DOI: 10.17707/AgricultForest.65.4.14

Marina NACKA, Ana SIMONOVSKA,
Goran SKATARIC, Branislav DUDIC [1]

OPPORTUNITIES TO PROFIT UNDER COMPETITIVE MARKET CONDITIONS

SUMMARY

Building a recognizable brand for the high-quality bottled wines is opportunity for the wineries to strengthen the international market position. This paper attempts to identify the opportunities to profit under competitive market condition of the Macedonian wineries. For this reason, we first interpret evidence on structural determinants of Macedonian wineries' profitability, then we interpret evidence on the existing marketing strategies of the Macedonian wineries, and finally we present successful case study of a winery that have succeeded to create a recognized brand internationally. The results from this analysis suggest definition of a successful winery that exhibits increasing opportunities to profit under competitive market conditions. The defined winery may be used as a guideline to reinforce possibilities for Macedonian wineries to be able to follow future market signals, considering that they still struggle to adjust to the imposed market-oriented production.

Key words: profitability strategy, marketing strategy, brand creation, competitive position.

INTRODUCTION

With the market globalization process, the agri-food sector in the Western Balkan economies is faced with many challenges. These challenges rise even more with the aspiration of these countries to join the European Union (Palevic et al., 2019). The tough market competition within the EU may negatively affect the small economies from the Western Balkans, if the countries join EU.

The transition process in the Republic of North Macedonia (RNM) has given rise to major structural and economic changes, limiting the competitive market position of the Macedonian agri-food companies. Today, decentralization has led to the agri-food sector being composed of small-scale units that adjust more difficultly to the new market conditions (Lerman et al., 2002).

The wine sub-sector is one of the most perspective agri-food industries for the RNM that could be competitive on the international markets. The favorable

[1]Marina Nacka, (corresponding author: marina.nacka@fznh.ukim.edu.mk), Ana Simonovska, Faculty of Agricultural Sciences and Food – Skopje, Ss. Cyril and Methodius University in Skopje, NORTH MACEDONIA; Goran Skataric, National Parks of Montenegro, MONTENEGRO; Branislav Dudic, Faculty of Management, Comenius University in Bratislava, 82005 Bratislava, SLOVAKIA.
Notes: The authors declare that they have no conflicts of interest. Authorship Form signed online.

microclimatic conditions make a great potential for the country to produce high-quality wine (Vlahovic et al., 2017). So far, Macedonian wines have a good reputation on the domestic and regional markets. However, the domestic agricultural policy aims to increase this reputation and recognition for the Macedonian wine more globally, by allocation of financial support to investments in sophisticated equipment for increased production of quality bottled wine and for marketing technologies. Besides, the investments in marketing to increase the export prices is one of the main objectives of the policies, resulting in additional increase of the export of bottled wine in the total export (Ministry of Agriculture, Forestry and Water Economy 2014-2020). However, the country is still recognized as a producer of a bulk wine.

Building a recognizable brand for the high-quality bottled wines is the core to a strengthened international market position. Moreover, it allows pricing flexibility which is important for overcoming the competitive pressures. Therefore, this paper attempts to identify the competitive (dis)advantages of the Macedonian wine sub-sector.

We first interpret evidence on structural determinants of Macedonian wineries' profitability, grouped into three categories: earnings, capital and financial business structures. Then we interpret evidence on the existing marketing strategies of the Macedonian wineries, and finally we present successful case studies of wineries that have succeeded to create a recognized brand internationally.

The results from this analysis suggest definition of a successful winery that exhibits increasing opportunities to profit under competitive market conditions. The defined winery may be used as a guideline to reinforce possibilities for Macedonian wineries to be able to follow future market signals, considering that they still struggle to adjust to the imposed market-oriented production. In this regard, the results and the analysis may have a wider applicability if the study is applied to other related national or international cases (Vlahovic et al., 2018). The following section briefly describes the determinants of wineries profitability, followed by a description of the existing marketing strategies among the Macedonian wineries and the successful cases for creation of brand equity in the wine sub-sector. At the end conclusions are drawn followed by a short discussion.

MATERIAL AND METHODS

To present opportunities profit under competitive market conditions of the Macedonian wineries, we use three different approaches presented in figure 1. First, we use the financial analysis tool so to provide evidence on the financial condition of the Macedonian wineries, as a starting point in determination of their future possibilities to profit. Second, we use field research methods so to capture the level of Macedonian wineries' commitment towards IPR, as an important marketing strategy in creation of competitive market advantages. And finally, we use the case study approach to present a successful case of a

Macedonian winery in creation of a recognized brand internationally through an effective use of Intellectual Property Rights (IPR).

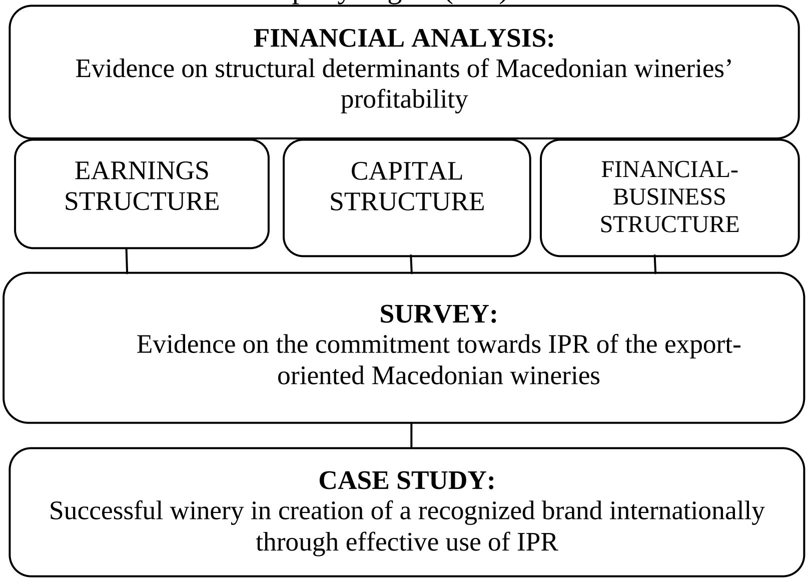

Figure 1. Methodological framework

Financial analysis approach

Financial analysis is a common tool that is used as a standard procedure in the assessment of economic entities' creditworthiness (Altman, 1968) and allows a determination of economic entities' financial position, which is a base for proposal of new investment activities (Smith and Reilly, 1975). The financial ratio analysis provides assessment of the three criteria that determine the economic utility of economic entities, which are, increasing profitability, reducing risk levels and providing liquidity (Barry et al., 2000). By this way, it allows recognition of critical moments that may jeopardize the financial performance, and accordingly indicates if any corrective measures should be undertaken while managing the business so to create basis for better financial performance (profitability).

This tool includes analysis of financial indicators of profitability, liquidity, activity and leverage; however, we give emphasis on the structural determinants of profitability, such as the earnings, capital and financial-business structure, defined in table 1.

The profitability determinants are obtained for 16 Macedonian wineries observed during the period from 2011 to 2016. These wineries cover 98.4% of the installed capacity for wine production in the RM. The official records on wineries, in the form of financial reporting statements (balance sheets and income statements) are provided by the Central Register of the Republic of Macedonia (CRM, 2017).

Table 1. Structural determinants on profitability

Determinants	Code	Definition	Benchmark
		Earnings Structure	
Asset turnover ratio	AT	$AT = \frac{SALES_{T1}}{TOTALASSETS_{\overline{T1+T0}}}$	(C)*
Net profit margin	NPM	$NPM = \frac{NETINCOME_T}{SALES_T}$	(A)*
		Capital structure	
Debt-to-equity ratio	DTER	$DTER = \frac{TOTALDEBT_T}{TOTALEQUITY_T}$	<1*
Debt ratio	DR	$DR = \frac{TOTALDEBT_T}{TOTALASSETS_T}$	<1*
		Financial-business structure	
Return on assets	ROA	$ROA = \frac{NETINCOME_{T1}}{TOTALASSETS_{\overline{T1+T0}}}$	(A)*
Current liquidity ratio	CLR	$CLR = \frac{CURRENTASSETS_T}{CURRENTLIABILITIES_T}$	>2*
Quick-liquidity ratio	QLR	$QLR = \frac{(CURRENTASSETS_T - INVENTORY_T)}{CURRENTLIABILITIES_T}$	>1*

Legend:
* Interpretation depends on the industry.
(A) The higher the ratio indicates higher profitability of the company.
(C) The higher the indicator is, the higher the efficiency is in terms of the use of funds.

The wineries earnings structure is explained by the asset turnover and the net profit margin. It shows the winery's strategy in increasing profit opportunities. The asset turnover is the ratio of net sales over total average assets measured between two time periods. It is a measure of sales income per employed assets. In order to determine the financial strategy of wineries to increase their opportunities for profit, we consider two indicators on capital structure. The debt-to-equity ratio, which is a ratio of total debt over total equity, measures the farms' leverage as proposed in the literature (Abu-Rub, 2012). On the other hand, the debt ratio shows the proportion of total assets financed by external sources of capital. Financing through debt is considered to offer the lowest cost of capital. And finally, we consider three indicators of the financial-business structure of the wineries so to determine their profitability and liquidity position. Return on assets, also recognized as to return on investments, measures the rate of return on assets employed by the company and shows how profitably the winery is using its assets. Liquidity ratios show the ability of the winery to timely payback its liabilities. Liquidity is provided by owning liquid assets or possessing the capacity to borrow additional funds. If the winery is not liquid, it means that its survival is threatened. The difference between the current ratio and the quick liquidity ratio is that the later ratio excludes inventory from current assets, as being low liquid asset.

The procedure for calculation of these financial indicators is simple, but their interpretation is specific and depends on several factors, especially important is the type of the industry (Helfert, 1997), in this case the wine sub-sector. There are three main types of comparison for assessing the financial indicators: trend analysis, benchmark analysis and cross-industry comparison (Horngren et al., 2010); however, considering the data type we only use the first two approaches so to provide evidence on the structural determinants of profitability of the selected Macedonian wineries.

Wineries' commitment towards IPR

In order to observe the IPR commitment of the Macedonian wineries, structured questionnaire that follows five stages of the model of intellectual property portfolio (IP portfolio) was conducted to 30 export-oriented wineries, of which 14 responded to the questionnaire. The table 2 presents the sample distribution by total capacity.

Table 2. Distribution of the wineries according to production capacity

Size	**Number of wineries**	**Total capacities (l)**
Micro	3	<50.000
Small	1	50.000 – 100.000
Medium	2	100.000– 1.000.000
Large	8	>1.000.000

RESULTS AND DISCUSSION

Profitability determinants of the wineries

The profitability determinants are obtained for 16 Macedonian wineries observed during the period from 2011 to 2016. These wineries cover 98.4% of the capacity for wine production in the RNM. The official records on wineries, in the form of financial reporting statements (balance sheets and income statements) are provided by the Central Register of the Republic of Macedonia (CRM, 2017). The results are presented in table 1.

The return on assets reflects (ROA) the profitability of wineries on how well they utilize their fixed assets in making earnings, or simply, the earnings per asset unit. Arsov (2008) considers 5% as the floor limit of the return on assets for selected Macedonian companies, including food processors. However, our findings on return on assets for the Macedonian wineries is 3%, and peaking at 5%, likely due to an improvement in the investment environment supported by lowered credit interest rates.

The wineries earnings structure is explained by the asset turnover and the net profit margin. It shows the winery's strategy in increasing profit opportunities. The asset turnover is the ratio of net sales over total average assets measured between two time periods. It is a measure of sales income per employed assets, varying between 0.34 and 0.5 for wineries. The net profit margin indicates the amount of net income available to equity holders. The higher the net profit margin the more pricing flexibility a company has in its operations. For Macedonian wineries, there is a negative relationship between asset turnover and net profit margin, which is decreasing over time probably due to financial rigidities.

Table 3 Summary statistics for 26 agribusiness companies

Variable names	*Abbreviations*	*Mean*	*Overall Std. Dev*	*Yearly Min.*	*Yearly Max.*
Winery Performance	***WP***				
Return on assets	ROA	0.03	0.07	-0.17	0.39
Earnings Structure	***ES***				
Asset turnover ratio	AT				
Net profit margin	NPM	0.02	0.32	-2.42	1.10
Capital Structure	***CS***				
Debt-to-equity ratio	DTER	1.23	1.19	0.05	6.91
Debt ratio	DR	0.52	0.26	0.05	1.00
Liquidity Structure	***LS***				
Current liquidity ratio	CL	2.05	1.50	0.01	7.29
Quick-liquidity ratio	QL	0.82	0.73	0.01	5.57

In order to determine the financial strategy of wineries to increase or decrease their opportunities for profit, we consider two indicators on capital structure. The debt-to-equity ratio, which is a ratio of total debt over total equity, measures the farms' leverage as proposed in the literature (Abu-Rub, 2012) as an indicator of a farm's capital structure. Financing through debt is considered to offer the lowest cost of capital. The debt-to-equity ratio for Macedonian wineries is 1.23 which is uncommon situation in agriculture, since farms usually have a simple capital structure having a debt-to-equity ratio of between 0.5 and 1 (Barry *et al*., 2000) due to simplicities in the hierarchy of decision processes. However, wineries are more complex production units, and depending on size, they may have more complex hierarchical composition than farms. Considering the debt ratio, which is a ratio of total debt over total assets, it measures the financial risk wineries face. Wineries that hold more assets than debt have a ratio of 0.5. In this regard, their financial behaviour is similar to individual farms. In fact, Barry *et al*. (2000) set a floor limit of this ratio for farms to be lower than 0.5. On average, the debt ratio remains constant over the observed period.

According to Devic and Krstic (2001), size is one of the most important determinants in financial decisions *i.e.* larger wineries have higher leverage than smaller ones. They measure size by taking the logarithms of net sales. However, we calculate size as the share of the farm company's individual net sales in relation to the total net sales for all companies in the sample. Large and well-established wineries operating at a higher size percentage may show a better performance than smaller companies, under the average percentage size. This is probably due to established marketing arrangements.

Inventory assets serve as a buffer to meet market uncertainties which can easily be turned into liquid assets. The days in inventory for wineries are on average 411 days. The longest period for holding inventory assets is observed during 2010 probably due to the limited purchasing power of the wine consumers as a result of the global financial crises started in 2008.

The quick-liquidity ratio shows the wineries' ability to cover current liabilities capturing determinants in the business cycle, as an industrial development indicator. The wide variation of the quick-liquidity ratio among wineries indicates that there are high liquidity constraints among some of the wineries, while others are highly liquid. Actually, holding more debt than equity decreases the liquidity of wineries, and increases their exposure to the financial risk (Barry *et al.*, 2000). The highest quick-liquidity ratio is 1.04, and the lowest 0.67.

There is a weak return on invested capital among the wineries, only 3% in comparison to 5% for other industries. Low profitability of farm companies is induced by low net profit margins, which is not specific for the wine sub-sector since it allows added value production aligned with high net-profit margins. This shows that wineries have not yet adopted a market-oriented strategy, using the pricing flexibility to cope the competition. Instead, volume production is preferred which can be seen from the large asset turnover as opposed to the low net-profit margins. Assets are preferred over debt, indicating fewer investment activities of Macedonian wineries.

Macedonian wineries' commitment towards IPR

The marketing strategies of the wineries in the RNM are observed through a survey among 14 export-oriented wineries by using a structured questionnaire. These wineries hold the greatest proportion of the domestic market share. Despite the domestic market, the selected wineries are well recognized on regional markets.

The questionnaire gives an insight in the winery IP related behavior in order to understand the perception of wineries about the role of the marketing strategies play as part of the wineries' business strategies, where the special attention is paid on the intellectual property rights' (IPR) commitment. This issue is becoming more and more attractive with the aspiration of the RNM to join the EU creating a demand for strong system of IPR enforcement in practice.

There is low awareness of the benefits of IPR among wineries. Implementation remains a challenge, and the system of collective management of these rights is still underdeveloped (European Commission, 2017).

Small firms often lack or cannot afford to build up specific competencies. They also lack the financial capability to defend the infringed IPR. As most important variables when explaining the use of IPR, Keupp M., *et al.*, 2009, point to the firm size. Lopez 2009, argue that very little is known about the appropriability strategies displayed by different groups of firms, or the ways in which different kinds of innovations are protected in developing countries. He points out the reason that micro-level studies are, relatively scarce, making it difficult to learn about the determinants of the use of IPR in different types of firms and sectors in developing countries. Furthermore, there is a lack of evidence regarding the perception of domestic firms in developing countries about the role that IPR play, or might play, in the context of their innovation strategies. The wine sub-sector in the RNM is characterized with low of awareness of the economic benefits of protection and enforcement of IPR (Anastasovska-Dabovic and Zdraveva, 2009).

Implementation of IP and level of protection fairly much differs between sizes of the wineries and product finalization. Innovative strategy is present in 71% of the wineries, which invest particularly in new product, new technology, replacement of old equipment and patents and licensing. From the wineries, 64% have already protected different IPR, mostly trademarks (70%) and industrial design (30%).

As main reasons for not protecting IP rights, wineries state that finances are the largest barrier, then lack of knowledge about legal procedures for protection and lack of information about different types and possibilities for protection. This is mostly evident in the case of small wineries that should consider the possibility of strategic protection (especially in innovating strategy, vision for new markets and constant marketing investments) of those rights that would gain economic benefit to the winery. However, 70% of the wineries believe that protection justified the costs, taking in to account the potential benefits that could arise from it (Figure 2).

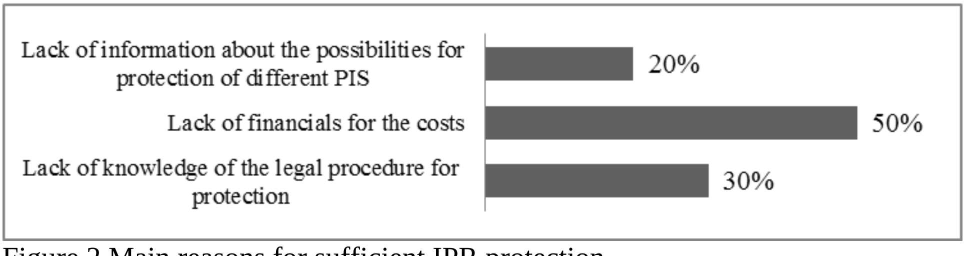

Figure 2 Main reasons for sufficient IPR protection

IPR-committed wineries with protected trademarks and industrial designs that constantly invest in marketing successfully create product differentiation and brands. The non-IPR committed wineries have faced with lack of information about the possibilities for protection and financial barriers for conducting the procedures, so IPR is perceived as investment that require additional costs.

Regarding export orientation, 71% believe that increased export of bottled wines increased the need for IPR protection, which is in line with Keupp M., *et* *al.*, 2009, who stressed that exporting companies are, to some extent, more likely to use IPR protections. It depends mostly of the winery strategy and the exporting market. In case of export orientation, crucial to be considered is the fact that larger, open and competitive markets bring higher risk of counterfeit of the package and label (the case with large Macedonian winery), creative label (micro winery) and creative idea (small winery). In case of counterfeit, IPR user that first protects the right of ownership could withdraw the competitive products.

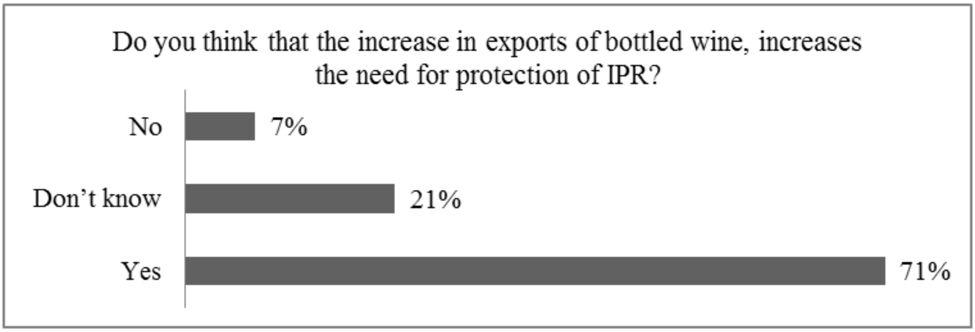

Figure 3 Importance of IPR protection in export orientation

Main motives for protection of IPR are wineries intention to build reputation and to prevent counterfeits and imitation. Additionally, wineries protect IPR in order to build strategy for differentiation and competitiveness of products in the market. These motives are related to the overall strategy of building corporative brands, because consumers' perspectives are ranked with lower priorities. In fact, it presents that wineries are directed mostly to international markets, and perceived the domestic market as monopoly in terms of competition. However, according to the forthcoming period and tendency in the agri-food trade and policy, as well as globalization of the markets, this trend could be considerably changed in the future.

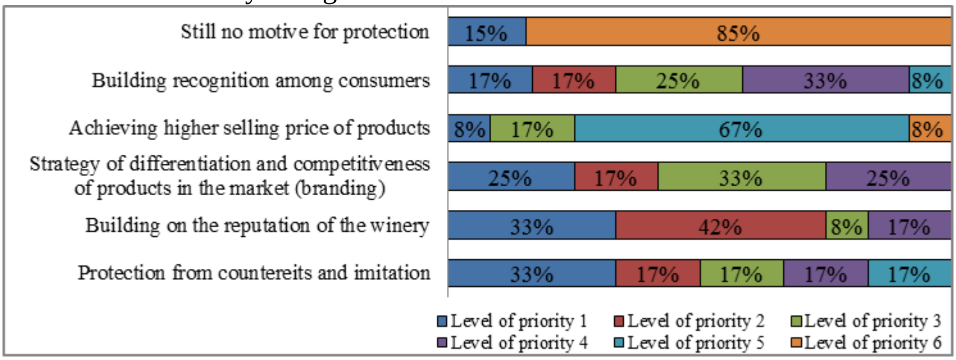

Figure 4 Motives for protection IPR

Exceptional potentials for long term benefits and income from protection of IPR are considered by large and market-oriented wineries especially when they use marketing strategies for branding. Accordingly, micro and small wineries with bulk production has no potentials at all. However, almost all wineries have equally or higher expectations for gaining incomes of strategic use of protection of IP assets.

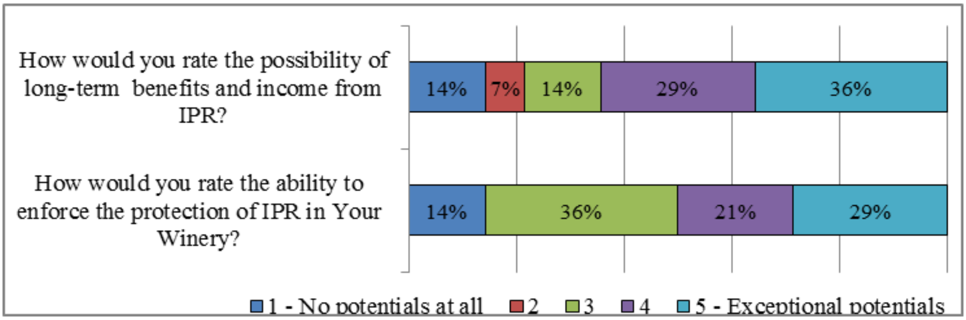

Figure 5 Possibilities for benefits and ability to enforce of IPR protection

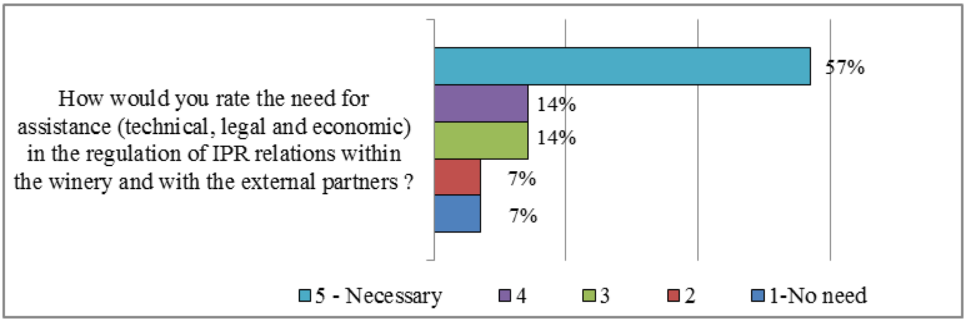

Figure 6 Need for technical, legal and economic assistance in IPR procedures

In 36% of the wineries, education in the field of IPR is provided as an integral part of training courses to employees or managers in the winery. This present represents the large wineries that mostly exist on the domestic and regional markets and use a strategy of product differentiation and building brand identity. Other wineries that do not provide education are small, micro or those that do not use sufficient marketing investment for further development of individual or corporative brand.

A case of a successful winery's brand equity creation

A single case study of a successful winery is presented to guide future competitive strategies in the wine sub-sector in the RNM. The selection of the case was based on the level of importance of the wine sub-sector for the RNM and on a distinctive IP experience that this winery has. The wine production is a crucial strategic sub-sector for the country, confirmed by the following facts: 1) 70% export-oriented, 2) growing trend of development, 3) high degree of specialization, and 4) positive investment trends in sophisticated equipment and marketing skills (CBI, USAID, 2012). In the next period, the development of this sub-sector will be intensified by positioning wines as the most important exported and competitive brands from the agri-food industry in RNM (MAFWE, 2014-2020).

The high-level IPR committed winery successfully transforms IP assets into high brand equity by continuously investing in marketing strategies. As a result, it holds the dominant domestic market position with a 65% market share of the total production of bottled wines (or 75% market share in terms of sales value). It is also successfully established on the regional markets, holding award of the most recognized regional brand. The persistent innovative strategies followed by a strategic use and protection of IP assets, the permanent marketing investments and the investments in education in the field of IPR as an integral part of training courses, distinguishes this winery as a representative case.

The case study is of a high-level IPR committed winery that successfully transforms IP assets into brand equity and simultaneously protects IPR. By this, it was ranked on the list of 100 most perspective global brands (M&M Global, 2012). In this regard, the following marketing strategies and activities were undertaken: *1) Constant innovation, 2) National and international trademarks protection, 3) Product differentiation through branding and designs, 4) New international markets' penetration and 5) Constant marketing campaign.*

In the past years, the winery invested more than 20 million Euros in modernization of technology, equipment and processes. Their main objective is to rapidly raise the product quality so to offer competitive brand on international markets. Therefore, they rely on both, product and process innovative strategies. The long-term strategy of the winery is to continuously invest in technology, new product development, human creativity and knowledge. The permanent IPR protection enables the winery to prevent counterfeit, thus strengthening its market position and increasing its commercial value.

The winery protects mostly trademarks; around 80 domestically and 50 in each regional country. This contributed to increased brand visibility, exclusivity and prevention from counterfeit. For instance, the winery was faced with many counterfeits of the packages and the labels; however, due to its commitment towards IPR, it effectively coped against the infringement of the protected rights.

The main motives for protection of IPR are winery intention to build reputation and to prevent counterfeits and imitation. Additionally, it protects IPR in order to build strategy for differentiation and competitiveness of products in the market. These motives are related to the overall strategy of building corporative brand, because consumer perspectives are ranked with lower priorities. The corporative brand is perceived as fastest growing brands in the RNM. In the process of brand creation, the winery constantly introduces new and improved products, adopts new production techniques and marketing of product and services and protects them with IPR. Its long-term marketing strategy resulted in quality products that created an emotional relation between its brands and consumers.

With regards to the new international markets' penetration, the winery considers that export orientation and penetration of new markets, such as countries from the European Union, USA, Canada, China and Australia, increase the need for IPR protection. It is widely known that the level of protection depends of the company strategy and the exporting market. Having in mind that, larger, competitive and globalized markets bring higher possibilities for counterfeit, they usually make the decisions strategically, based on the economic interest. The procedure is costly, so the protection in new international markets is mostly directed towards protection of trademarks and industrial designs that evolved into strong brands.

Even though by the Macedonian Law on Assessment only the trademark's financial value is determined, the winery regularly conducts research for valuation of the emotional brand perspective. These findings are helping the winery to define the current brands' positioning, as well as the key indicators of the brand strength, domestic and regional consumers' perception and the potential for launching new products. Based on these findings, the winery performs in-depth analysis, necessary for marketing strategies development, as well as defines plans for development and improvement of products and for evolution of their brands.

Due to these strategies, including IPR protection supported with marketing investments, the winery has increased its market share and has gained higher business opportunities. Thus, within a period of ten years, its products' average sales price increased by 75%, mainly due to the brand image.

CONCLUSIONS

This research covers three aspects in order to depict the opportunities to profit under competitive market conditions of the Macedonian wineries. These aspects are: a) the existing profitability strategies; b) the general marketing strategies, and c) the distinguished marketing strategies for a brand creation.

The earnings structure suggests that Macedonian wineries in the short run are limited by pricing flexibility undertaking different strategies in order to increase profitability. More efficient investments are undertaken by growing wineries. By holding small inventories, wineries may easily follow market signals adjusting production capacity.

Wineries in RNM rely more on debt than on equity to operate activities. However, statistical evidence does not support the hypothesis that high-leverage increases opportunities for wineries to profit. Probably due to asymmetries between the national capital and credit markets and farm companies, increasing risk exposure. However, in line with Arsov (2008) results suggest that wineries prefer more assets than debt, considering financial risk in the long run decisions. This strategy seems to be a good financial strategy to increase profitability of wineries with positive net sales growth while the opposite is valid for those companies operating at negative net sales growth. Wineries facing a negative equity signal financial distress, without the ability to generate sufficient liquidity.

Considering the preceding, we may define a typical winery that exhibits increasing opportunities to profit, as follows: a low-levered winery showing a positive net sales growth, relaying on assets rather than debt, larger than the average size in terms of total capacity, able to cover current liabilities taking advantage of the fluctuations of the business cycle.

However, the wine sub-sector needs to establish and maintain competitive international position by imposing intensive marketing strategies in creating strong brand equity.

The wineries' use and protection of IPR depends on the size of the wineries, availability of finance for protection and investments in marketing as well as accessibility to information and knowledge about IPR protection and use. There is a high protection of trademarks and designs, but economic value of IP assets is not sufficiently used. It means that most of the cases do not transform trademarks into strong brands because lack of marketing investments. The field experience implies that only the biggest and successful wineries show high commitment to IPR so far, thus investing in marketing and building a corporative brand of the winery or individual brand of the products. Furthermore, general awareness for IPR exists, but there is low expertise within the wineries and cooperation with IPR experts that result in insufficient IPR enforcement. The effective use of IPR requires that they should be well incorporated into a firm's overall strategy. This is more often the case with large Macedonian wineries than the smaller ones, which do not use IPR in the same way as larger companies. Small wineries predominate with 90% of the total number, usually faced with financial constraints and low marketing budget, so, commitment to IPR is perceived as investment that require additional costs.

REFERENCES

Abu-Rub, N., 2012. Capital Structure and Firm Performance; Evidence from Palestine Stock Exchange. Journal of Money, Investment and Banking 23: 109-117.

Arsov, S., 2008. Financial Management. Skopje, Republic of Macedonia: University "Ss. Cyril and Methodius" – Skopje.

Barry, P. J., Ellinger, P. N., Hopkin, J. A. and Baker, C. B., 2000. Financial Management in Agriculture, 6-th ed. Danville, Illinois, USA: Interstate Publishers, Inc.

Barry, P.J. and Ellinger, P.N., 2012. Financial Management in Agriculture, 7-th ed. New Jersey, USA: Pearson Education, Inc.

CBI, USAID AgBiz, 2012. Macedonia's wine sector export marketing plan for EU markets.

CRM, Central Register of the Republic of Macedonia., 2017. Balance Sheets and Income Statements, for the period 2010-2016.Skopje: Central Register of the Republic of Macedonia.

Dabovic-Anastasovska J., Pepeljugoski V., 2009. Intellectual Property Rights.

Dabovic-Anastasovska, J., Zdraveva N., 2009. Strategy of Intellectual Property Rights of Republic of Macedonia 2009-2012, Ministry of Economy, State Office of industrial property, Skopje.

Deari, F. and Deari, M., 2009. The Determinants of Capital Structure: Evidence from Macedonian Listed and Unlisted Companies. Analele Stiintifice ale Universitalii „AlexandruIoanCuza" 56.

Devic, A. and Krstic, B., 2001. Comparable Analysis of the Capital Structure Determinants in Polish and Hungarian Enterprises: Empirical Study. Facta Universitatis: Economics and Organization 1 (9): 85-100.

European Commision, 2017. Progress report for Republic of Macedonia, Brussels.

Hanel P., 2006. Intellectual property rights business management practices: A survey of the literature, Technovation 26 (8), 895–931 Elsevier, Amsterdam.

Idris K., 2004. Intellectual property, a powerful tool for economic growth, WIPO.

Keupp M., et al., 2009. Economic Focus Study on SMEs and Intellectual Property in Switzerland, SME-IP 2nd Report, Swiss Federal Institute of Intellectual Property, Bern.

Lopez A., (2009). Innovation and appropriability: empirical evidence and research agenda, WIPO, Geneva.

Masset Ph., Weisskopf J. Ph., 2013. Wine as Alternative Asset Class, Wine Economics, Quantitative Studies and Empirical Applications, Palgrave Macmillan, England.

Nacka M., Georgiev N., 2013. Marketing and competitiveness of wine sector in Republic of Macedonia - An aspect of Industrial Property Rights, Lap Lambert Academic Publishing, Saarbrucken.

OHIM, EPO 2013. Impact of intellectual property rights intensive industries: contribution to economic performance and employment in the European Union, Industry-Level Analysis Report.

Palevic, M., Spalevic, V., Skataric, G., Milisavljevic, B., Spalevic, Z., Rapajic, B. (2019): Environmental responsibility of member states of the European Union. Journal of Environmental Protection and Ecology 20 (2): 886-895.

State Statistical Office, 2013. Wine statistics - through numbers, SSO, Skopje.

Vlahovic, B., Užar, D., Skataric, G. (2018): Comparative analysis of the organic food market in the Republic of Serbia and Neighbouring Countries. Green Room Sessions 2018 International GEA (Geo Eco-Eco Agro) Conference, 139. Podgorica, Montenegro.

Vlahović, B., Skataric, G., Veličković, S. (2017): Wine market in CEFTA Countries, Agroekonomika, 46 (74): 1-10, Novi Sad, Serbia.

Volk, T., Rednak, M. and Erjavec, E., 2010.Executive summary. In Volk, T. (ed), Agriculture in the Western Balkan Countries. Halle, Germany: IAMO 57: 1-5.

WIPO, 2013. Making Intellectual Property for business, A Handbook for setting up intellectual property services, WIPO, Geneva.

Zeitun, R. and Tian, G. G., 2007. Capital structure and corporate performance: evidence from Jordan. Australasian Accounting Business and Finance Journal 1: 40-61.

Zinych, N. and Odening, Z., 2009. Capital Market Imperfections in economic transition: Empirical Evidence from Ukrainian agriculture. Agricultural Economics 40 (6): 677-689.