

Consumers' perception about new wines - case of Muscat rosé of Poreč (Istria, Croatia)

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1. Introduction

The world wine market is going throughout fundamental changes. New trends are emerging, affecting the competitiveness of wine companies. Changes are most profound in areas of distribution, technology, marketing and consumer lifestyles (Bruwer et al., 2002, Martínez et al., 2006, Loureiro, 2003). In this changing environment understanding how consumers choose wine continues to be a complex problem for researchers and practitioners alike. Many researchers agree that understanding consumer tastes and being able to assign wines to specific taste profiles is an important goal for wine producers and researchers (Lockshin et al., 2006).

It is also well known that in order to develop successful new products, companies should gain a deep understanding of "the voice of consumer". New product development (NPD) is often recommended as a suitable strategy to build competitive advantage and long-term financial success in today's global food markets. According to Costa and Jongen (2006), new products in food and beverage industry are very rare maybe because it is often said that eating preferences and habits have slow rate of change, but consumers' food consumption behaviour does change, faster today than ever. Also, the growing importance of values such as quality of life, well-being or protection of the planet environment are

Abstract

Many researchers pointed out that the lack of marketing knowledge and of the knowledge of new technologies can be the reason for product failure. The aim of the research presented in this paper was to find out the consumers' preferences about wines made from autochthonous grape variety from Istria, Croatia, namely the Muscat rosé of Poreč. The paper also gives a review of the background literature about wine quality and segmentation in the wine market and presents the results of a research carried out in Croatia. The study indicated that the sweet wine got the best grade and that consumers would like to buy this wine as a gift and/or for a special occasion; thus, this can be the best way to offer this wine to consumers. If winemakers would like to produce different types of wine from this variety, they should create different marketing strategies.

Key words: wine, consumers' preferences, segmentation, Croatia, Muscat rosé of Poreč.

Résumé

Plusieurs chercheurs ont démontré que des connaissances insuffisantes dans le domaine du marketing et des nouvelles technologies peuvent être à la base de l'échec d'un produit. Le but de cette étude est de découvrir les préférences des consommateurs à l'égard des vins issus d'un cépage local de l'Istrie, Croatie, à savoir le Muscat rosé de Poreč. En même temps, on passera en revue les travaux de la littérature portant sur la qualité du vin et sur la segmentation du marché des vins et on présentera les résultats des recherches réalisées en Croatie. L'étude permettra de démontrer que le vin doux est le plus apprécié et que les consommateurs achèteraient ce produit pour une occasion spéciale et/ou pour l'offrir comme cadeau. Par conséquent, celle-ci pourrait être la manière la plus appropriée d'offrir ce type de vin aux consommateurs. Cependant, si les producteurs entendent produire différents types de vin en utilisant ce cépage, ils devraient envisager des stratégies de marketing différentes.

Mots-clés: vin, préférences des consommateurs, segmentation, Croatie, Muscat rosé de Poreč.

influencing the way consumers perceive and evaluate foods and production systems (Costa and Jongen, 2006). The region of origin can also be a choice factor for wine (Famularo et al., 2010). On the other hand, lack of marketing knowledge and knowledge of new technologies tended to be associated with product failure (Stewart-Knox and Mitchell, 2003). The main goal is to try to understand how consumers choose wine, then we have a much better framework to decide pricing, packaging, distribution, advertising and merchandising strategies. Among others, some authors think that consumer's choice for wine is more complex than the choice for many other products (Lochshin, 2003) and is changing during the life time (Melo et al., 2010).

Regional food products have important role, among other things, in keeping alive local traditions and avoiding the loss of social and cultural diversity stemming from globalization (Sodano, 2001).

This paper seeks to find out how consumers like new wines made from old almost extinct grape variety Muscat rosé from Poreč. Muscat rosé from Poreč is an autochthonous red grape variety from Istria peninsula and its roots are from Poreč area. In ancient times, grapes from this variety were used for the production of dessert wine for special occasions, like a gift to a bishop, doctor etc. In the last 30 years this variety was left out from the intensive production and almost forgotten. Nowadays, there are only a few producers who produce wine from Muscat rosé of Poreč in small quantities, but the in-

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terest in growing and making wine from Muscat rosé of Poreč is rising. There are more reasons why this grape variety is interesting; first of all, it is an autochthonous variety and wine made from this grape is a product with potential of new wine brand on the domestic tourist market, and the second is the possibility of producing different wine products such as dry, half dry, half sweet, sweet and dessert wine.

2. Literature review

2.1. Wine quality

According to the literature review, there are many important attributes that make wine acceptable on the market. According to Bruwer et al. (2002) 'success factors' include:

- product development, brand building and maintenance;
- innovation in grape growing, winemaking and marketing;
- sensitivity to consumer needs and wants;
- strategy of brand development and growth in the domestic market.

Marketing theory defines a product as a package of benefits that satisfies a consumer's requirement (Spawton, 1991). Traditionally, the wine industry viewed product quality as the important element for maintaining or increasing the competitiveness of businesses. As a result, according to Urlich et al. (2005) quality wines nowadays have become the rule rather than the exception. Also, quality is central issue for wine producers as well as consumers (Hertzberg and Malorgio, 2008) and in almost every growing area around the world wine producers achieve high qualities.

In the case of quality wine, the literature reports different product definitions of wine. Wine is perceived as a tangible and intangible product. Tangible characteristics are colour, smell, taste and flavour. However, consumers are seeking other benefits, which are intangible characteristics, such as the belief that they are enjoying a quality product; the pleasures of learning and being knowledgeable or the status attached thereto (Martínez et al., 2006). Also wine quality could be characterised with intrinsic and extrinsic attributes. Intrinsic attributes include vintage, grape variety, year and sensory characteristics (taste, flavour and colour); extrinsic attributes include price, packaging, labelling and brand name, which can be altered without actually changing the product (Quester and Smart, 1998; Lochshin, 2003; Martínez et al., 2006; Cayot, 2007).

Sensory analysis has prevalent importance in the case of wine. Wine tasting is regularly used to check the quality of wines. According to Cayot (2007), wine tasting is often surrounded by a cloud of mystery and the vocabulary developed by experts for wine tasting is extensive but sometimes more poetic rather than precise (Cayot, 2007).

How consumers perceive and understand quality has a great impact on the wine market (Loureiro, 2003). In their research Verdú Jover, Lloréns Montes and Fuentes Fuentes (2004) found seven dimensions to measure the perceived quality of red wine: origin, image, presentation, age, harvest, sensitivity and acuteness (Martínez et al., 2006).

The literature mentions the following as the most important label attributes: price, region of origin, brand name, experience or the situation of consumption and award (gold, silver or bronze medal) (Orth et al., 2005; Lockshin et al., 2006; Charters and Pettigrew, 2006). Also, regional awareness increases the level of sales for both small and large brands according to Lochshin et al. (2006) research.

2.2. Segmentation in the wine market

Wine as a product has become a lifestyle beverage, more acceptable and desired by a wide range of consumers. Thomas and Pickering (2003) refer that wine purchasing is a behavioural process involving choice and preference and there is an increasing need to understand wine consumer values, consumption patterns and profiles. Market segmentation is a tool that examines the market of today with a view to understanding how consumers choose wines; after all, knowing wine consumer's needs, preferences, attitudes and buying behaviour is needed in order to identify market segments and to try to maintain present and future business profitability (Gil and Sánchez, 1997; Bruwer et al., 2002). Consumer behaviour in purchase choice is a complex process which may be divided in several stages: problem recognition, seek of information, choice evaluation, election and purchase (Kotler, 1999). According to Gil and Sánchez (1997) the choice evaluation, in which consumer preferences play an important role, is increasing its importance in the wine consumer's decision as this product is showing a higher perceived customer value.

The wine industries have been subjected to all types of segmentation; the main elements in consumer's purchasing behaviour for wine are based on Lochshin (2003) and on some other authors' previous studies:

- Taste – as a dominating factor for wine consumers,
- Brand – as a sum of all the images that people have in their heads about the particular company,
- Price – as an important cue to quality when there are few other cues available, when the product cannot be evaluated before purchase, and when there is some degree of risk of making a wrong choice,
- Origin – as one of the most important variables influencing consumer's decision to purchase wine,
- Packaging – includes the front label, back label, bottle and bottle shape, cask, package and awards,
- Quality – a characteristic of the wine that is both difficult to define and to communicate,
- Situation – different consumption situations amplifying or changing the importance of different wine attributes,
- Perceived risk – which includes functional risk, such as the taste of the wine; social risks (being embarrassed in front of family and friends), financial risk (cost of wine) and physical risk (hangover in the following morning),
- Involvement – product involvement, brand involvement and purchase involvement.

It is known that involvement level has a significant impact on drinker's concepts of wine quality; involvement seems fundamental to the issue of understanding wine qual-

ity (Quester and Smart, 1998; Charters and Pettigrew, 2006).

Bruwer et al. (2002) also refer wine-related lifestyle as a conceptual model that consists of five dimensions that contribute to the link between wine and values of a Wine Related Lifestyle (WRL) measurement instrument. These dimensions are: wine consumption situations, ways of shopping, quality/attributes, drinking rituals and consequences of wine consumption.

Consumer segmentation is usually based on a combination of demographic (age, status, family size and composition, occupation, education, etc.) and psychographic (psychological attributes that constitute a person's lifestyle) information (Blankenship et al., 1998) and numerous researchers have sought to apply lifestyle segmentation to the wine market (Spawton, 1991; Hall and Winchester, 2000; Thomas and Pickering, 2003; Drummond and Rule, 2005).

Some other research works also refer that wine, as compared with other alcoholic drinks, are associated with a higher intake of fruit, fish, cooked vegetables, salad, and the use of olive oil for cooking by both men and women. After all wine drinking is associated with an intake of a healthy diet (Tjønneland et al., 1999) and that benefits from alcohol consumption arise from the consumption of wine, especially red wine (Wollin and Jones, 2001).

Also wine purchases can be segmented as adventurous, confident wine purchasers, no nonsense, everyday wine purchasers and conservative wine purchasers (Johanson and Bastian, 2007).

2.3. Wine production in Croatia

According to the Statistical Yearbook, the total agricultural area of Croatia is 3.137 million ha, of which 1.035 million ha (33%) is in the state ownership and 2.102 million ha (67%) in private ownership and of this 57,000 ha are vineyards. The majority of grapes grown are wine-making varieties and, in recent years, newly planted vines and modern viticulture technologies are being adopted to meet consumer demand. A rising proportion of wines are being marked with geographical indications and the relative share of quality wines has been rising and that of table wines falling. According to the Grape and Wine Register, the leading 33 wine cellars account for 79% of total trade (CEEC AGRI POLICY, 2006).

The development of Croatian viniculture is significantly hindered by vineyard fragmentation (85% of Registered producers have vineyards of under 1 ha). Most vineyards (65%) are over 25 years old. Some 40 different grape varieties are grown in significant quantities, with Graševina bijela (26.5%), Plavac mali (11.6%) and Malvazija istarska (10%) together making up nearly half of total output (CEEC AGRI POLICY, 2006).

According to OIV, Croatia was in 2007 on the 21st place in the world as wine producing country with 1.365 (thousands of hl). Italy ranked first with 45.981 (thousands of hl), France 45.672 (thousands of hl) and Spain with 34.755 (thousands of hl) (OIV, 2007).

3. Wine market in Croatia

Wine consumption in Croatia was estimated at 27 litres per head in 2010 (CEEC AGRI POLICY, 2006). If we compare these data with the largest wine consumers such as France (52.1 l per head (l/h) in 2007), Italy (45.0 l/h), Portugal (42.5 l/h), Spain (29.7 l/h), and our neighbors in Slovenia (34.2 l/h) (OIV, 2007), this was a smaller consumption but somewhere in the middle of the world scale. The Croatian Institute of Viticulture & Oenology reported in 2007 the following data: 55.4% of quality wine, 38.5% table and 3.6% premium wines in registered trade in the year 2006; the rest goes to other products made of grape and wine 2.4%, sparkling and special wines 0,2%. Thus it can be said that according to these parameters Croatia is a developed wine country, especially in the region of western Balkan. In 2008 wine trade was 609.000 hl, wine imports in Croatia were 143.680 hl. Total export of wine in 2007 was 3.088 tonnes, a value of 13.7 million USD as compared to the year 2006 representing a 2% decrease and in value increased by 21% (Source: CBS, 2008). The value of wine exports in the period from 2000 until 2007 constantly increased, except in the year 2005, when it decreased, while the quantity decreased from 2001 till 2007 (Ministry of Agriculture, Fisheries and Rural Development, 2011).

4. Methodology

This paper seeks to find out which from four offered wines are preferred by some groups of consumers and which wine they like the most. For the purpose of the research special wines were produced and an ad-hoc questionnaire was created. Questionnaire has 16 open and close-ended questions. The questionnaire was divided into several parts. The information asked from the respondents included socio-demographic variables (gender, age, level of education, profession), economic aspects (household income), question about frequency of wine consuming and conditions in which most of them drink wine and which wine they prefer. After tasting the respondents were asked to evaluate wines. Wines were made especially for this study with the following characteristics: all wines were made from the same variety Muscat rosé of Poreč, all wines had 11.5% alcohol and 7.5 g/l of total acid, the only difference was the amount of sugar. Traditionally, Muscat rosé of Poreč was produced with the residual sugar as semi-dry, semisweet or sweet. Also, for most consumers the sweetness of wine creates the sensation of pleasure, so we decided to create 4 types of wines with different residual sugar while for all the other parameters wines were the same. Moreover, during tasting the basic impressions of Muscat rosé of Poreč on consumers were a characteristic smell, dried petals of red rose, and sweetness. Wine number 1 had 1 g/l of residual sugar, wine number 2 had 10 g/l, wine number 3 had 20 g/l and wine number 4 had 50g/l of residual sugar. The research was carried out in 5 different groups that were conducted by researchers. Groups consisted of 12-24 people at the same time and the wines were tested on 5 occasions. Each participant was given his glass for tasting, and after compiling the

first part of the questionnaire the first wine was tasted. When all respondents evaluated the first wine, they were asked to evaluate the second wine, and so on. Wines were tasted in the following order: dry Muscat rosé of Poreč (wine with 1g residual sugar per liter), followed by semi-dry wine (with 10 g/l of residual sugar), semisweet (with 20 g of residual sugar per liter) and the last was a sweet wine with 50 g/l of residual sugar. In the questionnaire, a 7 point Likert scale was used ranging from 1 to 7, for example 1= wine was poor and 7= wine was excellent. The respondents were asked to evaluate each wine with grade 1 to 7. After that, the respondents were asked to rank the wines, for the case that two or more wines receive the same grade. The following questions in the questionnaire were for the best rated wine in their opinion, as follows: on which occasion they would consume the wine and for which opportunity they would purchase the wine rated as the best. Also, for the best wine the respondents were asked to choose the price category. The geographic scope of the work was Istrian County and the data were collected during April and May 2006. Survey included 83 consumers. Respondents were older than 18 years. Participation was voluntary. Obtained data were analysed with standard statistical methods, descriptive statistics, X^2 (Chi-square), and correlation analysis. For data analysing SPSS statistical software and MS Excel were used.

5. Results

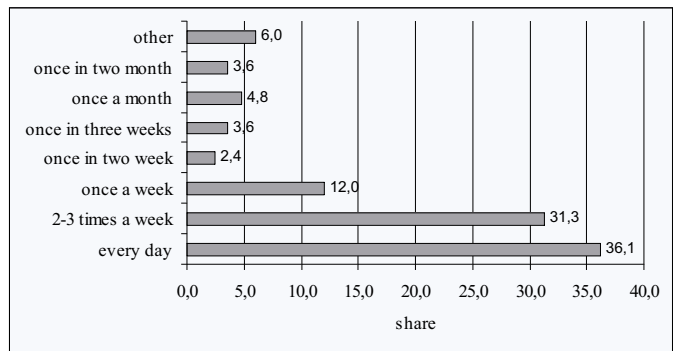
5.1. Socio demographic and economic characteristics of sample

The survey identified the following socio-demographic characteristics of respondents: gender, age, occupation, education level and average monthly household income. The sample included 66.3% of men and 33.7% of women over 18 years. Most of them were at the age of 18-35 years which makes 55.5% of total respondents. The largest proportion of respondents (56.6%) has completed college and higher education. About occupation, the respondents were classified as students of winemaking, wine experts (enologists), agronomists, vintners, students of agricultural economics and other participants with professions unrelated to wine. The largest proportion of respondents (51.8%) was not professionally related with wine growing and winemaking. As to the average monthly household income of respondents, most of them have an income of 667-2.066 € (5.001-15.000 kuna) and together they make up 69.8% (Appendix 1).

5.2. Sample segmentation according to the consumption frequency

A question to determine interviewer's consumption frequency was included in the survey. This question had (8) response choice (daily, 2-3 times per week, once a week, once in two weeks, once in three weeks, 1 time per month, 1 time every two months and other). Of the total number of respondents most of them answered that they drink wine every day (36.1%), followed by those who drink wine 2-3 times a week (31.3%) and as in the order reported in Figure 1.

Figure 1 - Interviewer's consumption frequency.



Source: Research results.

With regard to gender, there was a significant statistical difference in relation to frequency of wine drinking $X^2 (7,83) = 17,075$, $p = 0,017$, however, $R = 0,015$, suggesting little difference in preferences. Of the total number of men most of them consumed wine daily 47.3%, then 29.1% of men consumed wine 2-3 times per week, 9.1% consumed wine once a week, the rest consumed less frequently than once a week (14, 5%). Among women, 14.3% consumed wine daily, 35.7% 2-3 times per week and 17.9% one time in a week, and 32.1%.less than that.

There were no significant statistical differences in frequency of wine drinking in relation to age ($X^2 (63,83) = 71,689$, $p = 0,212$), occupation ($X^2 (35,83) = 38,037$, $p = 0,333$), education level ($X^2 (28,83) = 16,706$, $p = 0,954$) and level of household income ($X^2 (42,83) = 34,193$, $p = 0,799$).

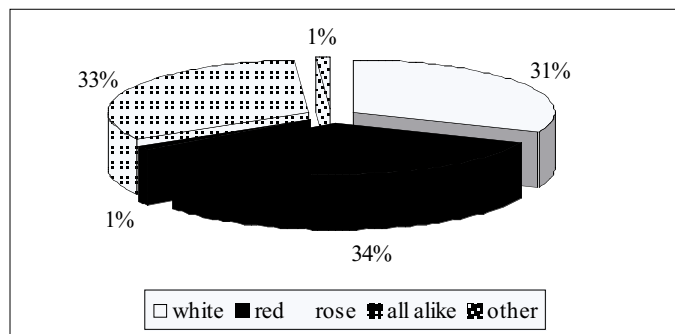
If we use the classifications of Martinez at al. 2006, we can say that the first segment, with a size of 79% is composed of *regular/habitual* consumers, that is to say, those who consume wine twice or more per week. The second of the segments, 11% of the population, is formed by *occasional* consumers, that is to say, those who drink wine once or twice per month. The third segment is formed by *sporadic* consumers meaning individuals who consume wine on rare occasions, it includes 10% of the sample population.

5.3. General preferences towards wine

Occasions in which respondents usually drink wine were with food 63.9%, on the celebrations and ceremonies 13.3%, 21.7% along with friends and other (1.2%). Respondents are equally favored by red and white wines, as can be seen in Figure 2 and it can be concluded that the patterns were well-chosen considering the preference of wine.

According to gender there was a significant statistical difference in the wines preferences ($X^2 (4,83) = 14,200$, $p = 0,007$), however, the effect of differences in preferences was small ($R = -0,178$). In the sample women like more red wines (57.1%), followed by white wines (25.0%), they like all wines equally in 14.3% and finally rosé wines (3.6%). Men mostly like all wines equally (41, 8%), followed by white wines (34.5%), red wines with 21.8% and in one case the answer was *do not like wine* (1.2%). In relation to the

Figure 2 - Preferences towards wine.



Source: Research results.

age of the respondents there was no statistical difference in obtained answers ($X^2_{(36,83)}=29,456, p=0,771$).

According to the occupation there was a significant statistical difference related to which wine respondents prefer $X^2_{(20,83)}=39,322, p=0,006$, however, the difference was very small $R=-0,09$. Students of winemaking liked all wines (58.33%), those who have jobs unrelated to wines preferred red wines (39.53%), vintners like all wines (33.33%); students of agricultural economics mostly prefer white wines (60%).

Considering the economic characteristics of the respondents, red wines prefer those with average household incomes up to 667 € (5 000 HRK) (62,5%) and those with income level of 667 – 1 377 € (or 5 001-10 000 HRK) (43,33%). White wines are preferred by respondents with monthly household income of 2 066-2 755 € (15 001-20 000 HRK) (44,44%) and all wines alike are loved by those with an income of 2 755-3 444 € (20 001-25 000 HRK) (66,67%), the same as those with income from 3 444 to 6 887 € (25 001-50 000 HRK) (66,67%) and those with average monthly income of the households more than 6 887 € (50 001 HRK) (66,67%). According to the average monthly households income level, there was a significant statistical difference in relation to preference of wine $X^2_{(24,83)}=65,497, p=0,000$, but the differences were very small ($R=0,209$).

5.4. Opinions about four different wines from Muskat rosé of Poreč variety

Wines offered for evaluation received the following average grades (Table 1).

| Wine from Muskat rosé of Poreč variety | Mean | SD | St. Error |
|---|------|------|-----------|
| dry wine (wine with 1g of residual sugar per liter) | 3,61 | 1,21 | 0,13 |
| semi-dry wine (with 10 g of residual sugar per liter) | 3,63 | 1,27 | 0,14 |
| semi-sweet wine (with 20 g of residual sugar per liter) | 4,13 | 1,25 | 0,14 |
| sweet wine (with 50 g of residual sugar per liter) | 4,88 | 1,34 | 0,15 |

Source: Research results.

After evaluation, the respondents were asked to rank the wines in order from the best down, reporting the case in which two or more wines obtain the same grade (table 2.)

The majority of respondents (67.5%) considered that the best

Table 2 - The best wine made from Muskat rosé of Poreč variety according to the respondent's opinion.

| Wine from Muskat rosé of Poreč variety | Mean | SD | St. Error |
|---|------|------|-----------|
| dry wine (wine with 1g of residual sugar per liter) | 3,61 | 1,21 | 0,13 |
| semi-dry wine (with 10 g of residual sugar per liter) | 3,63 | 1,27 | 0,14 |
| semi-sweet wine (with 20 g of residual sugar per liter) | 4,13 | 1,25 | 0,14 |
| sweet wine (with 50 g of residual sugar per liter) | 4,88 | 1,34 | 0,15 |

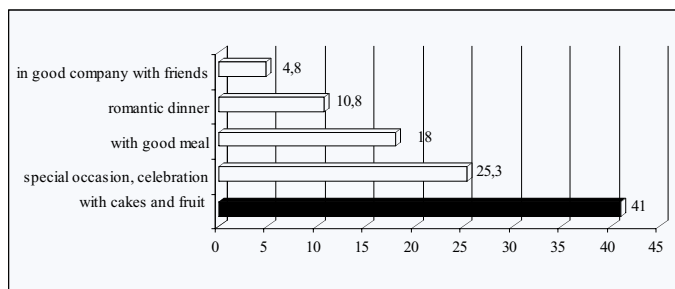
Source: Research results.

wine was sweet wine (wine number 4); semi-dry wine (wine number 2) was the best for only 7.2% of the respondents. According to the ranking, there were no statistically significant differences in responses in relation to socio-demographic characteristics, economic characteristics, frequency of wine drinking and wine preferences.

5.5. Opinions about the best wine from Muskat rosé of Poreč

The occasions in which respondents would like to consume wine that they rank as the best were in most cases with cakes and fruit (41%), on special occasions (25.3%), and other as indicated in figure 3.

Figure 3 - Occasions in which the respondents would like to consume wine they rank as the best.

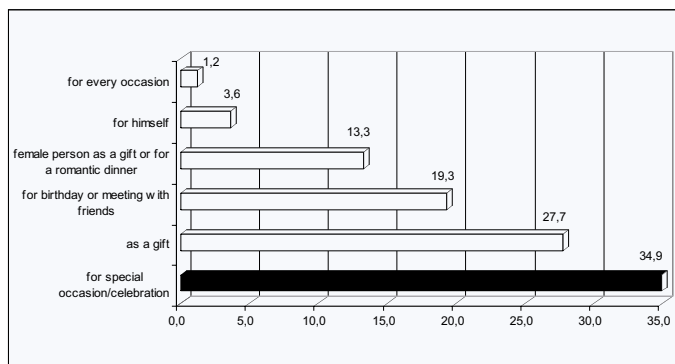


Source: Research results.

According to consumption occasions, there were no statistically significant differences in responses for choosing the preferred wine.

When the respondents were asked for which occasion they would buy wine that are evaluated as the best, the answer mostly was for a special occasion or celebration

Figure 4 - For which occasion the respondents would like to buy the best wine.



Source: Research results.

Table 3 - Price category for the best evaluated wine.

| Price of wine | Frequency | Percent |
|--------------------------|-----------|---------|
| 2,2-4,1 €* (16-30 HRK) | 10 | 13,0 |
| 4,2-6,2 € (31-45 HRK) | 20 | 26,0 |
| 6,3-8,3 € (46-60 HRK) | 20 | 26,0 |
| 8,4-10,3 € (61-75 HRK) | 14 | 18,2 |
| 40,4-12,4 € (76-90 HRK) | 9 | 11,7 |
| 12,5-16,5 € (91-120 HRK) | 4 | 5,2 |
| Total | 77 | 100,0 |

Source: Research results, * 1 € = 7,26 HRK.

(34.9%), followed by (27.7%) as a gift for a birthday or meeting with friends (19.3%) which is also a pleasant occasion, and continued as indicated in figure 4.

From table 3 it can be seen that more than half of respondents are prepared to pay between 2,2-4,1 € (31-60 HRK) for the mentioned wine (52%), but also a large number of respondents 35.1% were willing to set aside more than 8,4 € (61 HRK) for the best evaluated wine (table 4).

There were no statistically significant differences in responses in relation to socio-demographic characteristics, economic characteristics, frequency of wine drinking and wine preferences.

6. Conclusion

Survey of preferences regarding the wines produced from the variety Muscat rosé of Poreč, was conducted in a wider area of Poreč (Istria, Croatia), the area from which this variety originally came from. Most respondents were young people under 35 years of age. According to the frequency of wine consumption, it can be said that the majority of respondents were of regular/habitual consumers, that is to say, those who consume wine twice or more per week. In relation to gender there was a statistical difference in responses in relation to preferences, but it was very small.

On the basis of the study it was concluded that the respondents prefer the sweet Muscat rosé of Poreč that was evaluated with the best grade (4.88) and according to the ranking, 67.5% of respondents selected this wine as the best. In most cases, respondents would like to consume this wine on special occasions and/or with cakes. Considering the price the respondents classified this wine in the category of 4,2-8,3 € (31-60 HRK).

Obtained results should be taken into account in creating future strategies for the production of this wine. As said at the beginning of the paper, from this grape variety it is possible to produce different wines, and this variety is well combined with other varieties in wine production. Considering the research conducted, and the current market trends, increasing demand for original and typical products, the wine produced from this variety has the potential to become part of the image of the area, especially if we take into account that Istria is the most developed tourist region in Croatia. For creation of a new wine, it is advisable to take into account the obtained results. The study indicated that sweet wine made from Muscat rosé of Poreč, prepared for the market as a gift and/or for a special occasion, got the best grades; thus this can be the best way to offer this wine to consumers.

If vintners want to produce different types of wine from this variety, then they should have a different marketing strategy. It is important to recognize that this product has the potential to become a recognizable and interesting tourist product of the region because of its origin and specific characteristics.

Limitations and further recommendations

Limitation of the research was a relatively small sample that was determined by the amount of wine produced. Wine was produced in the wine cellar of the Institute of Agriculture and Tourism in minivinifications. The results obtained can be a guideline in creating the strategy of production and image building of new wines. Potential further study can be on the wider area and with larger number of consumers especially in the domestic tourist market.

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| Appendix 1. Sample structure | | | |
|---|---|--------------------------|---------|
| Selected features | | Frequency | Percent |
| Gender structure | Male | 55 | 66,3 |
| | Female | 28 | 33,7 |
| | Total | 100,0 | 100,0 |
| Age structure | 18-25 | 18 | 21,7 |
| | 26-30 | 16 | 19,3 |
| | 31-35 | 12 | 14,5 |
| | 36-40 | 10 | 12,0 |
| | 41-45 | 3 | 3,6 |
| | 46-50 | 9 | 10,8 |
| | 51-55 | 6 | 7,2 |
| | 56-60 | 4 | 4,8 |
| | 61-65 | 3 | 3,6 |
| | Over 66 | 2 | 2,4 |
| | Total | 83 | 100,0 |
| Education structure | Elementary school | 1 | 1,2 |
| | Secondary school | 30 | 36,2 |
| | Polytechnic school | 5 | 6,0 |
| | College and higher | 47 | 56,6 |
| | Total | 83 | 100,0 |
| Occupation | Enologist | 3 | 3,6 |
| | Vintner | 3 | 3,6 |
| | Student of Faculty of Agriculture - Agricultural Economics | 10 | 12,0 |
| | Student of Polytechnic of Rijeka - Professional Study of Winemaking | 12 | 14,5 |
| | Agricultural Engineering | 12 | 14,5 |
| | Other professions not related to vine production | 43 | 51,8 |
| | Total | 83 | 100,0 |
| | Average monthly income (household) | Up to 5.000 HRK (667 €*) | 8 |
| 5.001-10.000 HRK (667-1.377 €) | | 30 | 36,1 |
| 10.001-15.000 HRK (1.377-2.066 €) | | 28 | 33,7 |
| 15.001-20.000 HRK (2.066-2.755 €) | | 9 | 10,8 |
| 20.001-25.000 HRK (2.755-3.444 €) | | 3 | 3,6 |
| 25.001-50.000 HRK (3.444-6.887 €) | | 3 | 3,6 |
| more than 50.001 HRK (more than 6.887 €) | | 2 | 2,4 |
| Total | | 83 | 100,00 |
| Source: Research results | | | |
| * Exchanging rate for euro was 1 euro = 7,26 HRK on the May 5 th 2006 according to the central rate of the Croatian National Bank. (On the day of December 12 th 2011 rate was 1 euro = 7.51 HRK) | | | |