EUROPEAN WINE POLICY AND PERCEPTIONS OF MORAVIAN WINEMAKERS: A PILOT STUDY IN THE CZECH REPUBLIC

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Abstract

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European wine policy is a significant factor influencing winemakers in the European Union. This paper examines perception of this policy by winemakers and other persons working in Czech wine sector on the sample of respondents. Methodological triangulation consisting of non-structured interview and semantic differential was chosen. Field research was carried out, therefore the study uses primary data. Application of the methodology along with the method of evaluation of data creates an original approach which may be applied on several other research questions. General perception of European Wine Policy is complemented with its impact on competitiveness, practical running of vineyards and winery and on future development of winery. Data is statistically evaluated within categories of respondents. Special emphasis is placed on direct payments as a controversial factor of the policy. The policy is perceived as bureaucratic ("all respondents" $\bar{x} = 4.56$), and among micro winemakers discriminating ($\bar{x} = 4.5$), selfish ($\bar{x} = 4.5$) and malfunctioning ($\bar{x} = 3.5$). "Professional" winemakers perceive the impact on competitiveness in the Czech market as rather positive ($\bar{x} = 2.67$). This study represents pilot research on perception of European Wine Policy by owners of wineries, viticulturists, micro winemakers, a sommelier and a representative of marketing-supporting institution, conducted in the Czech Republic. The author also outlines further direction of research, as the topic is not paid enough scientific attention.

Common Organization of the Market in Wine, Common Agricultural Policy, field research, semantic differential, non-structured interview, semi-qualitative research

Winemaking in the European Union is regulated under European wine policy (EWP), or more exactly by the Common Organization of the Market in Wine. As part of Common Agriculture Policy (CAP), the EWP, it is often blamed for unfair practices, mostly with the regard to different distribution of subsides (direct payments) between member states. However, to the author's knowledge, there has been no research on perceptions of the policy by winemakers in the Czech Republic. EWP is a seldom investigated topic. Unwim (1994) provides an overview of the European wine sector policy and the United Kingdom wine industry, a number of other papers deal with the European wine sector from the perspective of trade (Perju, 2009), consumer behaviour (Allamani, Voller, Kubicka, Bloomfield, 2000) or deal with specific areas of wine economics. As far as Czech and Moravian wine sector is concerned the situation is similar with papers dealing mainly with agricultural and economic issues (Chládková, Tomšík, Gurská, 2009; Tomšík, Žufan, 2004; Tomšík, Žufan, Sedlo, 2006; Chládková, Pošvář, Žufan, 2004; Hejmalová, Šperková, 2011; Šperková, Hejmalová, 2011; Tomšík, Prokeš, 2011).

This paper therefore tries to fill in this gap with a study based on personal interviews with Moravian winemakers and persons engaged in viticulture in the Czech Republic. On the basis of the sample of respondents, the main aim of the paper is to identify the perception of respondents of European wine policy (i.e. attitude to it and reasons for satisfaction or dissatisfaction) in selected areas of their performance. Investigation of possible differences in perception of the European Wine Policy among

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categories of respondents is the partial goal. With evaluated data from two methods of research (semantic differential and non-structured interview) conclusions are made with suggestions of further research.

MATERIALS AND METHODS

As methodological approach, triangulation of methods was used, i.e. combination of qualitative and quantitative methods. Benefits of such combination are (Koráb, 2011) maximisation of methodological power of qualitative and quantitative research while elimination of their disadvantages. Triangulation also allows to reduce the necessary number of respondents in the sample. The selected methods were semantic differential (semi-quantitative/semi -qualitative) and nonstructured interview (qualitative research). Semantic differential is a method for measuring attitudes towards specific problems, people, or issues. It provides, to some extent, standardised data, and at the same time it measures the respondents' attitude towards a particular problem (subjectivity), (Pavlica, 2000). For measuring the attitude and perception of respondents of a particular problem, semantic differential uses scales which generally have a seven-point structure (Al-Hindawe, 1996). Firstly developed by Osgood, Suci and Tannenbaum (1957), semantic differential scales may be used for measuring attitude in marketing (Garland, 1990), finance (MacGregor, Slovic, Dreman, Berry, 2000) or education (Whitney, Soukup, 1988). As Saunders, Lewis and Thornhill (2003) state, "the respondent is asked to rate a single object or idea on a series of bipolar rating scales. Each bipolar scale is described by a pair of opposite adjectives designed to capture respondents' attitudes towards service".

The method of semantic differential is rarely used for measuring perception of respondents in agricultural sector. However, Degner, Stevens and Morgan (2002), Mahon (2005), and Veeman and Unterschultz (2000) conducted their research with methodology including semantic differential scales. The research methodology also includes non-structured interview which does not require exact list of questions or their exact formulation (Disman, 2000). The sample consists of 11 respondents (see Tab. I).

Each respondent was given a semantic differential scale (see Tab. II) and was interviewed. Interview included questions relating to occupation of the respondent, size of the vineyard, satisfaction with current business (legal) environment in the Czech Republic, main reasons for satisfaction/dissatisfaction, entrepreneurial activities in foreign markets, exporting to European and non-European countries, factors influencing exports, impact on winery after 2008 when the overhaul of European wine policy was carried out and ambitions for the

I: Characteristics of the sample of respondents

No.	Categories	Characteristic	Region/Sub-region(Location)
1	Professional winemaker,¹ All winemakers, All respondents	Owner	Morava / Mikulovská podoblast
2	Professional winemaker, All winemakers, All respondents	Director	Morava / Mikulovská podoblast
3	Professional winemaker, All winemakers, All respondents	Owner	Morava / Velkopavlovická podoblast
4	Professional winemaker, All winemakers, All respondents	Owner	Morava / Mikulovská podoblast
5	Professional winemaker, All winemakers, All respondents	Viticulturist	Morava / Mikulovská podoblast
6	Professional winemaker, All winemakers, All respondents	Viticulturist	Morava / Mikulovská podoblast
7	Micro- winemaker², All winemakers, All respondents		Morava / Slovácká podoblast
8	Micro- winemaker, All winemakers, All respondents		Morava / Slovácká podoblast
9	All-respondents	Sommelier	Currently working in Prague
10	All-respondents	Producer of equipment for winemaking	Morava / Slovácká podoblast
11	All-respondents ³	Director of The Wine Fund of the Czech Republic	Brno

¹ For the purpose of this paper, a professional winemaker produces wine in large scale under corporate name, while a micro winemaker regards wine production as hobby, produces wine for own consumption and has a different occupation. The dividing line is 1 ha of area of vineyards.

² Only results of qualitative research were used.

³ Only results of qualitative research were used.

II: Semantic differential scale - European Wine Policy

European wine policy								
	totally	very	Rather	neither	rather	very	totally	
Positive								Negative
Useful								Useless
Satisfying								Irritating
Financially advantageous								Financially disadvantageous
Important								Unimportant
Supporting								Discriminating
Liberal								Directive
Modern								Out of date
Safe								Dangerous
Easy-to-understand								Confusing
Practical								Theoretical
Generous								Selfish
Transparent								Corrupt
Administratively undemanding								Bureaucratic
Well-functioning Malfunction		Malfunctioning						
Developing Stagnating			Stagnating					

III: Method of evaluation of results

Verbal assessment	Totally	Very	Rather	Neither	Rather	Very	Totally
Figure for calculation of \bar{x}	1	2	3	4	5	6	7

future. However, it was difficult to collect data from all respondents through both research methods, as some of them could not provide a relevant answer or, in the case of micro-winemakers, their business activity⁴ could not be measured.

Through semantic differential scales, respondents evaluated terms (European wine policy, Impact of EWP on competitiveness in domestic market, impact of EWP on practical running of vineyards and winemaking and Impact of EWP on future development of winery) on a seven-point scale, deciding between opposite adjectives. The more the adjective reflects the respondents' attitude, the closer the respondent marked towards it. The scales were handed to respondents, who marked their responses on sheets of paper.

For measuring attitude to terms Impact of EWP on competitiveness in domestic market, impact of EWP on practical running of vineyard and winemaking and Impact of EWP on future development of winery, only adjectives positive/negative, useful/useless, satisfying/irritating, financially advantageous/ financially disadvantageous, important/unimportant and supporting/discriminating, were used.

As the method of evaluation of results, an approach proposed by Koráb (2011) was used. It is based on calculation of mean score of figures which relate to the respondents' marking on semantic

differential scales. As opposite adjectives are used and, generally, adjectives with positive meaning were placed on the left side of the scale while adjectives with negative meaning on the right, calculation of mean score suggests how positively or negatively respondents perceive each particular term (see Tab. III).

Non-structured interviews were then used to identify details and connections which could not be identified by semi-quantitative research (as argues Disman, (2000)).

European wine policy as the factor influencing Czech and Moravian winemakers

European Wine Policy is based on three basic pillars (EC, 2006): Regulation of the supply of wine, quality support, mechanisms of regulation of the market. As the EU faces overproduction of wine, new planting is regulated with only limited rights for planting for renewal of vineyards. Quality of wines is a preferred aspect within the EWP. It includes implementation of enological standards, preservation of appellation systems in member states and restrictions with the aim of supporting high quality production. Because of the overproduction, the EU uses measures such as crisis distillation or distillation premium to cope with the situation.

⁴ It is clear from the definition of a micro winemaker who produces wine only for his own consumption and does not sell wine in large scale.

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The CAP, and EWP as its part, are controversial policies of the EU. The main criticism relates to distribution of direct payments, i.e. subsidies, for every farmer or winemaker, between "new" member states and the "old" ones⁵. The volumes of payments have been converging in a predetermined pattern, which means that the differences are shrinking (see Tab IV). The system should reflect different

IV: Convergence in direct payments of "old" and "new" member states

	"New" member states (without Bulgaria and Romania)	Bulgaria, Romania
2009	60% of "old" member states	35%
2010	70%	40%
2011	80%	50%
2012	90%	60%
2013	100%	70%
2014		80%
2015		90%
2016		100%

Source: ((EC) No 73/2009)6

conditions such as price level and geographical specifics, but it is often criticised as unfair and discriminating, especially from farmers in states joining the EU after 2003.

It is not only because of different distribution of direct payments, but also because of minimum size of eligible area per holding for which payments may be requested. "New" states may request subsidies for winemakers with minimum area of vineyard of 1 ha, while the limit for "old" states is 0.3 ha, ((EC) No. 73/2009). This is a crucial point for the presented research.

RESULTS

The results of the empirical analysis revealed that, generally, respondents do not perceive EWP as discriminating. But there are differences between categories of respondents. Micro winemakers do feel discriminated. During interviews they stated that because of the size of their vineyards they do not receive any support from the European Union. Micro winemakers, for the same reason, consider EWP to be selfish and malfunctioning.

V: Results: European wine policy

		European wine	policy			
	categories					
	All resp	All winm	Prof	Micro		
Adjectives	\overline{x}					
positive/negative	3.22	3.00	3.00	3		
useful/useless	3.11	3.14	3.00	3.5		
satisfying/irritating	3.56	3.43	2.67	4.5		
financially advantageous/disadvantageous	3.33	3.29	2.67	4		
important/unimportant	3.00	2.86	2.00	3		
supporting/discriminating	3.67	3.29	2.67	4.5		
liberal/directive	4.44	4.14	3.33	4.5		
modern/ out of date	2.78	2.86	2.33	2.5		
safe/dangerous	3.33	3.29	3.00	3.5		
easy to understand/ confusing	3.78	3.86	4.00	3.5		
practical/theoretical	4.11	4.00	3.67	4.5		
generous/selfish	3.56	3.57	2.00	4.5		
transparent/corrupt	3.33	3.57	3.00	4		
administratively undemanding/bureaucratic	4.56	4.43	5.00	5		
well-functioning/non-functioning	3.22	3.29	2.67	3.5		
developing/stagnating	3.11	3.00	3.67	3		
\overline{x} category	3.51	3.44	3.04	3.81		
number of observations:	9	7	3	2		

Source: author's calculation⁷

^{5 &}quot;Old states" is a term for EU 15, "New states" are countries which entered the European Union after 2003, including Czech Republic as well as Romania and Bulgaria joining in 2007.

^{6 100%} represents the basis for comparison of direct payments for "old" and "new" EU states, where "new" states receive only a fraction of the amount of the subsidies compared to "old" states.

^{7 &}quot;All resp" is the abbreviation for the category all respondents, "all winm" for all winemakers, "prof" for professional winemakers and "micro" is used for micro winemakers.

VI: Results: impact on competitiveness, running of vineyards and winemaking, and future development

	Competitiveness	Vineyards	Future development
Adjectives	\bar{x}	\overline{x}	\bar{x}
positive/negative	2.67	3.6	2.8
useful/useless	2.67	3.8	3
satisfying/irritating	2.67	3.8	3.6
financially advantageous/disadvantageous	3.67	3.6	3.8
important/unimportant	2.67	2.2	2.6
supporting/discriminating	2.67	3.8	3.6
\bar{x} category	2.83	3.47	3.23
Number of observations:	3	5	5

Source: author's calculation

Bureaucracy is a problem for all categories of respondents. They mostly mentioned duties with grubbing-up, rights for planting and procedures of vinification.

Impact on domestic competitiveness, on vineyards and winemaking and on future development was measured only in the group of professional winemakers. Generally positive results are confirmed by qualitative research, when 3 respondents stated that joining the European Union and therefore obligation to European Wine Policy forced them to focus on quality of wine, invest into new technology, allowed them to compare more easily with foreign wines on international competitions, which all resulted in higher competitiveness in the Czech market. Interview with a viticulturist revealed that EWP helped the winery to get access to modern chemical sprays as well as new forms of seedlings (see Tab. VI).

Number of observations equals the number of respondents with completed semantic differential scales.

DISCUSSION

The conducted research has several limiting factors. Firstly, the sample is not large enough to generalize facts about the whole wine sector in the Czech Republic. This fact is partly reduced by the methodology, in which the researcher, using complementary methods of qualitative and semi-qualitative research, was allowed to lower this weakness. The required sample size for the total number of registered winemakers in the Czech Republic which amounts to 19 257 (MZ ČR, 2001), with 95% confidence level and 95% confidence interval, is 377.

Also selection of respondents was a factor supporting validity, when top Moravian winemakers were interviewed, including the winners of national competition Winemaker of the year of the past three years and the director of Vinařský fond (The Wine Fund of the Czech Republic), one the most important wine sector institutions in the Czech Republic. The results may be different when larger sample is created and respondents are selected

proportionally from all Czech and Moravian wine sub-regions. The sample should also include more respondents whose business activity depends on the performance of winemakers (e.g. distributors of wine, sommeliers, producers of technology). The impact of EWP on those categories is indirect, as the demand for winemaking machines depends on the financial strength of winemakers, which is influenced by the amount of direct payments and other supportive measures of the policy. Also wellbeing of sommeliers is partly interconnected with performance of winemakers, when produced wine is bought by sommeliers who then use it, e.g. for private company tastings. Therefore, there could be, according to the research based on interviews, seen a "spill-over" effect of positive or negative performance of winemakers into the whole wine sector, which is determined by the implementation of European Wine Policy.

Generally, European wine policy supports production of quality wine. The research showed that it is empirically noticeable. Consider wines from micro winemakers and wines from professional wine makers substitutes. Direct payments for eligible areas mean competitive advantage for those who benefit from them (i.e. professional wine makers) and, to some extent, discrimination for others (micro wine makers). The question is, whether the consumer benefits from these measures. Winemaking, in the case of the Czech Republic, has a long tradition which is partly preserved by individuals who produce wine with passion. The question is: is this a good strategy? Do all consumers prefer quality wines? Shouldn't the Commission try to invest some effort into the support of people who keep the national heritage?

The reform of CAP after 2013 will highly probably change the system of distribution of direct payments between member states, along with other more or less significant changes, depending on the selected scenario of the overhaul. This will affect winemakers as well and the perceptions may change. The future design will also be important for micro winemakers, as some of them, under current conditions, speak, according to the interviews, about the deterioration of their profession.

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CONCLUSIONS

The presented study, based on the research on the sample of 11 respondents, tried to examine their perceptions of European Wine Policy. Despite the controversial differences in distribution of direct payments between "old" and "new" EU member states, the policy is perceived as discriminating only by micro winemakers. All categories of respondents consider the policy as bureaucratic. Professional winemakers try to focus on quality, therefore they positively perceive the impact of the policy on their competitiveness in the Czech market, with incentives such as access to new technology, new chemical prays, seedlings and to new markets. Interviews among a sommelier, producer of equipment and the director of Vinařský fond (The Wine Fund of the Czech Republic) showed that the policy also influences professions that depend on winemakers' performance. The reform of the Common Agricultural Policy will probably influence Czech and Moravian winemakers. The European Commission should, however, reconsider its supportive measures with the regard to micro winemakers who play the key role in preserving the tradition of winemaking.

Further research should be aimed at other factors which were not included in this study, such as the impact of European Wine Policy on competitiveness in foreign markets, on marketing and PR and on financial performance of winery, and on the changes in perception of the policy after the reform of CAP of 2013. The study is, nevertheless, to the author's knowledge, the first attempt to examine the impact of European Wine Policy on Moravian winemakers, despite its obvious limitations.

SUMMARY

This paper provides an analysis of perception of European Wine Policy (i.e. Common Organization of the Market in Wine) of 11 respondents in the Czech Republic. The sample consists of owners of wineries, viticulturists, micro winemakers, a sommelier, a producer of equipment for winemaking and the director of Vinařský Fond (The Wine Fund), main Czech institution supporting marketing of wine. Primary data was collected through field research using a triangulation of methods, i.e. a combination of semantic differential (semi-quantitative method) and non-structured interview (qualitative). The results showed that a controversial aspect of the policy, direct payments, are not perceived as problematic for professional winemakers. Instead, micro winemakers perceive the policy as discriminating ($\bar{x} = 4.5$), selfish ($\bar{x} = 4.5$) and malfunctioning ($\bar{x} = 3.5$), because of the eligibility criteria. Bureaucracy is a weakness of the policy for all respondents (\bar{x} = 4.56), mostly because of duties with grubbing-up, rights for planting and procedures of vinification. Respondents from the category professional winemakers mostly focus on quality, therefore the impact of European Wine Policy on competitiveness in the Czech market is perceived as rather positive (\bar{x} = 2.67), with better access to new technology, chemicals and new markets. Research with viticulturists proved this fact. Performance of wineries is connected to several other professions in the wine sector, therefore the impact of the policy on winemakers has the form of a spill-over effect, affecting sommeliers, distributors a producers of technology for winemaking. The author poses a question whether the current system of support of quality wine is right, when micro winemakers play an important role in preserving the tradition of national winemaking. Presented methodology with the method of evaluation of data is an original approach, which may be applied in the research on a number of other problems. The reform of Common Agricultural Policy will change the system of allocation of direct payments, therefore, the perception may significantly change after 2013.

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REFERENCES

- Al HINDWE, J., 1996: Considerations when constructing a semantic differential scale. La Trobe working papers in linguistics. Volume 9. ISSN 1036-0808.
- ALLAMANI, A., VOLLER, F., KUBICKA, L., BLOOMFIELD, K., 2000: Drinking Cultures and the Position of Women in Nine European Countries. Substance Abuse, Vol. 21, No. 4.
- CHLÁDKOVÁ, H., POŠVÁŘ, Z., ŽUFAN, P., 2004: Consumer habits in the Czech wine market. *Agricultural Economics-Zemedelska ekonomika*. sv. 50, č. 9, s. 323–330. ISSN 0139-570X.
- CHLÁDKOVÁ, H., TOMŠÍK, P., GURSKÁ, S., 2009: The development of main factors of the wine demand. *Agricultural Economics-Zemedelska ekonomika*. 2009. sv. 55, č. 7, s. 321–326. ISSN 0139-570X.

- DEGNER, R. L., STEVENS, T. J., MORGAN, K. L., 2002: A survey of growers and agribusinesses: Identification of problems and suggestions for improvement. University of Florida.
- DISMAN, M., 2000: *Jak se vyrábí sociologická znalost.* 3. vyd. Praha: Karolinum ISBN 80-246-0139-7.
- EUROPEAN COMISSION, DIRECTORATE GENERAL FOR AGRICULTURE AND RURAL DEVELOPMENT, 2006: Wine: Common Market Organisation. Working paper.
- GARLAND, R., 1992: A Comparison of Three Forms of the Semantic Differential. Marketing Bulletin, 1, pp. 19–24.
- HEJMALOVÁ, H., ŠPERKOVÁ, R., 2011: Assessment of attractiveness of the wine-production industry in the Czech Republic. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis. sv. LXI, č. 2, s. 89–98. ISSN 1211-8516.
- KORÁB, P., 2011: Triangulation of research methods and quantifying semi-qualitative data: practical approach to measuring attitudes. In: PEFnet 2011: European Scientific Conference of Ph.D. Students. 1. vyd., Brno: Mendel University in Brno, ISBN 978-80-7157-743-0.
- MacGREGOR, D. G., SLOVIC, P. DREMAN, D., BERRY, M., 2000: Imagery, Affect, and Financial Judgment. The Journal of Psychology and Financial Markets. Vol. 1, No. 2, pp. 104–110.
- MAHON, M., 2005: Articulating perceptions of rural and urban the use of semantic scales. Irish Geography, Volume 38 (2), pp. 192–208.
- MINISTERSTVO ZEMĚDĚLSTVÍ ČESKÉ REPUB-LIKY, 2011: Réva vinná a víno, situační a výhledová zpráva. Praha: Ministerstvo zemědělství. ISBN 978-80-7084-982-8.
- OSGOOD, C. E., SUCI, G.J., TANNENBAUM, P.H., 1957: The measurement of meaning. Urbana: University of Illinois Press.
- PAVLICA, K. a kol., 2000.: Sociální výzkum podnik a management. Průvodce manažera v oblasti výzkumu hospodářských organizací. 1. vyd., Praha: EKOPRESS, s. r. o. ISBN 80-86119-25-4.
- PERJU, G. E., 2009: Retaliatory disagreement point with asymmetric countries. Evidence from

- European wine sector during enlargement. University of Bonn, Centre for European Integration Studies, working paper.
- SAUNDERS, M., LEWIS, P., THORNHILL, A., 2003: *Research Methods for Business Students*. Third edition. Pearson Education Limited. ISBN 0 273 658042.
- ŠPERKOVÁ, R., HEJMALOVÁ, H., 2011: Suppliers in the wine sector. Acta universitatis agriculturae et silviculturae Mendelianae Brunensis, LIX, No. 7, pp. 439–446. ISSN 1211-8516.
- THE COUNCIL OF THE EUROPEAN UNION, 2009: Council regulation (EC) No. 73/2009. Official Journal of the European Union. L 30/16.
- TOMŠÍK, P., PROKEŠ, M., 2011: New Strategic Alliances of Wine Producers in the Czech Republic. Agricultural Economics. Zemědělská ekonomika. sv. 57, č. 12, s. 573–579. ISSN 0139-570X.
- TOMŠÍK, P., ŽUFAN, P., 2004: Analýza atraktivity odvětví vinařství v České republice. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 2004. sv. LII, č. 3, s. 135–142. ISSN 1211-8516.
- TOMŠÍK, P., ŽUFAN, P., SEDLO, J., 2006: Atraktivita odvětví vinohradnictví a vinařství v České republice ve fázi adaptace na jednotný trh Evropské unie. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis.* sv. LIV, č. 3, s. 101–113. ISSN 1211-8516.
- UNWIM, T., 1994: European wine sector policy and the UK wine industry. Journal of Wine Research; Vol. 5 Issue 2, pp. 135. ISSN 09571264.
- VEEMAN, M., UNTERSCHULTZ, J., 2000: Pork Market Development Research Project: Market Potential for Alberta's Pork in Selected U.S. Markets. Project report. University of Aberta, Faculty of Agriculture & Forestry, and Home Economics.
- WHITNEY, G., SOUKUP, W., 1988: A Semantic differential instrument to evaluate experimental teaching methods. Developments in Business Simulation & Experiential Exercises, Volume 15.