

WINE CLUSTERS IN PERCEPTIONS OF BULGARIAN RESIDENTS

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Abstract:

Wine is a cultural phenomenon and the central point of a global industry. The wine sector has long history within Europe. During the last few decades international competition in the face of emerging new actors on the wine market is increasing. Clusters are playing an important role in wine sector as being the major possibility for the industry to promote to foreign markets and to develop a strategy for successful internationalization and distribution abroad.

The aim of this paper is to test among Bulgarian residents the feasibility for the sector to develop wine clusters based on different potential criteria. The research is an empirical study based on online survey with 5 groups of questions among residents of different age, education and life status. The main conclusion is that wine clusters in Bulgaria are a viable construct. Creation of wine clusters has the potential to make sense for customers in Bulgaria. Wine clusters to be created should be both regionally based and formed on traditional grape variety processing.

Keywords: wine clusters, Bulgarian wine, grape variety, consumer perceptions in Bulgaria.
JEL: D12, M31, O13, Q17.

1. INTRODUCTION

Wine industry in Bulgaria is experiencing new challenges due to changes in demand - taste of customers and of everyday life habits.

In last three decades, vineyards of traditional grapes in Bulgaria are diminishing in favor to more recognizable grape varieties, the worldwide renowns, mostly French and German (i.e. "Cabernet Sauvignon", "Merlot", "Traminer" etc.).

One possible way to boost the popularity of local wines is to create wine clusters. There is a growing interest in wine clusters in Bulgaria (Markov, 2013; Kirechev, 2012), the notion of a cluster is well-known also in other areas (Dimitrova, Lagioia and Gallucci, 2013). But although there are some attempts to establish wine clusters - several wine clusters do exist since the mid 2010s (i.e. "The antique path of the Thracian wine", "Danube wines", "The path of Dionissos", "The path of Orpheus" etc., some of them are part of a touristic cluster), these clusters didn't gain enough popularity until now.

The aim of our study is to explore the perceptions of potential customers to wine clusters in Bulgaria, we use a own developed survey among Bulgarian residents. The rest of the paper is organized as follows: section two is a literary review, section three presents the instrument, in section four there are the results of the study and the discussion, section five concludes.

2. LITERATURE REVIEW

According to common practices, a cluster is a "geographically proximate group of interconnected companies, suppliers, service providers and associated institutions in a particular field, linked by externalities of various types" (Porter 2003, p. 562). Clusters have been recognized as important triggers of innovation and corporate performance due to simultaneous cooperative and competitive relations between the different companies within. On the one hand, through cooperation geographically concentrated participants in the clusters can benefit from shared access to information, financial and human resources, markets, suppliers and distribution channels. On the other hand, competition makes companies strive for quality improvement, price reduction and search for new market opportunities. Porter (1998) emphasizes the importance of location for building competitive advantage in a global economy. Economists agree on the key role of the clusters in increasing efficiency, productivity and return to investment (Enright and Roberts, 2001; Porter, 2003; Morosini, 2004; Delgado, Porter, Stern, 2014).

Porter (1998) has chosen as a good illustration of his cluster concept California wine cluster as "a geographic concentrations of interconnected companies and institutions". Dana et. al. (2013) point out recent shift of the wine sector from "an emerging oligopoly composed by multinational large size firms" to "strongly fragmented sector with numerous small and medium-sized enterprises (SMEs) in competition within both the domestic market, and increasingly in international markets". Overcoming economic challenges, value creation, reaching economies of scale and economies of scope for SMEs in the wine sector is much more feasible at cluster-level than at a company-level. According to Fensterseifer and Rastoin (2013) wine clusters provide companies with resources, crucial for their existence and development, which can be classified in five types – natural, technical, institutional, social and reputational capital. Cluster approach is applied in wine industry studies in Argentina and Brazil (Alderete, 2014), Brazil and Chile (Mattia et. al., 2015), USA (Hira and Swartz, 2014), New Zealand (Dana et. al., 2013), etc.

Anderson proposes two ways of wine industry SMEs development – through volume of production and product differentiation. The concept of "Terroir" defined by Seguin (1988) as "an interactive ecosystem, in a given place, including climate, soil and the vine" can be used for collective differentiation. Gilby (2018) adds wine-making expertise and the human factor to the characteristics of the place as basic elements of the "terroir". Riviezzo et. al. (2016) accentuate its role as a powerful branding tool which can be applied in managing wine consumers' authenticity and quality perceptions. Authors like Ditter (2005), Bélis-Bergouignan (2011), Riviezzo et. al. (2016) are combining the two concepts considering "terroir" a proper basis for setting boundaries between separate wine clusters.

In Bulgaria the concept of "terroir" is still not very popular, mainly due to the fact that the shift in the wine sector, from few large size firms to numerous SMEs still hasn't occurred.

3. THE SURVEY

In order to assess the perspectives for wine clusters creation in Bulgaria, we explore the perceptions of Bulgarian residents about some main characteristics of wines.

Our instrument is an online survey with 5 groups of questions. First, we try to monitor how our respondents identify the traditional Bulgarian sorts of vines, next we ask about traditional wine producing regions in Bulgaria, another important question is the potential to use local grape varieties. Further we explore whether respondents distinguish between small and big wineries and the wines they produce. The last group of questions is about the impact of wine clusters on demand of wine.

We use a survey consisting of a mix of Likert-type scale items (Likert, 1931), combined with questions of closed type answers. The former we use to study the potential to introduce wine clusters in Bulgaria, and the latter - to assess the prospects for practical implementations of local wine clusters.

For the main scales our respondents were asked fill out questions, 5-point Likert scale survey. In the construction of our survey, we follow the common prescriptions for creating a Likert scale from scratch (see Croasmun and Ostrom, 2011). First, we defined the focus, next we generated the potential scale items and further narrowed down the items keeping items that are good discriminators.

We opted for a Likert scale (1-5) with a neutral type of response - SD (Strongly disagree, 1), D (Disagree, 2), U (Undecided, 3), A (Agree, 4), SA (Strongly agree, 5) with a mid-point (3). We motivate this choice by the aim to not force our responders to be obliged to give definitive answers, i.e. to favor one response over others. In our case, a Likert scale with mid-point may reduce possible response bias, because if a neutral response option exists, responders are not required to decide one way or the other on an issue (for discussion see Fernandez and Randall, 1991). Although this concerns mainly socially sensitive matters, given that in our survey we study also some historically motivated facts, avoiding biased answers seems suitable.

We define three scales, consisting of 10, 12 and 10 items each, organized in multi-item statements.

4. RESULTS AND DISCUSSION

With Likert-type scales, it is essential that the researcher calculates and reports Cronbach's alpha coefficient for internal consistency reliability. Our interpretations of internal consistency follow the traditional views (see Webb et. al., 2006), where coefficients close to or above 0.80 are considered sufficiently reliable to make decisions about the appropriateness of the test uses. Aside from alpha, following Gliem and Gliem (2003) we conduct also a factor analysis to determine the dimensionality of the scales.

First, we ask about grapes - a block of 10 questions, forming our first scale. Do the respondents distinguish between local grape sorts and the ones of foreign origin? Cronbach's alpha for this group of 10 questions (the standardised alpha based upon the correlations) is 0.77, which is a reasonably high value (acceptable - for details see Gliem and Gliem, 2003).

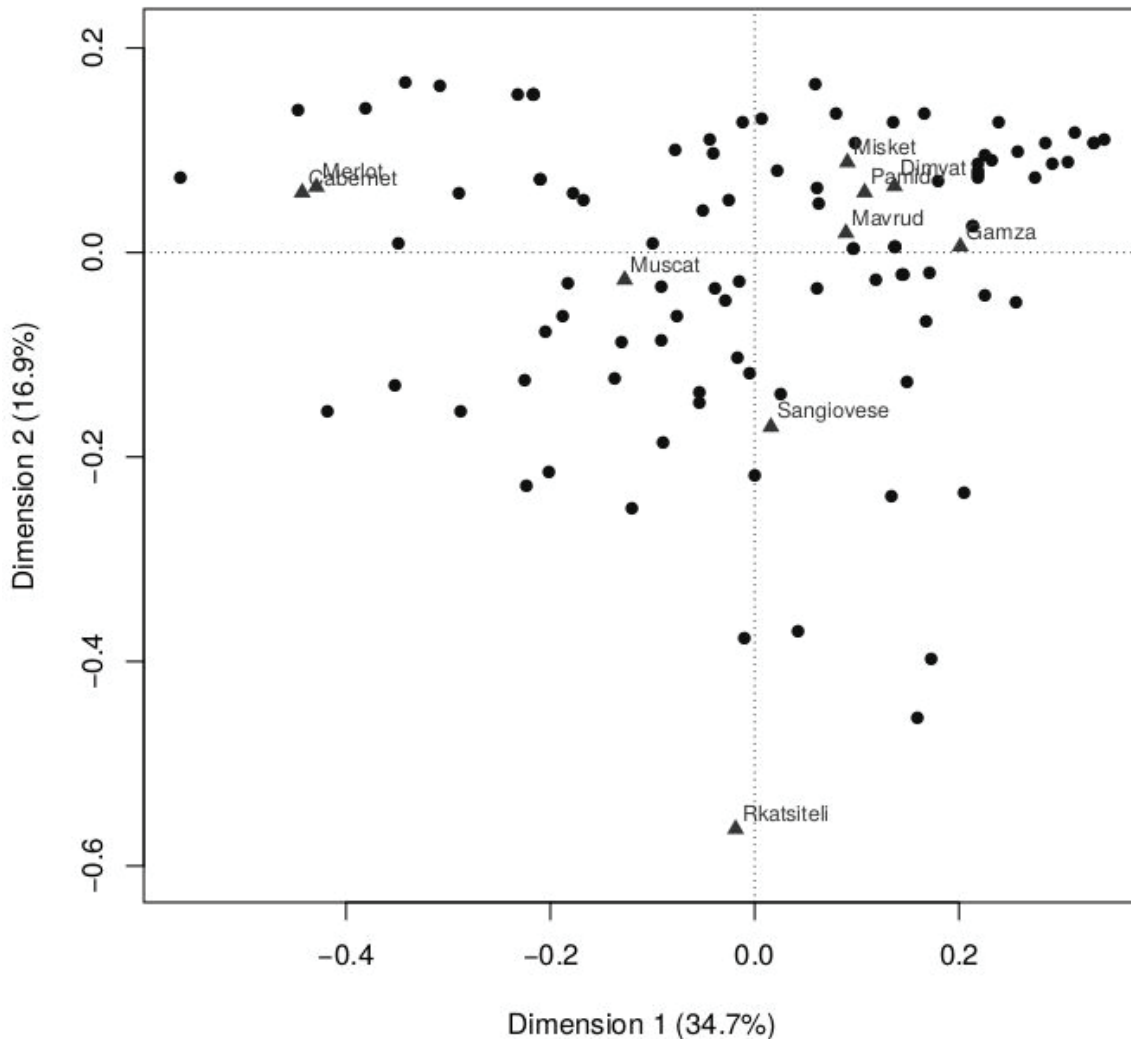
Our first scale "Grapes", is defined by 10 items - names of grape varieties, with "Mavrud", "Gamza", "Dimyat", "Pamid" and "Misket" being local, and "Sangiovese", "Cabernet", "Merlot", "Muscat" and "Rkatsiteli" being global or of foreign origin. The term "Sangiovese" does not appear in the names of wines, marketed in Bulgaria, unlike the rest of the foreign origin grapes. The question we ask is: "Which of the following grape varieties you think are Bulgarian?"

The respondents distinguish well between local and global grapes.

Differences by sex of the respondents exist only for two of the grapes - "Muscat" and "Misket", differences by age exist for the grapes "Mavrud" and "Pamid". Education, work status and taste preferences do not influence the scorings - ANOVA tests (one-way) do not reject the null for all of the grapes.

The internal structure of this block of question proved to be bifactorial, with the first factor closely mapping the "local - foreign" dimension. The second factor seems to reflect the overall knowledge of our respondents to the grape varieties, and can be interpreted as a "known - unknown" dimension - see Picture 1.

Picture 1: Factors (dimensions) in "Grapes-scale"



Source: own calculations.

Scale "Regions" consists of 12 items about locations - "Which of the following regions do you consider as the 'most winery'?", with scores for 12 Bulgarian regions. Cronbach's alpha is also high - 0.86 (total). The factor analysis does not suggest that of more than one factor exists - the scale can be regarded as unidimensional.

Scale "Perspective grape varieties" consists of 10 items, a mix of existing ("Asenovgrad mavrud", "Vraza misket", "Varna misket", "Suhindol gamza", "Vidin gamza", "Varna dimyat") and non-existing ("Silistra dimyat", "Dobrich mavrud", "Nessebar pamid", "Pomorie mavrud") grape names. The question: "Do you link the following wines to a certain producer?" The factor analysis suggests one factor existing, the scale is unidimensional. Respondents do distinguish well between existing and non-existing grape varieties - "Asenovgrad mavrud" (3.05), "Vraza misket" (2.47), "Varna misket" (2.76), "Silistra dimyat" (1.85), "Suhindol gamza" (2.60), "Vidin gamza", (2.04), "Varna dimyat" (2.80), "Dobrich mavrud" (1.79), "Nessebar pamid" (1.67), "Pomorie mavrud" (2.45).

Our next two questions are: "Which of the following wineries do you think are big?" and "Which of the following wineries do you think are small?" with

"Varna", "Leventa" and "Magura" being small, and "Katarzhina", "LVK Suhindol" and "LVK Targovishte" - big ones. Factor analysis suggests that both scales are unidimensional. We "mirrored" the answers of the first question (whether the winery is big), subtracting the answers from 6, i.e. if the answer was 1 (strongly disagree), it became 5 (strongly agree), in order to compare answers to both questions. By juxtaposing answers we are able to discover statistically significant differences (t-tests

for all 6 wineries have p-value below 0.01). The respondents are not confident in their knowledge about existing wineries in Bulgaria. This fact reflects on the one hand the existing multitude of wineries, and on the other hand the small volume of information, Bulgarian customers are searching about wine producers.

To the question: "Which wineries make better wine?" two thirds of the respondents (66.3%) choose "the small wineries", and one third (33.7) - "the big ones". The public in Bulgaria is aware of the advantages of artisanal wine making, there is a sound ground for wine clusters.

Our next question is: "Which is the most quality wine?" (in bottles, in boxes or draft), with "in bottles" overwhelming as answer (98%). The question makes sense, because there is a long tradition in Bulgaria of making homegrown wines, from own, small vineyards. In the last decades the tradition goes gradually down, but it still exists. Despite the poor quality in most cases, "home wines" are regarded as "more natural" than the professional ones, with "box" or "draft" seen a possible replacement (see Boshnakov and Marinov, 2013).

Our next question is whether the region matters in wine production (for the same grape variety), or the modern technologies erase the differences. The respondents (91.6%) consider the region being very important.

To the question "Potential Bulgarian wine clusters will make more sense for the customers mainly..." with possible answers "abroad (in Europe)", "abroad (outside Europe)" and "in Bulgaria", 47.4% of the respondents opt for "abroad (Europe)" and 21.1% for "abroad (outside Europe)" with only 31.5% emphasizing the importance of wine clusters for local customers. We consider that this is due to the lack of experience and the underdevelopment of the local market.

Next, we ask three questions about some global wine clusters: "What is Bojole?" - 75.8% identify it as "a wine", and 10.5% as "a cluster" (for this question, multiple answers were allowed); "A wine from USA you connect to..." with "Napa valley" as the prevailing answer (88.4%) and "A wine from Italy you connect to ..." with "Tuscany" as the prevailing answer (89.5%).

Our respondents do link the wines with the most popular regions from the respective country.

The last question is about an often used idea for wine clusters - "Do you think that 'A wine route' or similar, a route of several dozens of kilometers would make sense for Bulgaria?". Most answers are affirmative, with 56.8% "of course" and another 14.7% "in Bulgaria there are such things already", scepticism is 9.5%, and the rest 18.9% is "I don't know".

5. CONCLUSION

Results of our research show that wine clusters in Bulgaria are a viable construct. Bulgarian residents do distinguish between artisanal and big factory wines and between different grape varieties. Creation of wine clusters has the potential to make sense for customers in Bulgaria.

At the same time the underdevelopment of the local wine market, especially in the premium segments, does not allow to the respondents to distinguish between different types of market players.

Wine clusters which are to be created on both regional basis and traditional grapes seem to have a better potential.

REFERENCE LIST

1. Alderete, M. (2014). The Wine Clusters of Mendoza and Serra Gaúcha: A Local Development Perspective. *Frontera Norte*, 26, 179-204.
2. Anderson, K. (2004). *The World's Wine Markets: Globalization at Work*. Northampton: Edward Elgar.
3. Bélis-Bergouignan, M. (2011). Bordeaux Wines: An Archetypal Terroir Cluster? *The Open Geography Journal*, 4, 73-90.
4. Boshnakov, P. and Marinov, G., (2013). A Comparative Study Of Demand For Local And Foreign Wines In Bulgaria. *CrossCultural Management Journal*, (29), 37-42.
5. Croasmun, J. T. and Ostrom, L. (2011). Using Likert-Type Scales in the Social Sciences. *Journal of Adult Education*, 40 (1), 19-22.
6. Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
7. Dana, L., Granata, J., Lasch, F. Carnaby, A. (2013). The evolution of co-opetition in the Waipara wine cluster of New Zealand. *Wine Economics and Policy*, 2 (1), 42-49.
8. Delgado, M., Porter, M., Stern, S., (2014). Clusters, convergence, and economic performance, *Research Policy*, 43, 1785-1799.
9. Dimitrova, V., Lagioia, G., and Gallucci, T. (2007). "Managerial factors for evaluating eco-clustering approach", *Industrial Management & Data Systems*, 107 (9), 1335-1348.
10. Ditter, J. (2005). Reforming the French wine industry: Could clusters work? *Cahiers du CEREN*, 13, 39-54.
11. Enright, M.J., Roberts, B.H., (2001). Regional clustering in Australia, *Australian Journal of Management*, 26 (1), 65-86.
12. Fensterseifer, J. G., Brouard, J. L., (2013). Cluster Resources And Competitive Advantage: A Typology Of Potential Strategic Wine Cluster Resources. *International Journal Of Wine Business Research*, 25 (4), 267-284.
13. Fernandes, M., and Randall, D. (1991). The social desirability response bias in ethics research. *Journal of Business Ethics*, 10 (11), 805-807.
14. Gilby, C., (2018). *The Wines of Bulgaria, Romania and Moldova, The Classic Wine Library*, Infinite Ideas Limited.
15. Gliem, J. A. and Gliem, R. R. (2003). Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. *2003 Midwest Research to Practice Conference in Adult, Continuing, and Community Education Calculating, Interpreting, and Reporting*.
16. Hira, A., Swartz, T. (2014). What Makes Napa Napa? The Roots of Success in the Wine Industry. *Wine Economics and Policy*, 3 (1), 37-53.
17. Kirechev, D. (2012). Spatial concentration and integration in the wine sector. *Izvestia*, 2012, (1), 132-145. (In Bulgarian).
18. Likert, R. (1931). A technique for the measurement of attitudes. *Archives of Psychology*, 22 (140), 1-55.
19. Markov, I. (2013). The agricultural clusters. *The Balkans - language, history, culture*, 3, (1), pp. 533-542. (In Bulgarian).
20. Mattia, A., Macke, J., Sttofel, J., Miranda Sala, D. (2015). Competitive advantages of firms in agro-industrial clusters: Study of wine in Brazil and Chile. *International Journal of Emerging Markets*, 11(2), 190-213.
21. Morosini, P. (2004). Industrial Clusters, Knowledge Integration and Performance, *World Development*, 32 (2), 305-326.
22. Porter, M. E. (2003). The Economic Performance of Regions, *Regional Studies*, 37 (6-7), 545-546.
23. Porter, M. E. (1998). Clusters and New Economics of Competition, *Harvard business review*, 76, 77-90.
24. Riviezzo, A. Garofano, A., Granata, J., Kakavand, S. (2016). Using terroir to exploit local identity and cultural heritage in marketing strategies: An exploratory study among Italian and French wine producers. *Place Branding and Public Diplomacy*, 13 (2), 136-149.
25. Seguin, G. (1988). Ecosystems of the great red wines produced in the maritime climate of Bordeaux, In: L. FULLER-PERRINE (Ed.), *Proceedings of the Symposium on Maritime Climate Winegrowing*. Geneva, NY: Department of Horticultural Sciences, Cornell University.
26. Webb, N. M., Shavelson, R. J. and Haertel, E. H. (2006) Reliability Coefficients and Generalizability Theory. In: *Handbook of Statistics, Elsevier B.V.*, 26, 4-44.