

COMPETITIVE ADVANTAGES OF THE VITICULTURE AND WINE SECTOR WITHIN THE BULGARIAN REGIONS

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Abstract

The current study is focused on evaluation of competitive advantage of the wine sector as main driver of economic development of rural areas in Bulgaria. The rural development and specialization of viticulture in Bulgarian rural areas are evaluated in chronological aspect. The Porter's model of determinants of competitive advantage is used as main methodological tool in the current study. The basic factors, which are situated as determinants of competitiveness of rural regions are those that boost the regional development of viticulture and wine industry in rural regions of the country. The specific between industry links, which are the basis for sustainable development and competitiveness, are derived and the comparative advantages are assessed by deriving a comparative index of export advantages, a comparative index of import advantages and an index of relative trade advantages. A comprehensive analysis of the constraints and opportunities for competitive development of viticulture and wine industry in the rural areas has been made. Using the approach of focus groups of experts the main determinants for rural development of the sectors is outlined. The analysis of the competitiveness of the wine sector is considered by taking into account the impact of the processes of specialization, concentration and integration of industries in the sector. As a result of these processes in the sector, specific inter-industry relations are determined, which are the basis for sustainable development of competitiveness.

Key words: viticulture, management, development, regions, competition, Bulgaria

INTRODUCTION

The current development of the regional economy of Bulgaria in the XXI century passes through the assessment and analysis of sectors and industries that may be important for economic development. In this regard, the fact that Bulgaria is a country dominated by rural areas. According to the National Institute of Statistics, of a total of 266 municipalities in Bulgaria, 232 are designated as rural municipalities. As a member of the European Union, Bulgaria must work for rural development, which is in fact the "second pillar" of the Common Agricultural Policy

(CAP), which strengthens the "first pillar" of income support and market measures by strengthening social, environmental and economic sustainability of rural areas. This makes rural areas in the focus of attention of a wide range of researchers, specialists from different fields, who aim to study the spatial patterns at the regional level in countries such as Bulgaria (Loorbach, D. 2010) [14]. The present study focuses on the wine-growing sub-sector, which may be of significant importance in the development of rural municipalities, which are located in the six planning regions in Bulgaria. The analysis of rural areas is usually based on those local

territorial units when it comes to the delineation of sustainable areas, which can be classified as rural or urban and in which agricultural sectors are developing.

The wine sector has traditions and play traditional role in economic development of rural areas in Bulgaria. The industry generates significant share of GDP, creates employment, provide opportunities for better life for rural population, and play role as a buffer against demographic problems like inner migration and process of depopulating. In addition, the sector promotes sustainable agricultural development, diversification of the local economy. This determines the purpose of this exhibition to illustrate the opportunities for their economic development and regional growth through the analysis of competitive advantages of the wine sector within rural areas in the country. The main task of this analysis is to outline the main barriers and prospects for the development of the wine sector through the prism of strategic planning in the development of wine in Bulgaria. In addition, the main task of policymakers for future development of viticulture is to effectively adapt to European spatial development policies in order to raise public awareness of the competitiveness and sustainable development of the local economy.

The role of the wine sector is extremely important for promoting the interaction between the different agricultural and non-agricultural sectors on the territory and for the development of integrated projects in order to make better use of available resources. The wine sector can support the development of industries such as the food industry, information technology, tourism and transport, in the context of the regional development of planning regions.

In this regard, the wine sector can create favourable conditions for the development of businesses models across different economic sectors at the regional level or initiate such interplay processes with neighbouring municipalities with developed viticulture and related industries (OIV, 2016a and b) [23, 24].

Historical and current perspectives on the development of viticulture in Bulgaria.

The start point of development of viticulture in Bulgaria is considered to be after 1927, when the production of table grapes began. At the end of the 1930s, Bulgaria was one of the main exporters of table grapes in Europe (50,000 tons per year), although viticulture at that time was mostly small, fragmented and technically backward. According to the systematic development of viticulture, it has been occurring since the 1950s, when block vineyards were built. It is important to note that a streamlined organization of grape production has been created through 917 main cooperative and agricultural farms, which are grouped in about 4,000 blocks of vineyards with an average size of 25 to 35 hectares. In practice, the derivation of the ecological factors for the first zoning of the vineyards in 1962 is extremely important for the development of viticulture in the country. Thanks to this zoning, a new high-quality dessert (Cardinal, Queen of the Vineyards, etc.) and wine (Merlot, Cabernet Sauvignon, Rkaticelli, Juni Blanc and others) varieties are needed. The production of rootstock cuttings is also increasing - about 200 million, and of grafted rooted vines - about 100 million.

Shortly before 1970, the vineyards in Bulgaria reached 203,000 ha, of which dessert - 53,500 ha, and wine - 149,500 ha. A total of 1,336,000 tons of grapes were produced (1). In the middle of the 80s of the XX century Bulgarian viticulture became established on the international market. By area of vineyards Bulgaria reaches 14th place in the world, in some years we reach the top places in the production of table grapes and in absolute wine production (Vagionis, N. 2010) [29]. This peak values ended with the beginning of the economic transformation of the Bulgarian agriculture in the early 90s of XX century. The restoration of private land ownership is associated with the fragmentation of the massifs - many large and small plots are created, which leads to the inevitable fragmentation of production and deterioration of the quality of land cultivation. This has a negative effect on the quality and quantity of

the product produced - there is no way to achieve homogeneity of production and, accordingly, the market is also fragmented, whether it is about grape varieties or finished wine (Borisov, P., T. Radev, D. Dimitrova 2014) [4].

The big wine cellars are starting to be privatized or go bankrupt, from which the grape producers are losing, because there is no one to buy their products. Preparations for accession (including pre-accession funds and in particular SAPARD) and Bulgaria's membership in the EU are the next stages related to significant changes in the wine sector. Many Bulgarian winemakers and foreign investors manage to implement their projects for modern wineries and vineyards. This gradually began to change the face of the entire wine industry for the better, with production gradually recovering to over 100 million liters of wine per year. On the one side, subsidies for agriculture, including viticulture, give a powerful boost to its development, but on the other - a range of restrictive regulations for Bulgarian producers and requirements for the production process, the qualities of the final product and the conditions for its realization on foreign markets. The lack of comparative advantages leads to further modification of the regional structure of viticulture. For example, between 1998 and 2014, the area occupied by vineyards in Bulgaria decreased three times - according to National Statistical Institute data from 150,867 hectares to 53,251 hectares. The reasons for the significant reduction of vineyards are numerous - from the ongoing land reform and fragmentation of plots in the country to the unfavourable age and variety structure of plantations, lack of sufficient funding for proper agronomic measures and some EU policy decisions for the sector. Another trend in terms of area reduction and production is strong restructuring in terms of the predominant vine varieties. For example, in the period 2000/2014 the total area of red wine varieties decreased from 64.7 thousand ha to 20.3 thousand ha, ie. by 68.6%. However, the areas with red varieties are decreasing at a slower rate compared to the

overall rate of reduction of the areas under vines and significantly slower than the reduction of white and dessert varieties (Simeonov, I., 2016) [27]. This is due to the favourable soil and climatic conditions for the cultivation of red varieties in most areas, the higher degree of mechanization in their processing, the existing traditions of red wine consumption in the country and good opportunities for sales in foreign markets. In the period 2017-2021 a new impetus of the wine sector in Bulgaria is observed.

Of course, the Covid-19 pandemic has had a very negative impact on the development of viticulture in Bulgaria, but the policies that have been outlined in the last few years have had a significant benefit. It is important to note that according to the Ministry of Agriculture and Food, in 2017 the country ranked 23rd in the world in terms of the number of vineyards and 21st in terms of wine production. The area of planted vineyards in Bulgaria totals 67 thousand hectares, with just over 16 thousand new plantations. There are 3,217 registered vineyards in the country, of which 263 are wineries, which produce 160 thousand tons of wine grapes or 1.3 million hectolitres. 19 new cellars are under construction. Exports are 600 thousand hectolitres, mostly to the EU countries, and imports are only 50 thousand hectolitres. The Bulgarian wine is exported in over 45 countries. Intra-EU exports are mostly to Poland, followed by the Czech Republic, Sweden and the United Kingdom. Outside the EU, wine is exported to Russia, China, Albania, Azerbaijan, Australia, the United States and Japan. Observations in the sector are that Bulgaria is exporting to Poland and Russia in the low-priced segment, with red wines predominating. However the share of sales of more expensive wines to different markets, including EU and such countries as China, USA and Japan, is gradually rising. A quarter of Bulgaria's vineyards are of local varieties and 55 wines have a protected geographical indication. Revenues of the largest 100 wineries are estimated at BGN 250 million, with about a quarter of the quantities exported abroad. This makes

Bulgaria the eighth-largest producer of grapes and the tenth-largest producer of wine in the EU. The restructuring of the wine sector is one of the most important and long-term goals set out in the National Strategy. The first task for the implementation of the vision is "Building a modern structure of the sector" to ensure efficient use of resources. Differences in the natural and climatic conditions of the different districts of the country lead to differentiation of the parameters characterizing the production potential of viticulture, as well as to the presence of territorial features in its specialization and concentration.

Zoning in the wine sector of Bulgaria is an important prerequisite for the development of modern viticulture and increasing the efficiency of production and marketing of products. Zoning is the territorial distribution of vine varieties, with the aim of ensuring good terrain - the most suitable soil, relief, climatic and economic conditions for cultivation. The first modern zoning in Bulgaria was made in 1951, with a decree of the Council of Ministers, according to which the country is divided into North Bulgarian, Rila-Rhodope, Sub-Balkan, Black Sea and Melnik wine regions. In the following years, a comprehensive study of the wine-growing regions, vine collections and soil-climatic conditions was carried out, and the most suitable varieties for them were determined. Based on many years of research on the set of natural and climatic conditions, technological characteristics and agro biological properties of vine varieties and experience gained in the process of grape production and processing into wine, 4 wine regions are distinguished: Eastern, Southern, Northern and Southwestern. and a total of 116 neighborhoods.

In this context, the purpose of the paper is to evaluate the competitive advantage of the Bulgarian viticulture and wine industry according to their role in regional development.

MATERIALS AND METHODS

The methodology is based on logical analysis and synthesis of data on the status of viticulture and wine production at national, regional, and local levels, including the use of situational analysis to determine the place of viticulture and wine production in agriculture and the overall economy at the level of planning regions in Bulgaria. A synthesis of the challenges and opportunities for viticulture and wine at the regional level is also presented. It is important to note that the wine industry at the national level has a great potential for export and expansion of markets around the world, increases competitiveness and revenue in the overall economy, improves its comparative advantage, and boost the rural development of other economic industries.

In order to reveal the relevant competitive advantages of the wine sector, it is also necessary to point out its inherent characteristics at the level of the enterprise and the sector. This implies drawing out the competitive advantages of organizations in the industry and a method that allows us to force them on economically active people. Therefore, the analysis of the competitiveness of the sector must take into account the impact of the processes of specialization, concentration and integration of economically active people in the industry (Dimitrova, D. and I. Simeonov, 2016) [7]. Because of these processes in the wine industry are determined by specific links between industries, which are the basis for sustainable development and competitiveness of the sector as a whole. Comparative advantages are assessed by the following indicators: (1) Export Advantage Comparative Index (RXA); (2) Comparative index of import advantages (RIA) and (3) Index of relative trade advantages (RTA), which derive the relevant features of the wine industry (Borisov, P., T. Radev, D. Dimitrova, 2014) [4]. In geo-economics' terms, this means that we need to assess the index of export advantages that can be developed by economically active people within the Bulgarian operators in the wine sector.

Comparative index of export advantages - RXA is calculated according to the formula:

$$RXA = \frac{(X_{di}|X_d)}{(X_{wi}|X_w)} \dots\dots\dots(1)$$

where:

X_{di} - the value of wine exports from the country;

X_d - the value of total exports of the agricultural sector of the country;

X_{wi} - the value of wine exports of the leading wine-producing countries;

X_w - the value of total exports of the agricultural sector of the leading wine-producing countries.

Comparative index of import advantages - RIA is determined using the following formula:

$$RIA = \frac{(X_{di}|X_d)}{(X_{wi}|X_w)} \dots\dots\dots(2)$$

where:

X_{di} - the value of wine imports from the country;

X_d - the value of total imports of the agricultural sector of the country;

X_{wi} - the value of wine imports of the leading wine-producing countries;

X_w - the value of total imports of the agricultural sector of the leading wine-producing countries.

Index of Relative Trade Advantages - RTA is determined by the difference between RXA and RIA:

$$RTA = RXA - RIA \dots\dots\dots(3)$$

In addition, it is important to assess the index of import advantages and the index of trade advantages in order to bring out the emerging market niche and added value of production by companies operating in the wine sector.

To gather the necessary information for the calculation of the indicators characterizing the degree of specialization, concentration as well as comparative advantages of the industry, the following official documents from annual review documents are used, such as Agrarian Report of the Ministry of Agriculture and Food (MAF) [16], reports of the National Vine and Wine Chamber (NLVK) [20], reports of the Executive Agency for

Vineyards and Wine (EAVW) [9], reports of the International Organization of Vine and Wine (OIV) [23, 24], database of the Food and Agricultural Organization of the United Nations (FAO) [10].

In addition to identifying the competitive advantages of the wine industry, the approach of Michael Porter is applied, which is adapted for Bulgarian economically active persons by applying the concept of "diamond of the determinants of national advantages" (Porter 1990) [25].

In addition, due to the indisputable quality of statistical information at the regional level on trends and developments in viticulture, we refer to expert assessment. In our conditions, it is a reliable tool because we rely on recognized experts in the industry who reach their conclusions based on managerial and technological experience in the wine industry (Velev, 2007) [30].

In addition, the majority of experts use a map to assess the competitive advantages of the sector based on five main determinants. These determinants are considered through the prism of factor conditions, conditions, indicators and based on their formation of an overall assessment of the competitive advantages of the industry (Table 1).

Each determinant is considered as a set of several factors that are determined along the way Each factor is assessed by N number of indicators, which are also determined by experts. Expert assessment is carried out through the following stages:

- 1) Establishment of an expert council. Representatives of all participants/organizations /in the wine sector take part in this council;
- 2) The Expert Council, based on its knowledge and experience, develops a preliminary list of factors and indicators determining the competitive advantages of the sector;
- 3) Drawing up a table (map) of the expert opinion. It reflects the expert assessment of the importance of each indicator within a factor of competitive advantage in the Porter model [25] (Table 1).

4) Determining a scale for evaluation of the indicators in the map of the expert evaluation. A score is assigned to each indicator. A 9-point rating scale is used.

The scale is as follows: 0 - extremely negative value; 1 - very weak negative value; 2 - slightly negative value; 3 - does not matter; 4 - weak positive value; 5 - moderate positive value, 6 - strong positive value; 7 - very strong positive value and 8 - extremely positive value of the indicator for the factor determining the competitive advantages of the studied sector.

5) Conduct your own research. The specially designed map is completed by a focus group composed of organizations involved in the value chain. The aim is to cover more stakeholder representatives involved in the sector.

6) Aggregation of the expert assessments of each expert (respondent) in one general map of the expert opinion. It reflects the general

expert opinion on the sources of competitive advantages of the sector.

7) Analysis of the expert evaluation and formulation of findings. The expert summary scorecard determines the average value of each metric. The higher the value of the indicator, the higher the significance of the determinant within the framework that frames the competitive advantages of the industry. In this way, the weight of each indicator, factor and determinant in the Porter model is determined.

In the reference to the expert assessment, 112 individual participants were interviewed, who are a representative sample of all 336 wine producers according to the data of the Executive Agency for Vine and Wine.

For comparison, in 2020 they were 311, and a year earlier - 282 organizations in the wine sector. The focus group of experts is formed at random.

Table 1. The experts' opinion for evaluation of the determinants and factors of competitiveness of the wine sector

| Determinants | Factors | Indicators | Assessment of the importance for the competitive advantages of the sector |
|-----------------------------|---|--|---|
| I. FACTOR CONDITIONS | 1. Workforce | 1. Availability of skilled labor | |
| | | 2. Workforce mobility | |
| | | 3. Age structure of the workforce | |
| | | 4. Experience and accumulated knowledge | |
| | | 5. Presence of an entrepreneurial factor | |
| | | Arithmetic mean of the assessment | N1 |
| | 2. Natural resources | 1. Existence of appropriate natural and climatic conditions for the development of the sector | |
| | | 2. Access of participants in the sector to natural resources | |
| | | 3. Gifted with natural resources | |
| | | 4. Preservation of natural resources | |
| | | Arithmetic mean of the assessment | N2 |
| | 3. Knowledge base - scientific, technical and market | 1. Existence of organizations performing the research and development activities necessary for the development of the sector | |
| | | 2. Availability of technology transfer | |
| | | 3. Implementation of innovations | |
| | | 4. Existence of cooperation and strategic alliances | |
| | | Arithmetic mean of the assessment | N3 |
| | 4. Capital | 1. Access to capital | |
| | | 2. Desire of the banking sector to lend to the activities of the sector | |
| | | 3. Availability of investments | |

| | | | |
|---|---|--|-----------------|
| | | 4. Growth in investments | |
| | | 5. Return on equity | |
| | | Arithmetic mean of the assessment | N4 |
| | 5. Infrastructure | 1. Availability of appropriate road infrastructure | |
| | | 2. Availability of an appropriate irrigation system | |
| | | 3. Availability of appropriate logistics | |
| | | 4. Availability of e-commerce | |
| 5. Availability of adequate housing and communal infrastructure | | | |
| Arithmetic mean of the assessment | | N5 | |
| Arithmetic mean of the assessment of factor conditions | | | Average (N1:N5) |
| II. CONDITIONS RELATED TO SEARCH | 1. Internal market | 1. Availability of demand | |
| | | 2. Growth in demand | |
| | | 3. Loyalty of demand | |
| | | 4. Existence of a surplus on the market | |
| | | 5. Existence of market deficit | |
| | Arithmetic mean of the assessment | N1 | |
| | 2. Foreign markets | 1. Availability of demand | |
| | | 2. Growth in demand | |
| | | 3. Loyalty of demand | |
| | | 4. Existence of a surplus on the market | |
| 5. Existence of market deficit | | | |
| Arithmetic mean of the assessment | N2 | | |
| Arithmetic mean of the assessment of demand-related conditions | | | Average (N1:N2) |
| III. RELATED AND SUPPORTING INDUSTRIES | 1. Suppliers of raw materials and know-how | 1. Availability of suppliers | |
| | | 2. Competitiveness of suppliers | |
| | | 3. Sustainability of relationships with suppliers | |
| | Arithmetic mean of the assessment | N1 | |
| | 2. Trade intermediaries | 1. Availability of commercial intermediaries | |
| | | 2. Competitiveness of commercial intermediaries | |
| | | 3. Sustainability of relations with trade intermediaries | |
| | Arithmetic mean of the assessment | N2 | |
| | 3. Relationships between industries in the sector | 1. Existence of inter-branch connections | |
| | | 2. Increasing the dependence of the industries between them | |
| 3. Presence of a synergistic effect | | | |
| Arithmetic mean of the assessment | N3 | | |
| Arithmetic mean of the assessment of the factors taking into account the related industries | | | Average (N1:N3) |
| IV. COMPANY STRATEGIES AND COMPETITION | 1. Barriers to entry into the sector | 1. Low initial costs | |
| | | 2. Lack of administrative barriers | |
| | | 3. There are no secret cartels | |
| | Arithmetic mean of the assessment | N1 | |
| | 2. Management and strategies | 1. Existence of a production strategy | |
| | | 2. Existence of a marketing strategy | |
| | | 3. Existence of a financial strategy | |
| | | 4. Existence of a strategy for human resources management | |
| | | 5. Existence of an innovation strategy | |
| | Arithmetic mean of the assessment | N2 | |
| 3. Competition | 1. Existence of competition | | |
| | 2. Intensification of competition | | |
| | 3. Opportunity for the emergence of new competitors / substitute products | | |
| Arithmetic mean of the assessment | N3 | | |
| Arithmetic mean of the assessment of the factors taking into account the company's strategies | | | Average (N1:N3) |
| V. GOVERNMENT INTERVENTION | 1. Political and | 1. Existence of a state strategy for the development of the sector | |

| | | | |
|---|--|--|-----------------|
| | legal conditions | 2. Effectiveness of public policy affecting the sector | |
| | | 3. Lack of corruption | |
| | | 4. Degree of control by the state | |
| | Arithmetic mean of the assessment | | N1 |
| | 2. Macroeconomic situation | 1. Existence of economic growth | |
| 2. Presence of inflation | | | |
| 3. Employment growth | | | |
| 4. Increasing purchasing power | | | |
| Arithmetic mean of the assessment | | N2 | |
| | 3. Government support | 1. Educational support | |
| | | 2. Support in research and development | |
| | | 3. Support in export production and export | |
| | | Arithmetic mean of the assessment | |
| Arithmetic mean of the assessment of factors taking into account government intervention | | | Average (N1:N3) |

Source: Adapted according to the methodologies established by Milusheva, 2012 [15], Atanasov, 2016 [1], and Vachevska, 2013 [28].

RESULTS AND DISCUSSIONS

The evaluation of the results shows that the wine industry is attracting interest, but the accumulated technological experience and organizational skills are still at a satisfactory level. According to expert estimates, wine producers do not have the corresponding advantages in wine exports and imports, but attempts are being made to improve the technological base and plant new grape varieties. Based on expert assessment, it can be concluded that the country has specialized in the production and trade of bulk wines (Razzaq, A. R. A., Mustafa, M. Z. & Suradin, A. 2012) [26]. Bulgarian producers prefer to import mainly bottled wines and to export bulk table wines, which are positioned in the low price segments of the international market. The structural determining country in the import of wines on the Bulgarian market is Northern Macedonia, and in recent years' parts of Romania. The main consumer of Bulgarian wines is Russia. About 64% of the Bulgarian exports go to the Russian market. These are mainly table wines and bottled wines. Another structure-determining country for Bulgarian exports is Poland, which accounts for 22% of total wine exports (Eurostat 2021) [8]. In recent years, the specialization of Bulgarian viticulture has focused on the production of grapes from vine varieties that are popular on the international market, such as Cabernet Sauvignon, Merlot and Rkatsiteli. Cabernet and Merlot wines. Going back to the period before Covid-19, it

is noted that in the period from 2008 to 2018 the comparative advantages of our country in wine exports reduced the values of the index from 2.18 to 1.58 in 2018. This proves that Bulgaria is lagging behind in wine exports to the international market due to strong competition. In the euro area, Bulgaria ranks slightly ahead of Hungary in terms of index value - comparative export advantages in the wine trade. In general, the trend of decreasing the comparative advantage in the export of products of the domestic wine sector is one-way with the tendency of decreasing the comparative advantage in the export of EU wine. In comparison, almost all EU countries, major exporters of wine on the world market, are reducing their comparative advantages. The weakening of market positions of most countries in Europe is caused by the processes of restructuring of their wine sectors in the context of the new EU agricultural policy (Welke, J. E., Manfroi, V., Zanusi, M., Lazzarotto, M., Cláudia and Zini, A. 2013) [31].

For several years, large surpluses of wine have accumulated on the EU market, which has been reflected in lower prices and a significant contraction in wine and grape production. Within the European Union, agrarian policy has had to be reformed so as to minimize these surpluses and stabilize the wine industry. These reforms have affected most countries, but have also given them the opportunity to look for opportunities to expand the range of grape products produced in the countries. This has led to the

implementation of a number of initiatives and projects with research and development activities that will generate new productions of products from the wine industry in the European Union (OECD, 2016) [22]. The new agricultural policy of the Union aims to achieve comparative advantages and

competitiveness in the production of products originating in the wine sector and the selection of different types of wines with high quality products and its diversity [11]. The dynamics of the comparative advantages of the main countries exporting wines at the global level is shown in Table 2.

Table 2. Dynamics of the comparative advantages of the main countries exporting wine in the world for 2008 - 2018

| Country | 2008 | | | 2018 | | | Dynamics (2008 base) | | |
|-----------------|---------------------------------|---------------------------------|--------------------------------------|---------------------------------|---------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|-----------------------|
| | Index of comparative advantages | Index of comparative advantages | Relative index commercial advantages | Index of comparative advantages | Index of comparative advantages | Relative index commercial advantages | Comparative advantages when exporting | Comparative advantages when importing | Commercial advantages |
| European Union | 1.04 | 1.03 | 0.005 | 0.93 | 1.05 | -0.12 | -0.11 | 0.01 | -0.124 |
| France | 4.12 | 0.44 | 3.69 | 0.43 | 0.46 | -0.03 | -3.69 | 0.03 | -3.720 |
| Italy | 2.70 | 0.30 | 2.41 | 2.40 | 0.37 | 2.03 | -0.31 | 0.07 | -0.378 |
| Australia | 0.24 | 0.47 | -0.23 | 4.38 | 0.80 | 3.58 | 4.14 | 0.33 | 3.808 |
| Chile | 6.92 | 0.02 | 6.90 | 8.88 | 0.05 | 8.83 | 1.96 | 0.03 | 1.931 |
| Spain | 2.71 | 0.14 | 2.57 | 2.35 | 0.29 | 2.07 | -0.36 | 0.15 | -0.507 |
| Germany | 0.18 | 1.09 | -0.91 | 0.19 | 1.00 | -0.81 | 0.01 | -0.09 | 0.099 |
| USA | 0.25 | 0.80 | -0.55 | 0.19 | 0.90 | -0.70 | -0.05 | 0.10 | -0.149 |
| Portugal | 4.98 | 0.52 | 4.45 | 3.95 | 0.42 | 3.53 | -1.02 | -0.10 | -0.920 |
| South Africa | 3.11 | 0.06 | 3.06 | 2.38 | 0.08 | 2.30 | -0.73 | 0.02 | -0.752 |
| New Zealand | 0.33 | 1.58 | -1.25 | 5.17 | 1.66 | 3.51 | 4.84 | 0.08 | 4.760 |
| Argentina | 1.73 | 0.02 | 1.70 | 2.22 | 0.03 | 2.19 | 0.49 | 0.00 | 0.488 |
| Great Britain | 0.16 | 3.07 | -2.91 | 0.22 | 3.15 | -2.93 | 0.06 | 0.07 | -0.017 |
| Belgium | 0.08 | 1.18 | -1.10 | 0.17 | 1.35 | -1.17 | 0.09 | 0.17 | -0.080 |
| Singapore | 0.20 | 0.41 | -0.22 | 0.24 | 0.03 | 0.20 | 0.04 | -0.38 | 0.419 |
| The Netherlands | 0.07 | 0.87 | -0.80 | 0.09 | 0.27 | -0.18 | 0.02 | -0.60 | 0.617 |
| Switzerland | 0.12 | 2.32 | -2.21 | 0.22 | 2.42 | -2.20 | 0.10 | 0.10 | 0.005 |
| Austria | 0.24 | 0.53 | -0.29 | 0.22 | 0.56 | -0.34 | -0.02 | 0.04 | -0.056 |
| Denmark | 0.31 | 2.61 | -2.30 | 0.01 | 2.86 | -2.85 | -0.30 | 0.25 | -0.551 |
| Bulgaria | 2.18 | 0.04 | 2.14 | 1.58 | 0.41 | 1.17 | -0.60 | 0.37 | -0.965 |
| Hungary | 0.35 | 0.04 | 0.31 | 0.23 | 0.11 | 0.12 | -0.11 | 0.07 | -0.184 |
| in general | 1.52 | 0.84 | 0.69 | 1.74 | 0.87 | 0.87 | 0.21 | 0.03 | 0.177 |

Source: FAO data and own calculations [10].

The complex assessment of the comparative advantages of the Bulgarian wine sector is obtained using the indicator - relative trade advantages. According to the values of this index during the period under review Bulgaria reduces its comparative advantages in the production and trade of wine and wine-cognac materials. Thus, Table 2 shows that for the period 2008 - 2018 the value of the index decreased by 0.97 points. This also means a significant reduction of the comparative advantages of Bulgaria, although the comparative advantages of wine imports increase by 0.37 points. Thus, we can conclude that the comparative advantages of exports generally decrease by 0.60 points.

This somewhat reverses the trend in the development of viticulture as Bulgaria becomes a net importer of low value-added wines, which is a sign that domestic consumption is shrinking and reorienting to the consumption of cheaper products. At the same time, the informal sector in the industry remains tangible. Only 55% of the grapes harvested in the country are vinified under industrial conditions. Looking at the situation of the other countries in Table 2 for their export advantages, only South Africa and Portugal are worse off. In addition, the table shows that Bulgaria's market share is within 0.25% of world exports and falls into the group of countries such as Denmark, Hungary

and Austria - countries that have less favourable climatic conditions for the development of viticulture. However, we can assume that in the period 2008 - 2018 the market share of the country remains at a decent level. It is important to note that countries such as Australia have lower market shares, and Chile is indeed significantly increasing its competitiveness in wine production and trade. Individually, countries such as Australia have significantly expanded their exports over the last 10 years, ranging from 0.3% to 5.25% of total exports to the world market (Moreno-Arribas, M. V. and Sualdea, B. B. 2016) [18]. In general, the turnover on the world wine market is expanding by almost 26%, as can be seen from Table №1, provided that consumption remains the most sensitive to the "quality-price" relationship. Another important research method is the performed matrix

analysis (market share / growth) of the market structure and it is established that the number of countries that are defined as potential centres of profit in the production and trade of wines prevails (Moreno-Arribas, M. V. and Sualdea, B. B. 2016) [18]. These are countries that control less than 5% of the market and achieve market growth of over 30% compared to the previous reporting period. This group includes Germany, New Zealand, Argentina, Great Britain, Belgium, Singapore, the Netherlands, Switzerland, Austria, Denmark and Bulgaria. The wine-growing sectors of the countries: France, Italy, Australia, Chile and Spain are defined as centres of profit. Each of these countries has a significant (over 5%) market share and achieves high market growth (over 30%). The overall picture can be seen in Table 3, which shows the main market shares of the wine exporting countries.

Table 3. Market shares and growth of exports of the main wine exporting countries in the world for the period 2008 - 2018

| Country | 2008 | | 2018 | | Market growth in % |
|-----------------|-----------------------------------|----------------|-----------------------------------|----------------|--------------------|
| | Export of wine in thousands of \$ | Market share % | Export of wine in thousands of \$ | Market share % | |
| European Union | 14,505,773 | 45.78 | 19,908,032 | 41.97 | 137.24 |
| France | 6,919,726 | 21.84 | 9,254,180 | 19.51 | 133.74 |
| Italy | 3,550,372 | 11.20 | 4,741,609 | 10.00 | 133.55 |
| Australia | 105,120 | 0.33 | 2,488,462 | 5.25 | 2367.26 |
| Chile | 835,486 | 2.64 | 2,414,119 | 5.09 | 288.95 |
| Spain | 1,835,577 | 5.79 | 2,395,881 | 5.05 | 130.52 |
| Germany | 592,425 | 1.87 | 990,021 | 2.09 | 167.11 |
| USA | 745,256 | 2.35 | 902,852 | 1.90 | 121.15 |
| Portugal | 660,693 | 2.08 | 818,494 | 1.73 | 123.88 |
| South Africa | 533,227 | 1.68 | 668,629 | 1.41 | 125.39 |
| New Zealand | 245,451 | 0.77 | 559,343 | 1.18 | 227.88 |
| Argentina | 221,438 | 0.70 | 496,837 | 1.05 | 224.37 |
| Great Britain | 208,449 | 0.66 | 382,942 | 0.81 | 183.71 |
| Belgium | 95,361 | 0.30 | 302,070 | 0.64 | 316.76 |
| Singapore | 144,317 | 0.46 | 285,326 | 0.60 | 197.71 |
| The Netherlands | 91,847 | 0.29 | 200,460 | 0.42 | 218.25 |
| Switzerland | 53,180 | 0.17 | 153,076 | 0.32 | 287.85 |
| Austria | 105,120 | 0.33 | 144,628 | 0.30 | 137.58 |
| Denmark | 88,619 | 0.28 | 120,025 | 0.25 | 135.44 |
| Bulgaria | 80,189 | 0.25 | 118,073 | 0.25 | 147.24 |
| Hungary | 71,584 | 0.23 | 90,180 | 0.19 | 125.98 |
| total | 31,689,210 | 100.00 | 47,435,239 | 100.00 | 125.98 |

Source: FAO data [10].

The wine sectors of countries such as the United States, Portugal, South Africa and Hungary generate products that are exported at a slow pace (below 30% compared to the previous year). The United States owns 1.9% of world wine exports, Portugal 1.73%, South Africa 1.41% and Hungary 0.19% respectively, which is shown in Table 2 and in practice gives us reliable arguments for evaluation. On this basis, we can assume that the specified market share / growth matrix can determine not only which are the centres of profit and potential leaders in the wine market, but also the main competitors of Bulgaria in the production and trade of wines and wines. cognac materials. In the domestic market, the main competitors of Bulgarian wines are Italy and France. Italy, which accounts for 26.8% of imports of bottled wines in Bulgaria, and France respectively 10.7% of imports (NSI, 2020) [19]. On the international market, Bulgarian wines are defined as competitive in Russia, where the import of Bulgarian bottled and bottled wines accounts for 12% of total imports in the country. Despite Bulgaria's membership in the EU, the business manages to sell significant quantities in third countries, but this share in the future is not clear whether it can be maintained. The analysis of the branch specialization of the wine-growing regions in Bulgaria shows that the South-Eastern wine-growing region is closely specialized in the production of red and white table wines. The south-western wine-growing region is closely specialized in the production of red quality wines. At the same time, the North-eastern wine region specializes in the production of quality white wines. Bulgaria clearly stands out on the world market as a country traditionally developing exports of bulk wine, which has low added value (Arche Noah 2017) [21].

Outlining the competitive advantages of viticulture in Bulgaria

In our conditions, the competitiveness of farms in the wine sector is determined by the complex interaction of a number of factors - ranging from the location and size of vineyards and terroir in the area, enterprise

size, tangible assets and equity, innovation and mechanization. comes to participation in national and international markets, marketing behaviour and advertising. In practice from Figure 1, which analyzes the processes in the sector.

We can assume that for countries like Bulgaria with large rural areas, viticulture can be one of the most important economic sectors in agriculture, covering both significant areas of arable land and providing livelihoods and work for thousands of producers. In addition, we can say that it is quite an intensified sector, which in view of its functioning and competitiveness. In practice, it uses a significant number of agro-technical measures that have a significant impact on the environment, soils, plants and the rest of the ecosystem. On the other hand, the foundations of the development of the industry are the available vineyards and vineyards. These are the main participants in the wine sector, and the auxiliary ones are all the others, ensuring the production of the raw material and the final product. There is a wide variety of vineyards with different sizes and management strategies, which proves that there are no significant barriers to entry into the sector through the viticulture industry. Figure 1 shows that viticulture is also defined as a highly competitive industry due to the large number of participants who are strictly individual in developing and following their development strategy. Small farms predominate, which is compensated by their risk-taking and the results of negative agro-climatic processes, which may affect the results of vineyards. This determines their lower innovation and investment activity compared to other participants in the sector. In addition, a significant role is played by trade intermediaries in the sale of raw materials - a product of the vilification industry, determine the relationship of this industry with processing. There is no clear competition in this value chain - there are a small number of participants who have a significant impact on the market price. This is one of the reasons for the low marketability of grape growers. Achieving sustainable

development in viticulture is a complex process. Demand and market distribution are constantly changing, and planning in the industry takes time - the construction of the

vineyard and processing facilities takes several years, after which it may be that the market has changed and there is no interest in the products.

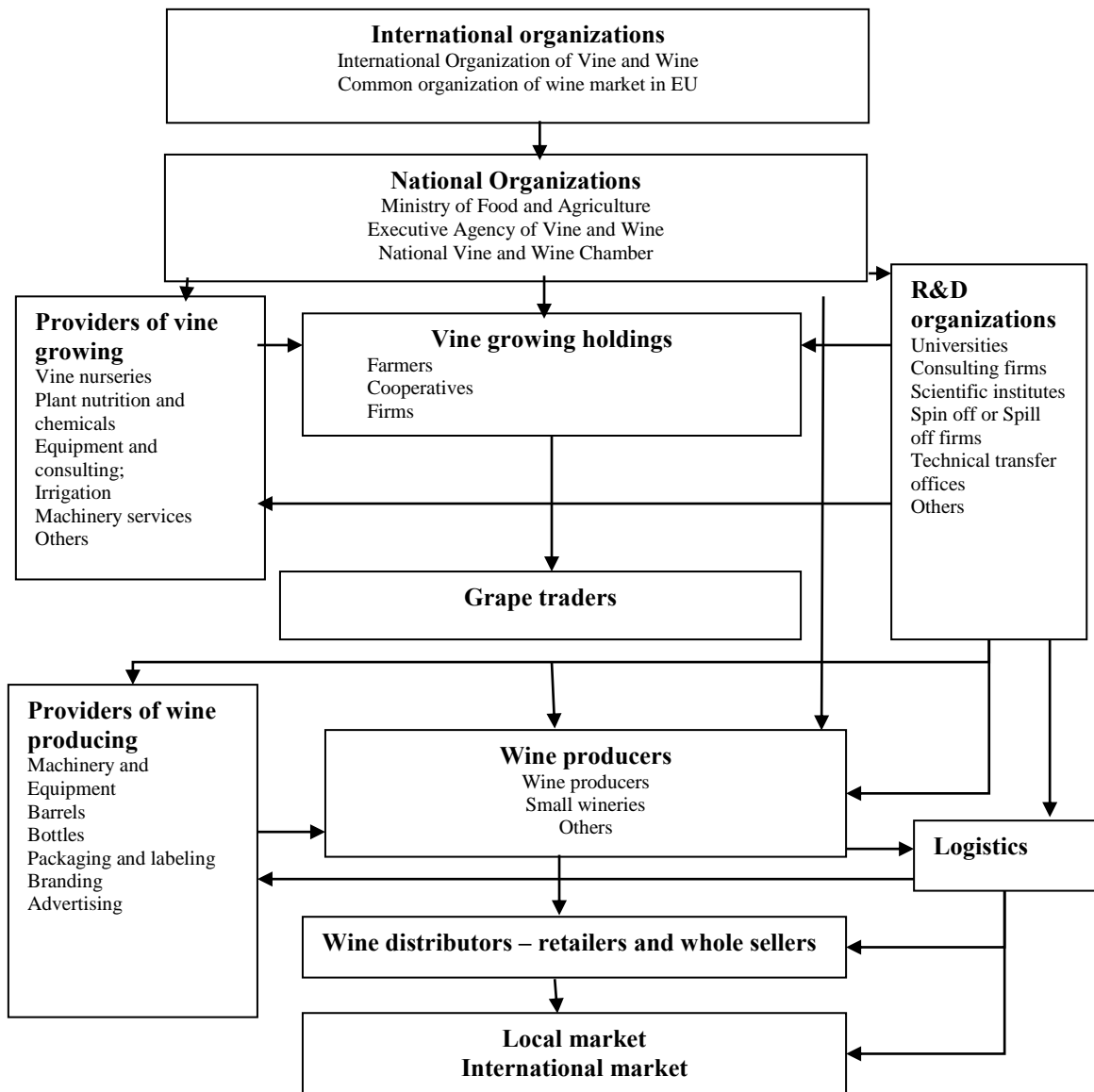


Fig. 1. Participants in the value chain in the sector.
 Source: Adapted model of Kirechev, 2012 [13].

This redefines the need to analyze the determinants of the competitive advantages of the industry. The expert assessment shows (Table 2) that within Porter's model, the determinants that most strongly define the competitive advantages of the wine sector are the demand conditions, the competition and the strategies of the players in the value chain (Table 1).

In addition to the above determinants, it is important to note that the related and

supportive industries are also significant to the development of the sector's competitive advantages. State intervention is the least significant among the determinants examined. This proves that the wine sector is developing thanks to the entrepreneurial factor, which develops its business model through a strategy in line with market requirements (Belletti, G., Marescotti, A. and Touzard, J.-M.2015) [3]. This brings to the fore and analysis of the importance of different factor conditions as a

source of competitive advantage for the sector can be seen in Figure 2. The preserved diversity of natural resources is a major factor determining the competitive advantages of the wine sector (respectively, the average value of the indicator used for this factor is 6.0). The easy access of the participants to natural resources in the cluster determines the leading role of this source of competitive advantage. The availability of skilled labour is the other important source of competitive advantage of the sector (the value of this indicator is 5.4). On the other hand, the respondents determine that the skilled workforce is poorly mobile and this determines the difficult process of selection and retention of staff in vineyards and wine industries. Thanks to the established

traditions in wine production, the participants in the sector have gained experience and knowledge base. This is a prerequisite for the existence of organizations engaged in research and development, which is another major source of competitive advantages of the sector.

The research and development activity is carried out mainly by the organizations that are subsidized by the state - these are universities and research institutes. The private sector has little involvement in this type of activity. The main reasons for this are the slow return on research and development costs and the weak protection of intellectual property in Bulgaria.

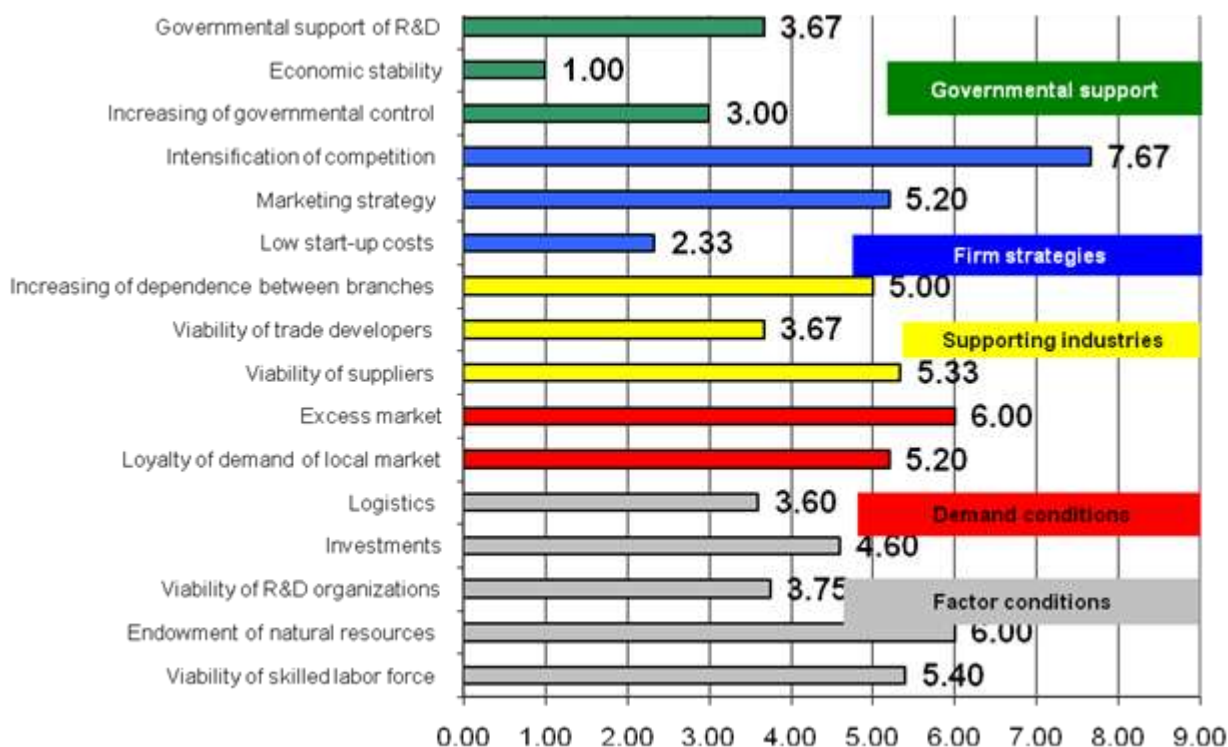


Fig. 2. Significance of the factors determining the competitor's advantages of the wine sector.
 Source: Study by P. Borisov and P. Marinov, 2013 [5].

Another important element of the factor conditions is the investment activity of the participants in the sector. This factor is the third most influential (the average value of the indicator is 4.6). According to the surveyed experts, the main part of the investments in the sector are made by the wine industry enterprises for the creation of vineyards and the purchase of buildings, equipment and

machinery. They absorb most of the funds provided by national and European financial funds. The main factors limiting investment in the sector is the slow return on investment due to the poor financial performance of participants in the value chain and the weak willingness of the banking sector to lend to the wine sector. The expert assessment points to the established logistics base as another

significant source of competitive advantage of the wine sector. It is also defined as a leading factor in facilitating the work of participants in the chain "raw material-end product". The main problems for establishing the competitive advantages of the cluster are the weak technological transfer between the research and development organizations and the producers - vine growers and wine producers. There are also no strategic alliances between science and practice in the process of creating innovations. These are some of the most important sources of sustainable competitive advantage (Jakšič, D., Ivanišević, D., Čokić, V., Tepavac Brbaklić, M. 2015) [12].

The conditions of demand on both domestic and foreign wine markets have been studied. The main factors determining the competitive advantages of the cluster in these markets are fair demand (the indicator is 5.2) and the presence of a surplus. Achieving a loyal demand for the products of the cluster is carried out through the established brand, which is a result of the preserved traditions in production. The presence of a predominance of supply over the demand for wine on the international market determines the intensification of competition Balieva, G. N., M. Huliyan (2015) [2]. The participants in the cluster determine that the presence of such competition has a disciplining effect in following the marketing strategy. According to them, this is a major source of competitive advantage in the wine trade. The main sources of competitive advantages in this group of factors in the studied model are suppliers of raw materials and know-how (average value of the indicator 5.33), strengthening of intersectoral relations (value of indicator 5.00) and trade intermediaries in wine distribution (value of indicator 3.67). It should be noted that the integration of industries is achieved with more investment by wineries. According to the expert assessment, the main problem hindering the strengthening of the influence of this determinant in the model of the competitive advantages of the cluster is the low stability of the relations of grape and wine producers with trade intermediaries.

The presence of intensified competition on the wine market determines the competitive advantages of the cluster (the average value of the indicator is 7.67). Achieving competitive advantages in the market is carried out by developing and following an adequate marketing strategy (the average value of the indicator is 5.2). According to the respondents in the cluster, these are the two most important factors for success in the production and trade of wine. Another important factor is the relatively low initial costs required to start a business. The main problems, according to the owners of the vineyards, are the existence of secret cartels in the purchase of grapes, and according to the wine industry, the significant administrative barriers in the industry. The study shows that wine producers and traders do not impose a strategy for human resource management. They invest more in the purchase of machinery and equipment and cut costs in a crisis in the area of "Staff costs". Thus, the contribution of the cluster to the economic and social development of the region is relatively low (Balieva, G. N., M. Huliyan 2015) [2]. The clustering of the wine sector as an approach to achieving sustainable competitiveness is at an early stage of its development. In this phase there is a combination of production factors in the different industries that form the cluster. This process takes place using different sources to form a competitive advantage. At this stage, the connections between the building blocks of the cluster have already been established, the institutions controlling its development have been formed. The main critical factor for the rapid achievement of a high level of sectoral competitiveness in the cluster is the creation of technology transfer and the attraction of capital that will value this technology transfer in competitive products. An important factor in the management of the wine industry is the evaluation and analysis of government support. The analysis of this determinant of the competitive advantages of the cluster highlights the following more significant factors - state support in research and development (average value of the indicator is 3.67) and strengthening control by

institutions (3.00) regulating the activities of industries. Experts have given a very low assessment of macroeconomic stability, as a factor determining the competitive advantages of the wine sector (Belletti, G., Marescotti, A. and Touzard, J.-M. 2015) [3].

Conserving the local identity and traditions of local communities is one of the main lines of economic development in rural areas, particularly in the area of creating value through the development of the wine industry. Value added is not always associated with new and unaffordable financial investments or cost reductions. Often a change of approach, innovation, product specialization and adaptation to new consumer tastes is enough. Also diversification of activities, whether in the agricultural or other field - for example, linking to tourism or the production of other products, the transition to organic production. Sometimes the improvements consist of small steps related to the organization of production or advertising and distribution, in cooperation with other producers or closing the production/processing cycle, creating clusters and regional brands that support the general advertising of the wine industry.

CONCLUSIONS

The analysis of the competitiveness of the wine sector must take into account the impact of the processes of specialization, concentration and integration of industries in the sector. As a result of these processes in the sector, specific inter-industry relations are determined, which are the basis for sustainable development of competitiveness. Given the global trend to create small boutique wineries with their own look and special attitude towards wine, the production of organic wine can be seen as a successful method of differentiating from the competition and adding value. Moreover, we can accept the fact that the combination of viticulture and wine production is at an advanced stage, but a number of conditions and factors still hinder the full integration of these industries (Delord, B., Montaigne, E. and Coelho, A. 2015) [6]. Vineyards are

characterized by low stocks due to the small size of vineyards that cultivate small vineyards with diverse varietal composition. As a result, the raw material base in the sector is diverse in variety composition and quality. Wine production needs large batches of homogeneous raw material to enable large-scale production to take place and to use the "economies of scale" effect. The main reason limiting access to native raw materials is the still small capacity of the large number of small vineyards, a factor determining the difficult management of the process of raw material supply by wineries. Possession of young or currently in fruiting vineyards by wine-growing enterprises with low productivity. Impossibility for rhythmic supply of working capital for payment during the grape harvest campaign by the wine enterprises. The seasonality of viticulture requires the allocation of significant financial resources during the grape harvest, while the use of imports of wine and cognac materials in production determines easier financial planning. The market orientation of the branches of the wine sector has been declining in recent years. From the production of quality and table wines are realized only 63% of the quantities produced (for 2018) on the international market. Only 50% of the production of special wines. This determines the relatively low commodity value of the industries measured on the basis of exports of products produced by them. The reasons for this are the high size of domestic wine production, which consumes more than half of the raw material - a product of viticulture. The export of bulk wines, in which Bulgaria specializes within the EU, requires quality raw materials, which are grape products (grapes or grape must), the result of viticulture. We can emphasize that Bulgarian wine producers are hesitant in choosing raw materials for production. On the one hand, in order to comply with quality standards, some wine companies produce grape wines, production from specific local vine varieties, which gives them a competitive advantage on the international market (these companies are the smallest part of the participants in the

sector), while others rely on the processing and blending of local varieties with foreign ones, making it difficult to trace the origin of the wines obtained. The added value is in the cooperation between the grape producers, which overcomes the problems with the small private plots, the homogeneity and quality of the production, the purchase price. The production of own brands of wine closes the cycle and increases the profits of all participants. Diversification into wine tourism supports the overall development of the rural region. The links between viticulture and wine production with a view to increasing the competitiveness of the sector have not yet been clarified. The vineyards that provide the raw material base have a low return on investment, which stops their expansion and innovative development. A positive factor is the support of vine growers and winemakers with European funds through the three national viticulture programs and the RDP, as well as the improving in recent years state policy for general advertising of Bulgarian wines and linking them to Bulgaria's tourism product.

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