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## **The commitment of the Macedonian agri-food companies towards Intellectual Property Rights**

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## **Abstract**

We aim to give an overview of the different levels of commitment towards Intellectual Property Rights (IPR) among agri-food companies in the Republic of Macedonia so to emphasize its basic role in creating competitive market position. The low-level IPR committed companies were analyzed by specifying a fixed-effects model, and for the high-level IPR committed companies we used a single case study with a distinctive IP experience in permanently implementing innovation and marketing strategies. The results emphasize the importance of the companies' IPR strategies for strengthening their market position. In fact, brand equity is created only through constant marketing investments.

**Keywords:** IPR, competitive market position, IP assets, brand equity, marketing investments.

## Introduction

The consolidation of the Macedonian market into the European Union's (EU) will require a strong legal system for enforcement and commercialization of the Intellectual Property Rights (IPR), as well as a raised awareness of the related economic benefits. During the pre-accession preparations of the Republic of Macedonia (RM) for the EU membership, the country has progressed in creating a legal framework and enforcement of IPR (European Commission, 2011).

IPR protects intellectual property (IP), or intangible assets, that arise from company's innovation and human creativity. Despite the growing importance of the value of IP assets, there are different levels of commitment to IPR among companies. This is a matter of the stage of the business, the awareness of the managers and the company's business strategy (WIPO, 2013).

In RM, the level of the overall awareness for the economic benefits of the IPR remains low, especially among the agri-food companies (Anastasovska –Dabovic and Zdraveva, 2009). Hence, we aim to give an overview of the different levels of IPR commitment among agri-food companies so to emphasize the basic role of IPR in creating competitive market position. In this regard, first, with econometric applications we analyze the agri-food companies with a low-level IPR commitment, as typical for the agri-food sector. And second, we present a case study of an agri-food company that is high-level committed towards IPR so to emphasize its economic benefits.

Evidences for the IPR commitment are relatively scarce on micro-level studies. So far, there is not any evidence for RM regarding the perception of domestic firms about the role that IPR plays in the context of their innovation strategies. Thus, it is difficult to learn about the IPR determinants, important for raising the awareness for the IPR economic benefits in developing countries (Lopez, 2009).

## Method

The method includes two approaches. The first relies on econometric applications so to analyze agri-food companies with a low-level IPR commitment. The second is a case study approach which elaborates an agri-food company with a high-level of IPR commitment.

The econometric application relies on a balanced panel data analysis of 34 Macedonian agri-food companies,  $i = 1, \dots, 34$ , observed during the period from 2006 to 2010,  $t = 1, \dots, 5$ . Assuming linear relationship, we test the effects of the IP assets intensity (IFA), measured as a ratio between intangible and fixed assets, on the return on assets ratio (ROA) as a measure of financial performance. We specify a fixed-effects econometric model, which allows for panel data properties (1). That is, the individual variation among 34 agricultural companies and the variation within each of the companies through five years.

$$ROA_{i,t} = \alpha_i + \beta' IFA_{i,t} + \varepsilon_{i,t} \quad (1)$$

Since IP assets have a hidden value and they are usually not assigned any financial value (OECD, 2013), creates difficulties in the econometric assessment of the IFA effects on ROA. To overcome these difficulties, we introduce two additional equations that substitute ROA with its components, the net profit margin (NPM) and the assets turnover (AT). In fact, we show whether profit opportunities from the IPR commitment rely on higher sales prices or the volume of production. Thus, specifying fixed-effects models (2) and (3).

$$NPM_{i,t} = \alpha_i + \beta' IFA_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$AT_{i,t} = \alpha_i + \beta' IFA_{i,t} + \varepsilon_{i,t} \quad (3)$$

Due to a lack of data, we cover a short period that might be deficient to grasp the evolution of the IP assets into brand equity. However, we consider the model as nascent for further upgrades and possible researches.

The second approach relies on a single case study of a successful winery. The selection of the case was based on the level of importance of the wine sub-sector for the RM 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 RM (MAFWE, 2014).

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.

## Results and Discussion

### *The Low-level Committed IPR Agri-food Companies*

The results from the econometric models are presented in Table 1. Accordingly, we have found out that each additional unit of IP asset in fixed assets decreases ROA by 1% and this effect is significant at .05 confidence level. As mentioned previously, IP assets have a hidden value, so to assess the IPR's commitment effects on ROA; we decompose this ratio on its components, the net profit margin and the assets turnover. Thus, we observe whether profit opportunities from IPR commitment rely on adding to the production value or to the production volume. We have found out that the measure of the IP assets effects on the net profit margin are not significant nor the model is good, while these effects are significant and positively related to the assets turnover at .001 confidence level.

**Table 1.** Results from the econometric estimations of the fixed-effects models (1), (2) and (3)

Variables	Return on assets as dependent variable	Net profit margin as dependent variable	Assets turnover as dependent variable
IP assets intensity	-.0133* (.0067)	-.0382 (.0951)	1.6602*** (.3236)
Intercept (average)	.0183*** (.0055)	.0935 (.0780)	-.6159* (.2646)
F-test	3.94*	0.16	26.32***
R <sup>2</sup>	0.0407	0.0074	0.0005
SEE ( $\hat{\sigma}_v$ )	.0105	.14398	.5051
$\hat{\sigma}_u$	.0089	.0871	.8149
Rho	.4198	.2679	.7225
N	170	170	170

**Legend:** \* p<.05; \*\* p<.01; \*\*\* p<.001

These results show that IP assets have not evolved in brand equity, but are only investments at a historic cost that decrease financial performance of the agri-food companies. In this sense, IP assets were not considered as a strategy for creating competitive market position due to a lack of marketing investments, necessary for developing a strong brand identity that should add a high commercial value to the agri-food companies.

#### *The Case Study: A High-level IPR Committed Agri-food Company*

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 RM. In 2008, it was ranked among the top 30 global innovative wine brands by the international food and beverages trade fairs SIAL at the Wine Innovation Forum in France. 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**

There are high differences among agri-food companies in their commitments towards IPR. The vast number includes low-level IPR committed agri-food companies, where marketing investments are deficient so to transform IP assets into brand equity, therefore diminishing the need for the IPR protection. However, the consolidation of the Macedonian market into the European Union's (EU) may endanger the existence of the weaker agri-food companies. It means that the increased competition could bring to a liquidation of those agri-food companies perceived as non-competitive. The strong brand differentiation is one strategy to avoid this threat and moreover to bring to a strengthen market position. Therefore, we show a successful case and its marketing strategies in transforming IP assets into brand equity which increases its commercial value and strengthens its position on the market. We emphasize that the real economic benefits from the IPR commitment are realized only if IP assets are marketed and exploited effectively. Equally important is the legal protection of IPR, without which it would be difficult to benefit from IP as an economic asset. However, it is important to note that there is no single best way to manage IP assets and that the choice of tools depends on the company's business strategy. The most important for a business plan to be successfully provided is to jointly decide strategic decisions by managers, lawyers, employees/creators and intellectual assets consultants.

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