

THE WAY SERBIAN RAKIJA DISTILLERS EVALUATE THE QUALITY AND MARKET POSITION OF THEIR SPIRITS

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Abstract: This research aims to answer questions regarding how Serbian distillers evaluate the quality of their products and their chances on the market. The author also intends to determine the number of market segments for rakija, the Serbian national spirit. As this is the first known study of distillers and the economics of rakija production in Serbia, this research will be exploratory in nature. A quantitative survey of professional and hobbyist rakija distillers (N = 104) was conducted online in October 2021, which means that at the 95% probability level, the sampling error is below 10%. Rakija distillers rated the quality of their rakija as relatively high – 7.88 out of 10, while, conversely, they rated the market situation as relatively low – 2.67 out of 7. They are very enthusiastic about their future market prospects – 4.19 out of 7, but with current business approaches and their outdated production methods, their future does not look bright. It has been found that the rakija market in Serbia has three segments in terms of price: low-priced (up to 500 dinars), mid-priced (between 501 and 1000 dinars), and high-priced (1001 dinars and above). The median, or medium price of all rakija in our sample, was 750 dinars. Finally, a feasible strategy for the rakija market was synthesized by the SWOT/TOWS analysis. The research findings will be useful not only for distillers, but also important for agricultural policymakers as stricter standards need to be introduced to ensure rakija quality.

Key words: rakija, spirits, product quality, market position, segmentation, distillers.

Introduction

Rakija (also known as rakiya or schnapps) is a spirit-based beverage. Article 6 of the Serbian Law on Rakija and Other Alcoholic Beverages, *Official Gazette of RS*, No. 41/09, defines rakija as an alcoholic beverage produced by distilling fermented crushed fruit, pressed fruit, pomace or fruit marc, grapes, edible forest fruits, and other raw materials of agricultural origin with a minimal ethanol content

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of 15% v/v and with preserved specific sensory properties derived from the raw material from which it was produced. It is considered to be a traditional (Nikićević, 2021) and culturally endorsed national Serbian beverage, especially šljivovica (also known as slivovitz), which is a plum spirit or plum brandy, although other types of fruit spirits are also regularly distilled. Other southern and eastern European countries also produce spirits and consider them part of the national culture. Moreover, consumers continue to value regional origin (Schamel, 2009). Almost every culture has a long history of using and producing alcoholic drinks (McGovern, 2009). The harmful use of alcohol is increasingly recognized by public health authorities as a global public health problem of major concern. The harmful use of alcohol is responsible for an estimated 3 million or 5.3% of all deaths worldwide (World Health Organization, 2020). An estimated 95,000 fatalities in the United States are caused by excessive alcohol consumption each year, making it a leading cause of preventable death (Esser et al., 2020). However, in Serbia, the impact of alcohol abuse on life expectancy does not appear to be significant. Eliminating alcohol mortality resulted in only 0.63 years for men and only 0.15 years for women in Serbia (Marinković, 2020). The cultural pattern of alcohol consumption does not confirm that this mortality factor represents a significant burden amongst the general Serbian population.

The alcoholic consumption pattern in Serbia has a southern European or Mediterranean alcoholic consumption origin. It entails frequent but moderate alcohol consumption, which is nearly always limited to mealtimes and enjoyed among family and friends. These patterns of alcohol consumption have long been linked to a low risk of alcohol abuse (Agnoli et al., 2018). Serbs consume rakija either with meze, a selection of small dishes served as appetizers, or immediately prior to the main meal. The Mediterranean style of consuming wine and fruit spirit along with food is often held up as an example of responsible alcohol consumption, in contrast to the harmful habits of alcohol consumption more prevalent in northern Europe, where such drinks as beer and vodka are typically consumed without food. Unfortunately, this harmful style of alcoholic consumption is prevalent throughout the world, because vodka is the most commonly consumed drink worldwide. Despite competition from alternative alcoholic beverages such as beer and local cultural drink specialties, as well as competitive pressures within the industry, vodka remains the best-selling alcoholic spirit in the world (Musonera and Hemley, 2008). The United States alone consumes half of all vodka distilled.

Over the past four decades, the alcoholic beverage sector has undergone two significant changes (Mosher, 2012). Between 1970 and 1997, beer became the most popular beverage. Young people were mainly responsible for the beginning of this trend. In the late 1990s, young people's taste in beverages changed again, the growth of beer leveled out, and the distilled spirits business exploded. Youth marketing innovation was causal to this shift in the distilled spirits industry.

Furthermore, according to a study (Carew et al., 2017), the alcoholic beverage market is segmented into numerous price categories. The findings reveal two red wine segments and three white wine segments.

However, it seems that marketing creativity and innovations in the distilled spirits industry are not adequately supported by academic research. There are just a handful of respected journals that cover the marketing strategies used by the alcoholic beverage industry. Most academic papers focus on wine marketing (Lockshin and Corsi, 2012). A considerable amount of the associated research has employed unrepresentative and small samples. Simultaneously, other studies addressed the same or similar issues in different countries, regions, or time periods. Martinho (2021) examined the scientific literature on wine marketing. In the Web of Science, 87 studies were found, while 127 studies were found in Scopus (with 34 papers duplicated).

We have noticed that only a handful of academic papers have been published relating to the market challenges of the Serbian national alcoholic spirit rakija, and that among them, to the best of our knowledge, there is not a single quantitative study on rakija distillers and their market position and prospects. With this work, we fill this perceived gap, which is especially important considering that the UNESCO World Heritage List has recently been expanded. Namely, at the end of 2022, the Serbian plum rakija šljivovica was added to the list of intangible cultural heritage UNESCO under the name “Social practices and knowledge related to the production and use of traditional plum brandy – šljivovica”. In this contribution, for the first time, one can learn about the strength of the rakija that is put on the market. We found its achieved average price, as well as the unenviable position of distillers who have significant surpluses of goods, but also unrealistic expectations of their rakija business. We assume that the prestigious UNESCO status of the Serbian national alcoholic beverage and our contribution to this field will stimulate further research on this neglected national treasure, which is highly valued emotionally in Serbia but neglected commercially.

The distilled spirits industry in Serbia

In 2019, the global whiskey market was worth \$62 billion (Facts and Factors, 2020). With an estimated market growth of 6.5% (Facts and Factors, 2020), the market will be worth over \$100 billion by 2027. It is estimated that about 50 million liters of rakija are produced in Serbia (Agroklub, 2019), and that about 80% of the market is illegal (Business and Finances, 2021). Over 600 producers are officially registered (Politika Online, 2019), and 2,823 tons of spirits worth \$14.5 million are exported (and even more imported) (Info Press, 2020); this is a trivial 0.000000000233 (2.33×10^{-10}) value of the whiskey market. Moreover, the value of imports of alcoholic beverages is higher than the value of exports.

The cause of the poor position of rakija producers in the market is the “I do the same as my grandfather” attitude, who did not sell rakija but mostly drank it himself and gave it to friends; the grandfathers distilled superior plum varieties for rakija than those distilled today and did not use sugar in the production, only fruit (Adžić, 2021). The only thing that is similar today is that such producers who produce poor-quality rakija cannot surpass their grandfathers, and also make such products that basically no one will buy. The average retail price of rakija in Serbia is 586,66 dinars (Statistical Office of the Republic of Serbia, 2020), and industrial rakija made from ethanol and blended with artificial flavors rather than fruit dominates the market. In comparison, according to the same official statistics, the average prices per liter in dinars for other alcoholic beverages are 108.82 for lager beer, 261.76 for wine, and 832.49 for rakija, distilled from wine. Josif Vacić (2016) and the Ethnographic Museum organized the exhibition “Make and drink rakija”. The exhibition materials describe very realistically the history of rakija in Serbia. It is obvious that, historically, there has been no “golden” period for rakija in Serbia. Until the appearance of phylloxera in the 1890s, grapes were mostly grown and wine was consumed in Serbia. With the extinction of vineyards, Serbs reoriented to plum, which is still the most common fruit in Serbia. They also made rakija from plums, but it did not look like today’s beverages. It was drunk from larger glasses than wine, and had a lower alcohol percentage than wine (Vacić, 2016). Drinking a distilled drink with a lower percentage of alcohol was common throughout the region as protection against cholera due to contaminated water. Plums were not commonly used for rakija, but there were more profitable ways to earn money from the former. At the beginning of the 20th century, they were exported as jam in barrels, and then as prunes. The foreign market and consumers were looking for pitted prunes, but Serbia did not supply them. The unwillingness to change established patterns of behavior and adopt successful business methods has led to the plum rakija. This is, therefore, the third reserve, an obvious urgent choice that did not contribute to an increase in plantings, and the export results were far from the previous ones. When Alembic distillation was widely used worldwide, so-called peasant pots made of mud and wood were used in Serbia, and the rakija produced was far from what might be considered “good quality”. In addition, rakija was distilled in winter when there was no work in the countryside. The fermented fruit mash for rakija, which stood for a long time, did not contribute to the quality; on the contrary, it harmed it. Although Serbia became a part of the former Yugoslavia after the First World War, it remained impossible for such a low-quality rakija to succeed in the then larger market. The use of the Alembic method spread across Serbia after the Second World War, but the socialist system stifled any private initiative. Today, in addition to the 600 registered distilleries in the country, there are tens of thousands of distillation pot stills operated by small producers. It is obvious that rakija has never been a profitable business in Serbia.

Even today, when Serbia is among the top five countries in plum production, Serbian exports of plums and plum products are essentially insignificant (Matković, 2015). It is perhaps not surprising, therefore, that the areas under plum cultivation in Serbia are decreasing (Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia, 2019).

Finally, there are a number of questions to answer: what is Serbian plum rakija, what plum varieties is it made from, is there a standardized production procedure, yeast, pot still, is it stored in a barrel or a glass balloon, and how long is it typically aged? There are no standards in the industry and, significantly, no legislation. It is well known what cognac is made from, not only what grape variety, but also where the grapes were harvested. Plum rakija is a drink made from plums by a Serb, even if that Serb happens to live in Australia, and it seems completely irrelevant from which plums and by what method. This is neither a guarantee of quality nor a basis for building a brand. Today, in Serbia, consumable plum varieties, which are not suitable for rakija production, predominate. Požegača, the most famous Serbian plum variety with ideal distillation potential, has almost become extinct in the country (Matković, 2015). The plum rakija made by small producers also contains certain unwanted chemicals, of which methanol is of particular concern (Nikićević and Tešević, 2005). Šljivovica of undefined quality has no chance of being suitable for export, which is why Adžić (2021) suggests that producers turn to quince. There are many quality plants, and rakija has a better price. Quince is an industrial fruit for which there are not many alternative uses.

Kentucky, the home of bourbon, has almost ten times fewer distilleries (73) than Serbia, and produces two barrels of finished product per capita (Louisville Business First, 2018), that is 20 times more than the amount of rakija produced in Serbia. Can Serbia catch up with at least half, or even a quarter of bourbon production?

Material and Methods

The aim of this research is to answer the questions of how Serbian distillers might evaluate the quality of their products and what chances they have to sell them on the market. The quantitative part of the research was conducted in October 2021 in two Facebook groups, “Rakija i Rakijaši – original” and “Rakija i Rakijaši”. The goal of these groups is to gather hobbyists and professionals in a joint effort to produce top-quality rakija by combining traditional and modern technical-technological procedures. Accordingly, the sample was intentional and was formed by those who distill rakija, whether professionally or as hobbyists. These groups, together, have about 50,000 members. The responses were collected electronically via a questionnaire created using Google Forms. The questionnaire

consisted of 70 questions. The length of the questionnaire was conditioned by the fact that this is the first research to be conducted on this topic in Serbia. Participation in the study was voluntary and anonymous. The pilot survey was conducted in October 2021. The pilot survey showed that it was necessary to significantly simplify the questions in order to be understood by potential respondents, who were mostly rural farmers unfamiliar with technical terms. In the main study, responses were collected from 104 respondents (N = 104). The data were analyzed using IBM SPSS Statistics (Version 25).

Being the first research on distillers and, indeed, the first research on the rakija market in Serbia, this research effort was exploratory in nature. The following research question was posed: What can we conclude from the perception of Serbian rakija producers about the quality of their spirits and their market position and perspective? Another intention was to determine the number of market segments for rakija in terms of price, based on the results of previous surveys, official statistics and the results of this survey.

Results and Discussion

The answers were given by 104 respondents, which means that at the 95% probability level, the sampling error is 10%. This means that in the group of brandies, the results will be valid for 95 out of 100 brandies, and that the accuracy of the results may vary by 10% (more precisely, 9.6%) according to the formulas for determining the sample size for research activities (Israel, 2013; Krejcie and Morgan, 1970). There was only one female respondent in the sample. Furthermore, 79.8% of the respondents are employed. The majority of distillers have completed high school (34.6%) and are between 40 and 49 years old (34.6%). Every year, the respondents make rakija, most of them alone (59 respondents). In addition, 45% of distillers use only their own fruit as raw material, while 35% supplement the missing quantities with purchased fruit. Only one fifth of the distillers buy the entire amount of fruit as raw material on the market. Moreover, 77, or three-quarters, of the respondents own a pot still. The most common is a copper pot still with a volume of 100 liters, varying in size from 35 to 1000 liters. Only 19 distillers have plants that have been specially built for distillation, while 26 have adapted facilities. Twenty-two respondents placed the pot still in an unconditional facility, and most respondents in the sample, as many as 38, do not have a dedicated facility, effectively distilling rakija in their backyards. Out of 104 respondents, only eight stated that they were engaged in rakija distillation as a professional activity and had a registered distillery but were responsible for as much as 59% of the total quantity of rakija produced. Of these eight, only three distilleries employ additional workers.

Table 1. Descriptive statistics.

| | N | Minimum | Maximum | Total | Average |
|---|-----|---------|---------|------------|----------|
| Approximately how many liters of rakija do you distill from all fruits per year? | 104 | 4 | 25000 | 106,694.00 | |
| How strong is your rakija in the percentage of alcohol? | 102 | 30 | 57 | | 44.25 |
| If your rakija is distributed to retail outlets, what are the quantities in liters per year? | 5 | 20 | 1250 | 2,470.00 | |
| If your rakija is distributed to restaurants and bars, what are the quantities in liters per year? | 11 | 10 | 3500 | 11,710.00 | |
| If you sell rakija, how many liters of rakija do you sell per year from all fruits? | 40 | 20 | 10000 | 43,450.00 | |
| If you sell rakija, how many liters of rakija do you sell with an excise stamp, in liters per year? | 27 | 0 | 4000 | 12,402.00 | |
| If you sell rakija, what is the average price per liter in dinars? | 45 | 380 | 3900 | | 950.78 |
| Do you sell plum rakija and how many liters per year? | 39 | 20 | 20000 | 37,655.00 | |
| Do you sell plum rakija and at what price per liter in dinars? | 38 | 400 | 3000 | | 826.32 |
| How old is the largest amount of old plum rakija you put up for sale? | 18 | 2 | 20 | | 5.06 |
| Do you sell old plum rakija (2–5 y.o.) and how many liters per year? | 16 | 20 | 20000 | 26,370.00 | |
| Do you sell old plum rakija (2–5 y.o.) and at what price per liter in dinars? | 18 | 500 | 5000 | | 1,297.22 |
| Do you sell very old plum rakija (6+ y. o.) and how many liters per year? | 15 | 3 | 1000 | 4,286.00 | |
| Do you sell very old plum rakija (6+ y.o.) and at what price per liter in dinars? | 14 | 500 | 12000 | | 2,650.00 |
| How old is the oldest plum rakija you have for sale? | 18 | | 47 | | 9.28 |
| Do you sell quince rakija and how many liters per year? | 25 | 10 | 2000 | 8,845.00 | |
| Do you sell quince rakija and at what price per liter in dinars? | 26 | 800 | 3600 | | 1,507.69 |
| Do you sell grape rakija and how many liters per year? | 19 | 10 | 3000 | 5,500.00 | |
| Do you sell grape rakija and at what price per liter in dinars? | 20 | 380 | 1300 | | 670.50 |
| Do you sell apricot rakija and how many liters per year? | 17 | 10 | 3000 | 6,385.00 | |
| Do you sell apricot rakija and at what price per liter in dinars? | 18 | 800 | 2500 | | 1,455.56 |
| Do you sell pear rakija and how many liters per year? | 26 | 20 | 2000 | 8,450.00 | |
| Do you sell pear rakija and at what price per liter in dinars? | 28 | 800 | 3900 | | 1,375.00 |
| Do you sell apple rakija and how many liters per year? | 18 | 10 | 2500 | 7,980.00 | |
| Do you sell apple rakija and at what price per liter in dinars? | 17 | 400 | 1700 | | 682.35 |
| Do you sell special rakija (with therapeutic herbs) and how many liters per year? | 5 | 20 | 100 | 265.00 | |
| Do you sell special rakija (with therapeutic herbs) and at what price per liter in dinars? | 5 | 600 | 1800 | | 1,000.00 |
| Do you sell rakija of some other fruit and how many liters per year? | 4 | 10 | 150 | 310.00 | |
| Do you sell rakija of some other fruit and at what price per liter in dinars? | 4 | 700 | 1350 | | 962.50 |
| How would you rate the quality of your brandies? Give a rating from 1 (worst) to 10 (best). | 104 | 5 | 10 | | 7.88 |
| How would you rate your current market position? Give a rating from 1 (weakest) to 7 (strongest). | 85 | 1 | 7 | | 2.67 |
| How would you rate your future market opportunities? Give a rating from 1 (weakest) to 7 (strongest). | 85 | 1 | 7 | | 4.19 |

Eleven producers do not perform double distillation, which is a traditional guarantee of quality, and only one admitted to using artificial flavors. The aging of rakija in barrels is practiced by 30% of producers, the same percentage of producers use barrels, although not for all quantities, while the remaining 40% do not use barrels for aging purposes. Of those who use barrels, 95.3% use oak barrels. Although 98 producers have never teamed up with other producers, 60 would like to do so. Furthermore, 83.7% of producers distill plums, 50% grapes, 46.2% quinces, 45.2% pears, 44.2% apples, and 35.6% apricots. Other fruits, such as peaches, raspberries, cherries, sour cherries, figs, pineapples, bananas, oranges, and mangoes are used in much smaller quantities though only sporadically. Rakija is also produced from prunes and raisins, as well as from honey, wine, and wine lees, but only in small quantities.

The 104 distillers produce 1,069.40 hectoliters of rakija annually with an average strength of 44.25%, a slightly higher percentage of alcohol (Table 1). Of this amount, two-fifths or 434.50 hl are sold at an average price of 950.78 dinars. The average price of the products from the eight professional distilleries is 1,220 dinars, but as this price includes excises and taxes, the net selling price is actually less than a thousand dinars. Only 40 of the 45 rakija producers actually sold their products. Twenty-seven rakija producers sold their product legally, i.e., with an excise stamp. Plum rakija is the most frequently produced, with almost 380 hl per year. Rakija made from other fruits is produced in quantities of less than 100 hl/year, namely, in descending order, quince rakija (88 hl/year), pear rakija (84 hl/year), apple rakija (80 hl/year), apricot rakija (64 hl/year), and grape rakija (55 hl/year). The amount of rakija available for sale from the given fruits was determined to be 753.90 hl. This figure is 73.5% higher than the result of the direct survey on sales quantities. The oldest plum rakija offered on the market is 47 years old and has a price point of 100 euros.

All respondents rated the quality of their rakija, with an average score of a strong 7.88. Despite the fact that the scores ranged from 1 to 10, no producer considered their rakija to be bad, as none gave a score of less than 5 (Figure 1). On a scale of 1 to 7, 85 respondents assessed their current market prospects to be relatively poor, giving them a low score of 2.67 (Figure 2). However, they were considerably more positive in their assessment of future market prospects, awarding a high score of 4.19 (Figure 3).

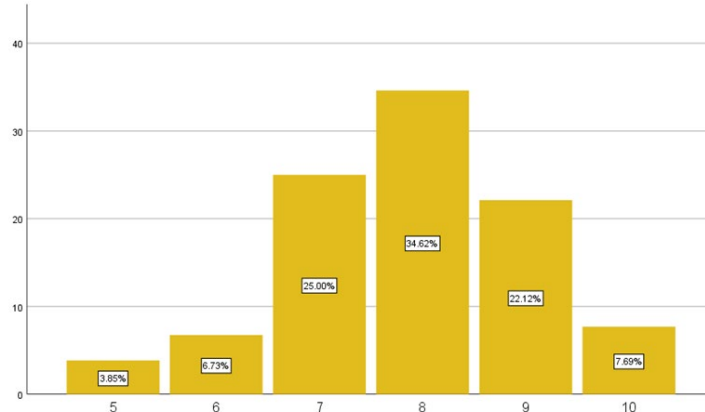


Figure 1. How would you rate the quality of your rakija, on a scale of 1 to 10? (N=104).

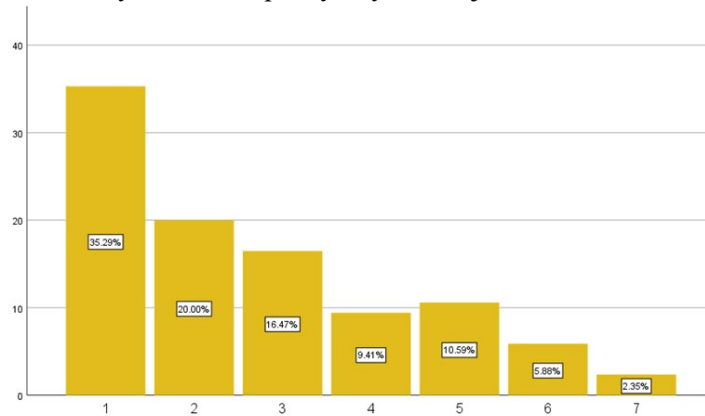


Figure 2. How would you rate your current market position, on a scale of 1 to 7? (N=85).

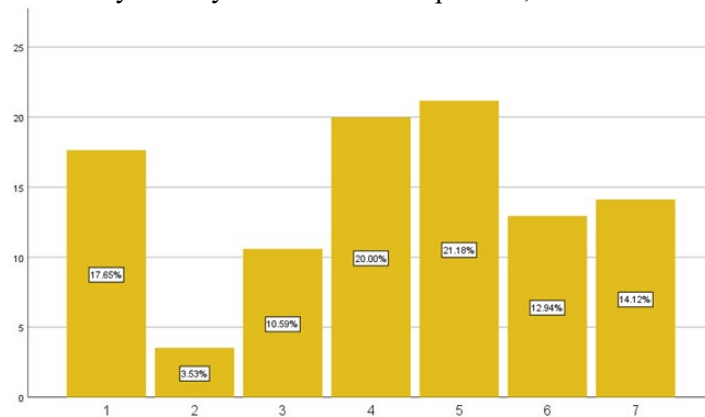


Figure 3. How would you rate your future market opportunities, on a scale of 1 to 7? (N=85).

The following table of price statistics (Table 2), which presents an analysis of the prices of rakija produced from various fruits, shows the median as well as the mean. When the number of responses is disproportionately higher on one side of the curve, the median deviates significantly from the mean. In this case, it is thus more appropriate to use the median. The median, in this case, can be called the medium price, because it is the price that separates the first half of the set from the second. The median, or medium price of all rakija in our sample, is 750 dinars. This means that half of the respondents in the sample sell rakija for less than 750 dinars, while the other half sells for more. The medium price of the national spirit šljivovica is lower than the medium price for all brandies, both for the young (less than 2 years old) šljivovica (600 dinars per liter) and the old (2+ years old) šljivovica (675–700 dinars per liter). The median prices of apple brandies (500 dinars), grape brandies (600 dinars), and special brandies with therapeutic herbs (700 dinars) are all below average. Pear rakija (1,200 dinars) and apricot rakija (1,200 dinars) are well above the average price level (1,400 dinars). Quince rakija has the best price, with a median of 1,500 dinars per liter, which is double the average price of all brandies (approximately 12 euros). Table 2 also shows the price range of the various brandies, from the lowest to the highest price.

Table 2. Price statistics for various kinds of brandies.

| | | Mean | Median | Std. dev. | Minimum | Maximum | |
|---|------|------|--------|-----------|---------|---------|---------|
| | | | | | | Valid | Missing |
| If you sell rakija, what is its average price (din/l)? | 951 | 750 | 674 | 380 | 3900 | 45 | 59 |
| What is the average price of plum rakija (din/l)? | 826 | 600 | 525 | 400 | 3000 | 38 | 66 |
| What is the average price of old plum rakija (din/l)? | 1297 | 700 | 1169 | 500 | 5000 | 18 | 86 |
| What is the average price of very old plum rakija (din/l)? | 2650 | 675 | 3754 | 500 | 12000 | 14 | 90 |
| What is the average price of quince rakija (din/l)? | 1508 | 1500 | 556 | 800 | 3600 | 26 | 78 |
| What is the average price of grape rakija (din/l)? | 671 | 600 | 249 | 380 | 1300 | 20 | 84 |
| What is the average price of apricot rakija (din/l)? | 1456 | 1400 | 509 | 800 | 2500 | 18 | 86 |
| What is the average price of pear rakija (din/l)? | 1375 | 1200 | 671 | 800 | 3900 | 28 | 76 |
| What is the average price of apple rakija (din/l)? | 682 | 500 | 368 | 400 | 1700 | 17 | 87 |
| What is the average price of special rakija with herbs (din/l)? | 1000 | 700 | 505 | 600 | 1800 | 5 | 99 |
| What is the average price of rakija from other fruits (din/l)? | 963 | 900 | 287 | 700 | 1350 | 4 | 100 |

Finally, the influence of rakija prices on market segmentation was investigated using a one-way between-groups analysis of variance. According to their price range, the segments were classified into three groups (1 – Low segment: 500 dinars or less; 2 – Middle segment: 501 to 1000 dinars; 3 – High segment: 1001 dinars and above). The results of these analyses are shown in Table 3, including the

descriptive statistics and the one-way ANOVA F test. For the three segments, there was a statistically significant difference at the $p < .1$ level: $F(2, 42) = 37.160$, $p < .001$. The actual difference between the groups' mean score was quite large. The effect size, calculated using eta squared, was .64. Because the p value is less than .001, we reject the null hypothesis that there are no differences in means among the segments.

Table 3. Results of ANOVA tests.

| Descriptives If you sell rakija, what is its average price per liter in dinars? | | | | | |
|---|----------------|---------|----------------|---------|---------|
| | N | Mean | Std. deviation | Minimum | Maximum |
| 1 Low | 9 | 484.44 | 39.721 | 380 | 500 |
| 2 Middle | 27 | 758.33 | 143.614 | 600 | 1000 |
| 3 High | 9 | 1994.44 | 912.567 | 1200 | 3900 |
| Total | 45 | 950.78 | 673.718 | 380 | 3900 |
| ANOVA If you sell rakija, what is its average price per liter in dinars? | | | | | |
| | Sum of squares | df | Mean square | F | Sig. |
| Between groups | 12760303.333 | 2 | 6380151.667 | 37.160 | .000 |
| Within groups | 7211094.444 | 42 | 171692.725 | | |
| Total | 19971397.778 | 44 | | | |

We have two distinct statistics in the research results when it comes to the amount of rakija sold. When asked directly how much rakija the members of the sample sold, the answer was 43,450 liters, and when asked how much rakija from a particular fruit they sold, the answer was 75,390 liters, which is 31,940 liters more. We presume that the lower figure accurately reflects the reality, and that the higher figure represents all the rakija that was offered on the market but never sold. Serbia produces 50–60 million liters of rakija every year, according to the Ministry of Agriculture (Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia, 2020). To test this assumption and the results obtained, we compared the production and sales data from this study with the data given by official statistics on the consumption of strong alcoholic beverages. For the purposes of this analysis, we will use the data obtained from the direct question about sales, i.e., the lower amount. According to the findings, rakija production in the sample was 106,694 liters, while sales were 43,450 liters, implying that 2.46 times more rakija is produced than sold. According to official statistics (Statistical Office of the Republic of Serbia, 2019), Serbs consume 2.9 liters of strong alcoholic drinks per capita, or a total of 20 million liters (there are around 6.9 million Serbs), with beer consumption accounting for 40.3 liters and wine consumption accounting for 6.8 liters. When we look at the sold-to-produced ratio in the sample and multiply it by the previous total consumption (20 multiplied by

2.46), we get about 50 million liters of rakija produced annually in Serbia (more exactly, 49.2 million), i.e., 7.13 liters per capita. The difference between the smaller and larger quantities reported in the results is interpreted as follows: the actual sale is 43,450 liters, and the 70% higher volume indicates market surpluses, i.e., rakija that is not sold or cannot be sold. The reasons may be different – bad quality, high price, etc. – but the facts clearly demonstrate a market imbalance and an issue with the sale of rakija.

A typical small Serbian distillery intended for the production of rakija is that of a man in his forties without a university degree. They have a small distillery with a capacity of 100 liters which, when used, is placed in the meadow or under the eaves because there is no special facility. They use their own fruit and most often distill plums. They work alone and distilling rakija is their hobby. Their main objective is to produce enough rakija for themselves and all visitors, but they also want to sell it. They make strong rakija with an alcohol content of almost 45%. Such rakija burns the throat and is not pleasant to drink, but with this strength, the distiller can mask the shortcomings of the rakija, which can occur for several reasons, mainly because of the poor quality of the fruit. Even if they sell rakija, they do not settle their obligations to the state and compete unfairly with registered distilleries. Although the primary goal of the state should be the collection of taxes, it seems that the control of tens of thousands of small distilleries in Serbian villages is a difficult and expensive task; hence, the rakija market in Serbia is essentially unregulated. The disorder of the market is a serious shortcoming and a limiting factor for growth and development. In our sample of 45 respondents selling rakija, 27, or about half, do not fulfill their obligations to the state.

Rakija distillers give their rakija a good rating of roughly 8 out of 10, while they give their market condition a low rating of 2.7 out of 7. This feature alone causes them concern, as a good product should have a strong market position. Without getting into the debate over their possibly unreasonably high quality rating, it is self-evident that doing business in the highly competitive alcoholic beverage industry is impossible without marketing. There is little reason for distilleries to be enthusiastic about future market success because rakija producers have not accepted the need for marketing (4.2 out of 7 points). In order for a product to gain a good position in the market, it must be of good quality. The common methods used by distillers to distill rakija do not guarantee that the desired quality will be obtained. A quality product requires branding. There is fierce competition in the alcoholic beverage market. There are a large number of brands of spirits and substitutes, and thus without marketing and communication with the market, even the highest quality product can be rendered effectively invisible. The existing production and business methods are in no way responsible for the market's vision of the future and the high expectations that distilleries place

on it. With current business approaches and outdated means of production, their future can only be worse than the present.

Segmentation of the Serbian rakija market in terms of price

Research has shown that the alcoholic beverage market has two to three segments in terms of price (Carew et al., 2017). The hypothesis that the rakija market in Serbia has three segments was investigated and confirmed, since the average price of rakija in the sample was 951 dinars, and the average price of rakija among Serbian retailers is 587 dinars. The first segment is the most price-sensitive, and these buyers generally demand rakija worth up to 500 dinars. In the sample considered here, one-fifth of distillers address this segment, offering cheap and low-quality rakija. They hold 35% of sales in the rakija market, which is the largest share. The next segment expects rakija of higher quality. That middle segment is ready to pay 501 to a maximum of 1,000 dinars for rakija. It is also the most common segment in our sample, addressed by three-fifths of distillers. However, most producers sell slightly less rakija than the no-frills segment, accounting for 34% of the total market volume. Above this is the luxury segment, which is not price sensitive. One-fifth of the distillers in the sample sell their rakija to this market. They have the smallest share of the rakija market (31%), which is expected. Nevertheless, there are no significant differences in the quantities of rakija sold among the segments.

The very fact that the Serbian rakija market is dominated by either no-frills products or luxury products indicates a serious market imbalance. The majority of distillers selling the mid-price rakija face problems selling their goods. Other alcoholic beverage markets are the polar opposite; standard grade goods have by far the highest market share. It is apparent that the small distillers failed to bring to the market the rakija of standard quality, which would become the flagship of the rakija industry. Such a product is clearly missing on the market.

We must make two additional remarks here. First, the group that we examined consists of distillers that combine traditional and modern technical-technological procedures to produce high-quality rakija, and it is expected that four out of five distillers from the sample will produce quality rakija that can achieve higher prices. It is debatable whether identical results would be obtained outside the observed Facebook group, which excludes the majority of distillers in Serbia. Second, while price and quality are undoubtedly linked, customer choice is impacted by a variety of factors that should be taken into account in future segmentation studies in the Serbian rakija industry. The most important factor is marketing. Obviously, a large number of distillers from the middle segment are not successful in the market, which we can attribute to their ignorance of marketing. Large producers, who are better at marketing, achieve higher prices. The obvious advice to distillers is to

either be more successful and adept at marketing and branding to secure a position in the luxury segment, or to move to the low-price segment and sell their rakija at the lowest possible price.

The average price of rakija on the Serbian market is 951 dinars. The median or medium price is 750 dinars, which is about one-fifth lower than the average price. The medium price applies to half of the sample; half of the respondents sell rakija above, and the other half below 750 dinars. The price of rakija on the domestic market varies between 380 and 3,900 dinars. The largest price range is for very old plum rakija, which sells in the range of 500 to 12,000 dinars. The cheapest is apple rakija, and the most expensive is quince rakija. Plum rakija, as the most commonly produced national drink, only achieves a price lower than the medium on the market although plum rakija has the potential to be aged in oak barrels, only one-third of distillers choose this method. Although some compare plum rakija aged in oak, distilled by modern oenological methods, and produced from the highest quality fruits with French cognac and Scottish single malt (Nikićević and Tešević, 2005), old plum rakija in this sample did not reach the average price of rakija on the Serbian market. Therefore, there is no confirmation that old plum rakija has great export potential, which is completely in line with Matković's (2015) claim that plums and plum products are highly underrepresented in exports.

Challenges to the rakija industry

We have created a SWOT matrix to help us visualize the foreseeable future of the rakija industry (Figure 4). The SWOT analysis (Whittington et al., 2020) brings together the key elements of the business environment and strategic capabilities of the organization that are most likely to influence strategic development. The goal is to identify the key strengths and weaknesses relevant to the organization, as well as the organization's ability to exploit and overcome opportunities and threats from the environment.



Figure 4. The SWOT analysis of the Serbian rakija industry.

Rakija is a traditional and culturally endorsed alcoholic beverage that Serbs are proud of. It is the biggest internal strength of this industry. The strengths of the industry are the increasing acceptance of modern oenological distillation methods and the increased number of new distilleries and new products on the market. New technologies could develop new rakijas, with a richer and more pleasant flavor. Newly opened distilleries and new rakija brands may help to enhance the existing undeveloped rakija market by increasing competition.

On the other hand, the biggest internal weakness is the unfavorable situation in the rakija market, expressed through weak sales, small exports, and substantial unsold inventories. In Serbia, there are hundreds of registered distilleries, but there are ten times as many unregistered distilleries on the market. These “wild” distilleries are exempted not only from taxes, but also from the official product quality monitoring system. Even if rakija and small pot distillation are a tradition in our villages, this should not be an excuse for the government authorities and inspections to remain inactive. Finally, the weakness of the industry lies in the critical ignorance of business practices and the marketing myopia of small distillers, which can also be observed in this research through their unrealistic assessment of rakija quality and market opportunities.

The UNESCO World Heritage Status of Serbian plum spirit šljivovica represents a huge external opportunity for the further popularization of the Serbian national beverage, particularly in the Balkan countries through the current initiative “Open Balkan”, and further in the entire European market through Serbia’s EU accession process. Although many small distillers have not yet joined together in associations or other cooperative business models, they have a strong desire to do

so. This cooperation process should result in the companies becoming more professional, financially stronger, and marketing savvy.

Strong competition from substitute products poses a huge external threat to the weak rakija industry. On the local market, beer and on the international markets, vodka, are the two main competitors. Furthermore, if science fails to provide new plum varieties that can be used to distill rakija that is at least as good as previously, there is a risk that the old plum varieties that were responsible for popularizing rakija in the past will die out. Finally, the production and sale of alcohol in Serbia will be subject to stricter regulations as a result of EU accession, which might pose a significant threat to distilleries if they are not prepared.

After identifying strengths, weaknesses, opportunities, and threats, the next step of the SWOT analysis should be to find ways how to capitalize on the positive factors and limit the negative factors to identify alternative strategies for the rakija industry. Crossing the elements of the SWOT analysis results in four types of alternative strategies: SO or max-max, WO or min-max, ST or max-min, and WT or min-min. The association of the increased number of small, but oenologically advanced distilleries, to take advantage of the opportunities of a wider market thanks to the UNESCO status of Serbian šljivovica, is imposed as a max-max strategy. Utilizing the UNESCO status and initiating a nationwide process of registering small distilleries while facilitating the cooperation process of distilleries in order to grow and become more business-oriented enterprises is seen as a min-max strategy. A max-min strategy appears to be intensifying the development of new plum varieties more suitable for distillation with new oenological agents, supplying the market with these new and improved rakija spirits in order to enhance the competitive position of rakija in relation to substitutes. The worst case scenario, or a min-min strategy, would be to face restrictive regulation at the EU level with a weak rakija industry comprised of small, unregistered distillers who are unaware of market developments. Obviously, this strategy should be avoided. By synthesizing alternative strategies, the following feasible strategy was developed. The intensification of the development of new plum varieties and initiation of the national process of registering small, but oenologically advanced distilleries so that larger and business-oriented distilleries can take advantage of the opportunities of a wider market due to the UNESCO World Heritage Status of Serbian plum spirit šljivovica, and be ready to meet the restrictive EU regulations.

The best-selling alcoholic beverage in the world is Chinese Maotai Baiju (Statista, 2022), a strong Chinese spirit with 53% alcohol. It is made from sorghum. Its annual sales are \$45 billion. After Maotai, the next four brands on the list are also Chinese. They earn \$44 billion. Serbian distillers like to point out that rakija is made from fruit. Foreign consumers do not have to be interested in that, only the end product itself. The reason for drinking alcohol is the physical effect it has after drinking, not the origin of the raw material for the production of

beverages or the method of distillation. Almost nowhere else are fruits used for alcohol production, except in the region of Southeastern Europe. It is not used because excise and taxes on alcohol are high everywhere, and in order to make money, one must use the cheapest raw materials for the production of alcohol, which is not the fruit. Even in Serbia, such large quantities of rakija would not be distilled in rural households if farmers had a greater opportunity to sell their fruits. There is a higher profit from alcoholic beverages almost everywhere, except in Serbia because the producers are small, fragmented, and inefficient.

Surveys have significant shortcomings, and this research is a good example. The way the question was asked, the way it was understood, and the way it was answered, do not necessarily have to match. One such example is the disparity in quantities sold. Although we had a way to check which answer really indicates the right quantities sold, we do not know which part of the unrealized sales was unsold due to the impossibility of placing the products on the market, and which were not yet ready for sale because the rakija had not matured, had not been bottled, etc. We do not know because we did not ask; furthermore, the reality cannot be guessed from the answer, nor do we want to guess. Directly, more precise data would certainly be obtained through interviews, but it would take a lot of time to conduct 100 interviews with distillers throughout Serbia, and a smaller number of interviews would not yield such representative results.

Conclusion

Summarizing the results, we can answer our research question “What can we conclude from the perception of Serbian rakija producers about the quality of their spirits and the market position and perspective?” The perception of rakija quality and of market power moves in two directions. Distillers think they have quality products, but they are unable to sell them. The high expectations of their future market opportunities are quite unrealistic. It is certain that their future may be even more unclear with existing business practices and outdated production methods. According to our findings, there are three price segments in the rakija market: low-priced (up to 500 dinars), mid-priced (between 501 and 1000 dinars), and high-priced (1001 dinars and above). The analysis of these segments reveals that most distillers, marketing standard quality rakija in the middle price range sell, on average, the fewest items on the market. It is evident that there is a scarcity of average quality rakija on the market. After synthesizing the SWOT analysis findings, intensifying the development of new plum varieties and initiating the national process of registering small but oenologically advanced distilleries are seen as a way forward for the Serbian rakija industry, so that larger and more commercially savvy distilleries can take advantage of the opportunities of a wider

market due to the Serbian šljivovica UNESCO status, and be prepared to meet the restrictive EU regulations.

Finally, we are convinced that the results obtained explain the problems with rakija sales in Serbia and that they form a good basis for future, more detailed research on certain topics. An extensive questionnaire, which could certainly take up to an hour to complete, and which was completed by literally everyone who participated in the survey, indicates that producers are interested in information about the production of and market for rakija. We believe that these data will be important for agricultural policymakers, not only because of the possibility of wider taxation but primarily because of the obvious need to impose stricter quality standards that would ultimately increase the quality of rakija in general, in order to fully exploit the position of šljivovica on the UNESCO Intangible Cultural Heritage Lists.

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NAČIN NA KOJI SRPSKI PROIZVOĐAČI RAKIJA OCENJUJU KVALITET I TRŽIŠNU POZICIJU SVOJIH PIĆA

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R e z i m e

Cilj ovog istraživanja je da pruži odgovore na pitanja kako srpski destilери ocenjuju kvalitet svojih proizvoda i kakve su šanse srpskih destilera na tržištu. Autor takođe namerava da odredi broj tržišnih segmenata za rakiju, srpsko nacionalno alkoholno piće. Kao prvo poznato istraživanje o destilerima i ekonomiji proizvodnje rakije u Srbiji, istraživanje je eksploratornog tipa. Kvantitativno istraživanje profesionalnih i hobi destilera rakije (N = 104) sprovedeno je onlajn u oktobru 2021. godine, što znači da je na nivou verovatnoće od 95% greška uzorkovanja niža od 10%. Destilери rakije ocenjuju kvalitet svoje rakije kao relativno visok – 7,88 od 10, dok, obrnuto, situaciju na tržištu ocenjuju kao relativno nisku – 2,67 od 7. Oni su puni entuzijazma u vezi sa svojim budućim tržišnim izgledima – 4,19 od 7, ali sa trenutnim pristupima poslovanju i zastarelim pristupima proizvodnji, njihova budućnost nije izvesna. Otkriveno je da tržište rakije u Srbiji ima tri segmenta u odnosu na cenu: niska cena (do 500 dinara), srednja cena (između 501 i 1000 dinara) i visoka cena (1001 dinar i više). Medijana, odnosno srednja cena svih rakija u našem uzorku, iznosila je 750 dinara. Konačno, SWOT/TOWS analizom sintetizovana je izvodljiva strategija nastupa na tržištu rakije. Nalazi istraživanja biće od koristi kako destilerima, tako i kreatorima poljoprivredne politike zbog očigledne potrebe uspostavljanja strožih standarda u cilju obezbeđivanja višeg kvaliteta rakija.

Ključne reči: rakija, jaka alkoholna pića, kvalitet proizvoda, tržišna pozicija, segmentacija, destilери.

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