionnaire.

Thank you!

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## **Appendix E: Variables and Data Treatment**

Number of attributes – count of attributes picked by each respondent.

Number of occasions – count of occasions mentioned by each respondent.

**Gender** - for the purpose of analysis the dummy variable – Female has been created and it takes value of 1 for all female respondents.

**Earnings** - The dummy variable – Earnings has been created in order to differentiate between two groups of respondents with relation to their earnings. Namely, respondents with monthly earnings of more than 1,000 euros have been assigned value 1.

**Involvement** - it has been measured as average score of evaluated seven statements on 7 Likert scale, which reflect the level of their involvement in wine. For instance, "I regularly attend wine festivals and fairs" or "I am an active member of wine club".

**Objective knowledge** – the number of right answers on five questions related to history, geography and sorts of wine.

**Subjective** knowledge – the average score on six questions which serve as statements of knowledge of wine such as "I am an expert in knowledge of wine among my friends".

## **Appendix F: Cronbach's Alpha Testing Output**

Case Processing Summary					
N %					
	Valid	159	99.4		
Cases	Excluded <sup>a</sup>	1	.6		
	Total	160	100.0		

Table 1. Subjective Knowledge – Descriptive Statistics Output

a. Listwise deletion based on all variables in the procedure.

Table 2. Sub	jective Know	ledge – Cron	bach's Al	pha Output
	J	0		

<b>Reliability Statistics</b>					
Cronbach's N of Items					
Alpha					
.847	6				

## Table 3. Objective Knowledge - Descriptive Statistics Output

Case Processing Summary					
N %					
	Valid	160	100.0		
Cases	Excluded <sup>a</sup>	0	.0		
-	Total	160	100.0		

a. Listwise deletion based on all variables in the procedure.

Table 4. Objective Knowledge – Cronbach's Alpha Output

Reliability Statistics					
Cronbach's	N of Items				
Alpha					
.571	5				

## Table 5. Involvement – Descriptive Statistics Output

	eace i recooling cumury					
-		Ν	%			
	Valid	160	100.0			
Cases	Excluded <sup>a</sup>	0	.0			
	Total	160	100.0			

**Case Processing Summary** 

a. Listwise deletion based on all variables in the procedure.

Table 6. Involvement – Cronbach's Alpha Output

Reliability Statistics						
Cronbach's	N of Items					
Alpha						
.862	8					

## Poliability Statistics

## Appendix G: Multiple Regression Analysis - Number of Attributes Testing Output

### Table 7. Multiple Regression Output

. regnumatt female Age Earn university subjknowobjknow involvement occasions

Source	SS	df M	1S	Numbe	r of obs	= 149	
Model	135.40348	8 16.92	25435	Prob>	F	= 0.0000	
Residual	257.831419	140 1.8416	55299	R-squ	ared	= 0.3443	
+ Total	393.234899	148 2.6569	99256	Adj R Root	-squared MSE	= 0.3069 = 1.3571	
	numatt	Coef.	Std. Err.	 t	P> t	[95% Conf.	Interval]
	female	.5806465	.2255527	2.57	0.011	.1347168	1.026576
	Age	0198536	.0096207	-2.06	0.041	0388743	0008329
	Earn	.2513839	.2353218	1.07	0.287	2138598	.7166277
	University	.0635003	.2526502	0.25	0.802	4360026	.5630033
	subjknow	.3344236	.0957045	3.49	0.001	.1452106	.5236367
	objknow	.3290719	.1046605	3.14	0.002	.1221525	.5359913
	involvement	1996115	.0967943	-2.06	0.041	3909791	0082439
	occasions	.3417834	.0822772	4.15	0.000	.1791169	.5044499
	_cons	1.977494	.5608232	3.53	0.001	.8687166	3.086272

## Table 8. Heteroscedasticity Output

. hettest

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of numatt
```

```
chi2(1) = 0.45
Prob>chi2 = 0.5032
```

. estatimtest

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity   Skewness   Kurtosis	53.65 13.68 0.64	42 8 1	0.1073 0.0904 0.4245
+ Total	67.97	51	0.0562

## Table 9. Omitted Variable Output

. ovtest

Ramsey RESET test using powers of the fitted values of numatt Ho: model has no omitted variables F(3, 137) = 1.83Prob> F = 0.1447

Variable	1	VIF	1/VIF
subjknow		1.38	0.726387
objknow	I	1.18	0.850000
female	1	1.08	0.922655
Age	1	1.08	0.924547
Earn	1	1.07	0.933201
occasions	1	1.06	0.944178
university	1	1.05	0.956581
	+		
Mean VIF	1	1.15	

## Table 11. Functional Form Test and Plots Output

. swilk e

normal data	st for	W test	piro-Wilk W	Shaj		
Prob>z	Z		V	W	Obs	Variable
0.15895	0.999	54	1.554	0.98657	149	e

## Figure 4. Histogram – Normality Testing Output





Figure 6. Inverse Normal Q-Q Plot with Fitted Values Output



# Appendix H: Cross-tabs with Chi-square – Extrinsic versus Intrinsic Attributes within Objective and Subjective Wine Knowledge Testing Output

Case Processing Summary									
Cases									
	V	alid	Missing		Total				
	N	Percent	N	Percent	N	Percent			
Intrinsic * ObKnow	149	100,0%	0	0,0%	149	100,0%			

Table 12. Objective Knowledge Descriptive Statistics Output

## Table 13. Objective Knowledge Crosstabulation Output

			ObK	Total	
			1,00	2,00	
	0	Count	77	55	132
0 Intrinsic 1	% within ObKnow	88,5%	88,7%	88,6%	
	Count	10	7	17	
	% within ObKnow	11,5%	11,3%	11,4%	
Total		Count	87	62	149
TOLAI		% within ObKnow	100,0%	100,0%	100,0%

Intrinsic	*	ObKnowCrosstabulation

### Table 14. Objective Knowledge Chi-square Output

Chi-Square Tests										
	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.					
		-	(2-sided)	(2-sided)	(1-sided)					
Pearson Chi-Square	,001 <sup>a</sup>	1	,969							
Continuity Correction <sup>b</sup>	,000	1	1,000							
Likelihood Ratio	,001	1	,969							
Fisher's Exact Test				1,000	,592					
Linear-by-Linear Association	,001	1	,969							
N of Valid Cases	149									

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.07.

b. Computed only for a 2x2 table

## Table 15. Objective Knowledge Symmetric Measures Output

		Value	Approx.
			Sig.
Nominal by Nominal	Contingency Coefficient	,003	,969
N of Valid Cases		149	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Figure	7.	Objective	Knowledge	Bar	Chart	Output
		- J				- · · · · ·



Table 16. Subjective Knowledge Descriptive Statistics Output

······································									
		Cases							
	Valid		Missing		Total				
	N	Percent	Ν	Percent	Ν	Percent			
Intrinsic * SubKnow	144	96,6%	5	3,4%	149	100,0%			

**Case Processing Summary** 

## Table 17. Subjective Knowledge Crosstabulation Output

			Subk	Total	
1			1,00	2,00	
Intrinsic	_	Count	63	64	127
	0	% within SubKnow	86,3%	90,1%	88,2%
	1	Count	10	7	17
		% within SubKnow	13,7%	9,9%	11,8%
Total		Count	73	71	144
Total		% within SubKnow	100,0%	100,0%	100,0%

Intrinsic \* SubKnowCrosstabulation

## Table 18. Subjective Knowledge Chi-square Output

	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.
			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	,510 <sup>a</sup>	1	,475		
Continuity Correction <sup>b</sup>	,208	1	,649		
Likelihood Ratio	,512	1	,474		
Fisher's Exact Test				,607	,325
Linear-by-Linear Association	,506	1	,477		
N of Valid Cases	144				

#### **Chi-Square Tests**

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.38.

b. Computed only for a 2x2 table

Table 19. Subjective Knowledge Symmetric Measures Output

		Value	Approx.
			Sig.
Nominal by Nominal	Contingency Coefficient	,059	,475
N of Valid Cases		144	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.





# Appendix I: Chi-square test with Cross-tabs on Country of Origin and Knowledge Testing Output

Table 20. Country of Origin and Subjective Knowledge Descriptive Statistics Output

	Cases							
	V	'alid	Mis	ssing	Total			
	N Percent		Ν	N Percent		Percent		
country1 * SubKnow	144	96,6%	5	3,4%	149	100,0%		

**Case Processing Summary** 

Table 21.	Country o	f Origin	and Subjective	e Knowledge	Crosstabulation	Output
	-	0	5	0		1

			Subk	Total	
			1,00	2,00	
country1	0	Count	43	38	81
	0	% within SubKnow	58,9%	53,5%	56,2%
	1	Count	30	33	63
		% within SubKnow	41,1%	46,5%	43,8%
Total		Count	73	71	144
TULAI		% within SubKnow	100,0%	100,0%	100,0%

country1	*	SubKnowCrosstabulation	
country r		Subranoweressiabulation	

Table 22. Country of Origin and Subjective Knowledge Chi-square Output

Chi-Square Tests								
	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.			
			(2-sided)	(2-sided)	(1-sided)			
Pearson Chi-Square	,424 <sup>a</sup>	1	,515					
Continuity Correction <sup>b</sup>	,233	1	,629					
Likelihood Ratio	,424	1	,515					
Fisher's Exact Test				,615	,315			
Linear-by-Linear Association	,421	1	,517					
N of Valid Cases	144							

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.06.

b. Computed only for a 2x2 table

Symmetric Measures							
	Value	Approx. Sig.					
Nominal by Nominal Conting	ency Coefficient ,054	,515					
N of Valid Cases	144						

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Figure 9. Country of Origin and Subjective Knowledge Bar Chart Output



Table 24. Country of Origin and Objective Knowledge Descriptive Statistics Output

cace i recoccing cannary									
	Cases								
	V	alid	Missing		Total				
	N Percent		Ν	Percent	Ν	Percent			
country1 * ObKnow	149	100,0%	0	0,0%	149	100,0%			

Case	Processing	Summary
Case	FIOCESSING	Summary

Table 25. Country of Origin and Objective Knowledge Crosstabulation Output

-			ObKnow		Total
			1,00	2,00	
country1	0	Count	49	37	86
		% within ObKnow	56,3%	59,7%	57,7%
		Count	38	25	63
	1	% within ObKnow	43,7%	40,3%	42,3%
Total		Count	87	62	149
TULAI		% within ObKnow	100,0%	100,0%	100,0%

country1 \* ObKnowCrosstabulation

Table 26.	Country of	Origin and	Objective	Knowledge	Chi-square	Output
	2	0		0	1	1

Chi-Square Tests						
	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.	
			(2-sided)	(2-sided)	(1-sided)	
Pearson Chi-Square	,167 <sup>a</sup>	1	,683			
Continuity Correction <sup>b</sup>	,058	1	,810			
Likelihood Ratio	,167	1	,683			
Fisher's Exact Test				,738	,406	
Linear-by-Linear Association	,166	1	,684			
N of Valid Cases	149					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.21.

b. Computed only for a 2x2 table

Table 27. Country of Origin and Objective Knowledge Symmetric Measures Output

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	,033	,683
N of Valid Cases		149	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.


Figure 10. Country of Origin and Objective Knowledge Bar Chart Output

## Appendix J: Importance of Product Attributes in the Decision Making Process Testing Output

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
price	40.012	148	.000	3.436	3.27	3.61
color	50.582	148	.000	4.134	3.97	4.30
type	38.693	146	.000	3.653	3.47	3.84
berbe	30.928	147	.000	3.243	3.04	3.45
taste	56.469	146	.000	4.429	4.27	4.58
brand	38.042	145	.000	3.493	3.31	3.67
origin	39.730	145	.000	3.610	3.43	3.79
test	30.134	145	.000	3.055	2.85	3.26
award	28.389	146	.000	2.265	2.11	2.42
profadv	31.469	146	.000	2.769	2.59	2.94
recom	37.117	146	.000	3.129	2.96	3.30
label	29.447	146	.000	2.612	2.44	2.79
foodmatch	37.800	145	.000	3.562	3.38	3.75
organprod	29.714	145	.000	3.041	2.84	3.24

Table 28. Means of Attributes Output