



Understanding the relationship between green approach and marketing innovations tools in the wine sector

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ABSTRACT

Over the last years, research about sustainability has been interesting due to growing importance of green orientation in the consumer purchasing process. In particular, in the wine industry producers' environment-friendly behaviour, in terms of organic winemaking, agricultural waste recovery, efficient water use, can represent a high-powered chance to differentiate products and to face new market challenges. Understanding consumer expectations and new purchasing trends by means of marketing tools leads the wine producers to adopt green oriented innovations. Therefore, this research sought to investigate the relationship between marketing innovation tools and green firm approach. Structured on-line questionnaires were used to ascertain the views of 280 wineries in Apulia region, in South Italy, that has a very long history as a wine producer. Findings of this study indicate that wineries with marketing innovative tools seem to have a more eco-friendly approach, since the sustainability orientation can be considered a crucial issue in the framework of the new firm competitiveness challenges. Finally, implications shed some light on the importance of adopting suitable marketing and communication tools to address wineries towards sustainability based trends.

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1. Introduction

The agri-food system has recently experienced significant changes in production, trade, and distribution systems: over the last decade, public attention has focused on the quality and environmental issues surrounding food products (Giacomarra et al., 2016). Given the economic and cultural significance attributed to wine production across many of the world's regions, it is vital that research is undertaken in order to understand and minimise the negative environmental impacts associated with the industry's activities (Christ and Burritt, 2013). It is important to share new innovative marketing knowledge and effective marketing policies to build sustainable competitive advantage in international markets of wine (Felzensztein et al., 2014; Mazzetto et al., 2013; Cotarella, 2013; Vrontis et al., 2011). For this reason, innovative marketing strategies should be combined with “exclusive” and

“secret” recipes (Dries et al., 2014). According to Christofi et al. (2015), the sustainability can advance firm financial performance, minimises business risks because and maximises market opportunities. The highly competitive environment of marketing alcoholic drinks in the international market is shifting the features of the wineries and their wine marketing strategies. As a matter of fact, wineries are increasingly required to get better marketing policies all together with their production capacity (Azabagaoglu et al., 2006). Moving from these assumptions, the hypothesis of this paper aims to verify if a correlation exists between the use of innovative marketing tools and the implementation of environmental friendly actions (use of renewable resources, adoption of organic certifications, emissions monitoring, bottle recycling and optimizing of water resources). If marketing innovation strategies in the wine supply chain are effectively introduced, a green approach seems to be a logical consequence since marketing helps firms to address processes towards new trends oriented to sustainability. According to Kuosmanen and Kuosmanen (2009) the sustainability is acknowledged as one of the key success factors in the long term business strategy of the firm. By means of Survey Monkey – an online survey software – a survey was submitted to a sample of 280 wineries, located in Apulia region (Southern Italy):

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data analysis was carried out by using the Statistical Package for Social Science (SPSS) software. A Pearson's Correlation matrix was performed to investigate whether the sustainability orientation affects marketing innovation in the wine sector: a positive correlation was expected to be found. A similar result might lead to the consideration that small and medium sized enterprises (SMEs) involved in wine supply chain, should shift towards greener business oriented models in order to sustain their market competitiveness.

The explorative study has been designed and carried out within the following Integrated Projects of Food Chain (IPFs) of the rural development programme of Apulia region – measure 124 (funded by European Agricultural Fund for Rural Development) in the wine sector: being Vitis, North wine and South wine.

The remainder of this paper is arranged as follows: section 1 provides an overview of background research on business sustainability orientation and marketing innovation in the wine sector; in section 2, material and methods are presented. Section 3 shows results. Discussion and conclusions close the paper. This study is addressed to owners, stakeholders and partners of wineries; furthermore we dedicate the results of this study to academics that are already working on this topic.

1.1. Literature review

The wine industry has lived an intense evolution over the past three decades due to the strong growth in international markets, to the rising of new competitors out of the old continent and to the continuous change in consumer behaviour. The wine market dynamics have been developing into a global competition that highlights the crucial role of the consumers' taste preferences for quality wine, that are able to satisfy more complex needs such as the hedonic and emotional aspects, the health and the respect for environment (Crescimanno and Galati, 2014; Orth and Lockshin, 2007): such innovative dynamics are positively affecting wineries' strategies.

In this context, marketing innovation can be considered as a tool for maintaining competitive advantage and achieving growth (Chen, 2006) as well as a strategy to overcome market crisis (Naidoo, 2010). Moreover, businesses are recognising the need to acquire more environmentally efficient technologies, and to reduce waste and pollution. This aspect is mainly to be attributed to the rise of the "green" consumer marking a shift in the pattern of consumer purchasing, away from products that are considered to be damaging the environment and toward increased sustainability of goods (Ristovska, 2010). Sustainability associated with grape growing and wine making is increasingly gaining a central role in operational and strategic wineries' choices: it deals with the increasing concern about the environment protection and the efficient use of natural renewable resources as reflected in public opinion and in consumers' perceptions.

1.1.1. Green orientation

Over the last decades, there has been an emerging conventional consensus that consumption patterns are currently unsustainable due to the huge consumption of non-renewable resources that is increasingly contributing to their depletion. It can be considered as one of the main ecological challenges, together with climate change, overpopulation and air pollution: researchers and scientists worldwide have been working for years to find mitigation solutions (Krausmann et al., 2009; Oreskes, 2014; Vlek and Steg, 2007). Agri-food sector, is responsible for some of the major environmental impacts, apart from the high GHG-emissions, agricultural production accounts for around 85% of global freshwater consumption (Pellegrini et al., 2016; Iannone et al., 2015; Soussana,

2014; EC, 2011a). Sectors such as agriculture, horticulture, forestry, and aquaculture contribute significantly to climate change via fertilizer and pesticide usage, embedded and production energy and materials usage for food processing, packaging and transportation related to the food production system. (Ingrao et al., 2015). If these activities are not managed according to Sustainable Development Principles (SDPs) (Bagheri, 2010) soil erosion, nutrient run-off, effluent discharge, decreased biodiversity and pest pressures, habitat loss, pesticide drift, groundwater depletion occur with serious consequences (Nilsson et al., 2004; Taylor, 2006).

The "greening" of the Common Agricultural Policy mainly focuses on protecting and enhancing the biodiversity in Europe's rural landscapes through the promotion of specific agricultural measures (EC, 2011b). The environmental pressures on the food supply chains for a higher sustainability of their production and logistic processes, lead some authors to consider desirable to implement a farm management system that is based upon sustainable agriculture practices such as, for instance, no-tillage, organic farming (Khan and Hanjra, 2009). There exist three main types of driving forces for businesses to manage sustainability in food supply chain: (i) internal drivers related to efficiency objectives, cost reductions and corporate social responsibility; (ii) external forces, market drivers such as consumers' demands for environmental sustainable products; (iii) legal drivers related to current and future regulations (Caniato et al., 2012).

In this context, the following driving forces can be identified: the access to international markets, the reputation of the enterprise, valuing systems of management, and the corporate environmental responsibility for employees' health. External factors are driving forces coming from externalities that can be divided into three aspects: the market driving forces, the government driving forces and the social driving forces (Zeng and Meng, 2011). Businesses has to face the changing in buying consumer attitudes that shift that is more oriented to sustainability.

The green consumer's buying behaviour is changing into more ethical and environmental: the 'green' consumer considers whether the product that is purchased will result in a positive or negative 'ecological consequence' to the environment (Noonan and Coleman, 2013). They are fully aware of the positive effects that occur on the environment. Several authors supported that firms are "going green" in order to differentiate their products in the markets, thus gain both prestige and competitive advantage (Forbes et al., 2009). Business is facing new challenges and opportunities for adopting good environmental practices (Diabat et al., 2014). Therefore, environmental issues is becoming a critical element of strategic planning. Less well known is whether managing environmental issues represents a potential or even beneficial entrepreneurial response in reaching a low-cost or a differentiation position, that is essential for attaining a competitive advantage in a context in which the consumers are more and more oriented to sustainability (Atkin et al., 2006).

Green manufacturing helps a firm financially by reducing waste, supporting and optimising utilisation of materials, and reducing pollution which is harmful for the environment. Green manufacturing implementation creates job opportunities by balancing the current economic crisis with the efficient use of resources (Govindan et al., 2015). Finally, sustainability becomes an issue to be integrated in the marketing strategies of the companies.

1.1.2. Marketing and sustainability criteria

The concept of sustainability in the marketing studies gained increasing importance over time: starting its journey from ecological issues, it has reached now on sustainability issues. The academic debate moved from five concepts (production, product, selling, marketing and societal marketing) with a focus on

Research question: Is there a relationship between sustainability orientation and marketing innovation in the wine sector?

Hypotheses:

- Null hypothesis is:

H0: There is **no correlation** (equivalent to saying $r = 0$)

- Alternative hypothesis' is:

H1: There is **a correlation** (equivalent to saying $r \neq 0$)

Assumptions:

- data is at continuous (scale/interval/ratio) level
- data are normally distributed
- data values are independent, unbiased samples
- a linear relationship is assumed when calculating Pearson's coefficient of correlation
- observations are random samples from normal or symmetric distributions

Structure:

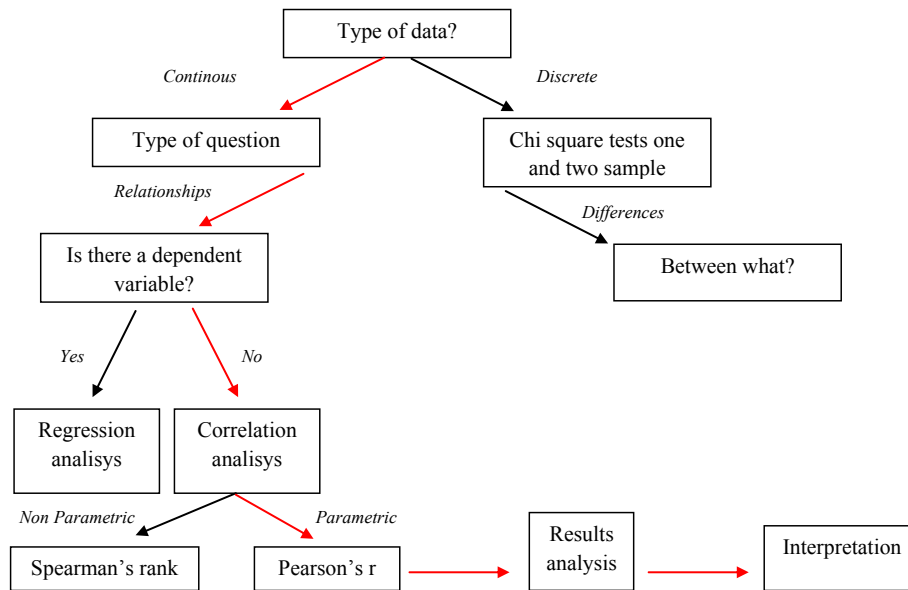


Fig. 1. Flow chart of methods (included research questions, hypotheses, assumptions and structure).

Source: our processing

consumer centric approach, which holds that marketing activities should be based on creating, communicating, and delivering superior value to targeted customers; the societal marketing concept is based on bringing social and ethical consideration into marketing activities (Kotler and Lee, 2005); currently it is widely accepted it is time to include sustainability criteria into marketing (Charter et al., 2006), which is essentially a requirement in the business because, the concept of marketing is not limited to intra-personal and inter-personal needs but it is getting extended towards needs of future generations (Dam and Apeldoorn, 1996). It can be said that company has to balance its marketing strategy in such a way that customer needs can be fulfilled after maintaining profitability, public interests and ecology (Kumar et al., 2012). While emerging literature on sustainability in marketing strategy is quite lively and rich, little is known about the relationship between the orientation to sustainability and the adoption of innovative marketing strategies. Concerning the hypothesis that the use of sustainable practices can be a driver of the adoption of marketing innovations, it emerges a lack of studies in the literature.

A wide number of researches on the topic of innovation are available in the scientific literature (Chen, 2006; Augusto & Coelho, 2009); the studies by Garcia et al. (2000) provided an overview of the issue and deepened the way the terms 'innovation' and 'innovativeness' are utilized in the literature; they proposed a wide number of definitions: according to the authors "innovation is an iterative process initiated by the perception of a new market and/or new service opportunity for a technology based invention which

Table 1

Pearson's Correlation values between marketing innovation variables and orientation to sustainability variables.

Green Var	NewMark	NewTecn	R&D	WhWinTe	RedWinTe
EnvRes	+0.240***	+0.313***	+0.303***	−0.221**	−0.203**
GreenAct	+0.143**	+0.114	+0.053	+0.014	+0.043
SustPrac	+0.359***	+0.493***	+0.470***	−0.226**	−0.211**
OrgCer	−0.263	−0.289***	−0.308	+0.196	+0.151
GIS_IT	+0.119	+0.071	+0.104	−0.081	+0.005

*** significant at 99%; ** significant at 95%; *significant at 90%.

Source: our processing

leads to development, production and marketing tasks striving for the commercial success of the invention. Moreover, some authors distinguished the concept of innovation by categorising it basing on different parameters (i.e. radical/incremental, product/process) and highlighted several methods for both measurement and observation of the innovation process through a multitude of variables (Van de Ven and Angle, 1989; Wang and Zang, 2005). Marketing innovation is a process that allows a company to achieve a competitive advantage in connection with its target market and the penetration of new markets (John and Davies, 2000; Halpern, 2010). In this context marketing innovation strategies might be possible drivers towards the sustainable approach. Sustainability in firm strategy not only helps in competitive advantage but also opens doors for cost savings and innovation processes (Kumar et al., 2012); it is rightly said that companies cannot stay for longer in the market if

they will not become truly sustainable (Kumar et al., 2012).

In order to enable greater understanding of the topic addressed in this research, the distinction between market and marketing innovation should be noted: referring to the first one, the focus is on the firm's market orientation considered as management's ability to understand customer expectations and needs that potentially can drive the product development process. Whilst, the implementation and development of innovative processes for marketing has been identified, according to some authors, such as Grewal and Tansuhaj, 2001, as an incremental trend that enables improving the quality of service rates for consumers (Dosi, 1982, Henderson and Clark, 1990). Over the years, such issues have led researchers worldwide to question themselves on the determinants of marketing innovation in the wine industry. Indeed, they have been attempting to understand the roles and drivers of innovation for small and medium-sized wineries seeking to obtain competitive advantage.

In this regard, some researchers have suggested that for many wineries the growth and market positioning are more affected by innovation than by physical factors (Voelpel et al., 2006). As a consequence, the wine industry characteristics should be carefully evaluated because they can constrain marketing innovation, since it is affected by the competitive dynamics of the sector (Malerba, 2007). In the wine industry, the innovation possibilities in terms of new varieties are subject to stringent legal restrictions concerning the regulations of origin designation: in particular, the innovative mechanism in the wine industry is not straightforward. Nevertheless the continuous and intense changes in consumption and consumers' behaviours, which feed the competitive dynamics on the global scale, increase the need for product differentiation and for production-process optimisation (Jennings and Wood, 1994). In this context, marketing innovation can assist in the formulation of differentiation strategies: some studies (Contò et al., 2016) highlighted the influence that the innovative approach has on 'wineries' abilities to improve the service level in meeting consumers' expectations. Therefore, consumers preferences are focusing on green and environmentally friendly products (Misso and Catullo, 2012). Among the few aspects of the role of the marketing innovation tools in the wine sector explored in the literature, there is the role for location in the orientation to innovation (Gilinsky et al. 2008), the consumer perception of the product's innovations (see the study on packaging by Atkin et al., 2006; Marin et al., 2007) and the influence that business networks can give in adopting an innovative behaviour (Giuliani et al., 2008; Giuliani and Arza, 2009).

2. Material and methods

This paper is an exploratory research as it seeks to provide insight in the wine sector and to fill the scientific gap on relationships between orientation to sustainability and green marketing innovations as well as suggestions for further analysis and research.

Our study takes into account as case study the Apulia region (South of Italy) that has a very long history as wine producer (Contò et al., 2014, 2015), as well as Apulian wines are very well known for their physical and organoleptic characteristics all over the world. Due to the current global economic, financial crisis and challenges in a highly competitive scenario characterized by new non EU competitors, Apulian producers are searching for new markets, although their fragmentation and small average size. European policy has crestfallen smaller wineries whose only lifeline is to bet on a niche strategy. Apulian wine sector represents for all the reasons above described a fascinating case to be investigated, and therefore, an explorative case study is here presented.

The exploratory nature requires researchers to deal with a

hybrid research designs (Harrigan, 1983), for this reason, the present research approach has been structured to track the principles by eminent scholars (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). Firstly, evidences and insights were provided for defining and listing variables to investigate. After that, the survey questionnaire was structured, previously testing it through a pre-validation step with 25 selected respondents (wine experts, international entrepreneurs, oenologists, wine routes responsible, eminent academic scholars etc.). In order to investigate the existence of the relationship between green firm approach and marketing innovation tools, the survey questionnaire was structured with several questions. Some of these questions were built with binary options, some others were developed to scaling responses; for these latter questions seven Likert Scales items have been adopted. In this regard, the authors used the following Likert rating scales (Allen and Seaman, 2007): Not a priority; Low priority; Somewhat priority; Neutral; Moderate Priority; High priority; Essential priority. The survey was structured in several sections: 1. general information; 2. firm activities; 3. competition; 4. innovation; 5. the firm and the future.

By means Survey Monkey software, a web based survey (Gilinsky et al., 2008) has been submitted to a random sample of 280 wineries that was extracted from the population of wineries involved in 3 Integrated Projects of Food Chains (IPFs) in Apulia region. These wineries were considered representative in order to provide suggestions and insights. Data collection was carried out during the period September–November 2013. A 'recall survey' step and on-site visits were also performed in order to increase the number of respondents: in particular, 204 responses have been collected, out of the 280 wineries contacted. Data analysis has been performed by using Statistical Package for Social Science software.

Within this research framework, it is hypothesised that wineries using innovative marketing tool seem to be more interested and inclined to the implementation of environmental friendly actions (use of renewable resources, adoption of organic certifications, emissions monitoring, bottle recycling and optimizing of water resources): this insight could derive from the existence of a correlation between these two analysis areas. In order to investigate our research hypothesis, we selected variables (in a dummy variable format and in a Likert Scale format) as proxies to be used to evaluate the relationship between innovative marketing choices and the green firm approach. From the 36 questions, corroborated by eminent scholars studies, more suitable questions related to our 2 research areas were selected. They are as follows:

1. Marketing innovations choices (Naidoo, 2010):

- *NewMark* variable, the importance that is assigned to new marketing tools (QR code, website, newsletter, wine club, training course etc.) [Likert rating scale variable];
- *NewTecn* variable, the importance that is assigned to new technologies implementation (use of organic, chemical and innovative substances) for reaching new market segments [Likert rating scale variable];
- *R&D* variable, if Research and Development Area is structured in the firm [Dummy variable];
- *WhWinTec* variable, if innovative techniques for white wines (e.g.: reduction in winemaking, selective cryoextraction) and relative stabilization are implemented [Dummy variable];
- *RedWinTe* variable, if innovative techniques for processing red wine are implemented [Dummy variable];

2. Orientation to sustainability (Gabzdyllova et al., 2009; Zucca et al., 2009):

- *EnvRes* variable, the importance that is assigned to the concern for the natural environment [Likert rating scale variable];

- *GreenAct* variable = the importance that is assigned to the implementation of green activities promotion [Likert rating scale variable];
- *OrgCer* variable, if organic certification is adopted [dummy variable];
- *SustPrac* variable, if sustainable practices (emissions monitoring, bottles recycling, optimizing the use of water resources) are implemented in the wineries [dummy variable];
- *GIS_IT* variable, if GIS and IT technologies are adopted in the winery [dummy variable].

The selected variables seems to be consistent with the research objectives anyway try to fill the current gap in the literature related to the main framework of this study. Fig. 1 describes the flow chart related to the methods by highlighting research questions, hypotheses, main assumptions and general structure: in red the path to be followed for understanding the general methodological structure of the paper.

From the analysis of Fig. 1, a correlation analysis was performed in order to highlight significant relationships between the variables selected in considering of the paper research framework (Hinkle et al., 2003; Lane, 2015). Correlation between sets of data is a measure of how well they are related. The Pearson Product Moment Correlation or PPMC highlights the strength of the linear relationship between two sets of data: it is used when both variables being studied are normally distributed. Pearson's correlation coefficient (r) can range from -1 (perfect negative linear relationship) to 1 (perfect positive linear relationship); 0 indicates no linear relationship between variables. Then, Pearson's r was calculated in order to measure the strength of the association between the above selected variables so to prove or reject our hypotheses. The correlation coefficient formula is specified as follows:

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{N}\right) \left(\sum Y^2 - \frac{(\sum Y)^2}{N}\right)}} \quad \text{Pearson correlation's } r \quad (1)$$

where:

x are the variables related to Marketing innovations choices; y are the orientation to sustainability variables.

This study is not investigating the issue of spurious correlations as it lacks control variables.

3. Results

The correlation matrix in Table 1 shows Pearson's Correlation values among different variables selected for testing the paper research questions. Then, the variables were split into two groups: the first group gives evidence of the wineries approach to marketing innovations (in columns); the second group of selected variables represents as a proxy for a green approach and orientation of considered firms (in rows).

Results show that most of the variables are significant at the 0.01 level (2-tailed) so enabling confirming the initial hypothesis. The correlation matrix shows that 12 of 25 originated values are significant; amongst them, there are seven that present a positive correlation.

The highest correlation value ($+0.493$) is found between *NewTecn* and *SustPrac*. The lowest significant value ($+0.143$) is found between *NewMark* and *GreenAct*. The most negative significant value of correlation (-0.289) is between *NewTecn* and *OrgCert*. The correlation among the variables *EnvRes*, *SustPrac* and marketing

innovation group variables is still significant; while the correlation among the variable *GIS_IT* and marketing innovation group variables is still no significant.

4. Discussion

Regarding the significance of the research design, findings confirm the main hypotheses on which this study was based upon and are supported by theoretical implications shown in the literature review. As shown in Table 1, the application of new technologies in order to reach new market segments is related to an environmentally friendly approach as reflected in the highest level of significance ($+0.493$) and the positive correlation between the *NewTecn* and *SustPrac* variables. Sustainable Agriculture Promotion, Green Action Promotion and Environmental Respect are becoming marketing innovation tools, that might be enable in turn firms to penetrate new market segments in order to sustain their competitiveness for SMEs in the wine sector. A negative correlation between the use of new technologies and Organic Certification adoption was found, probably due to the use of traditional and conservative agricultural practices of Italian firms being far from adopting new technologies. So, it could be argued that orientation to sustainability is shifting manufacturers to a strategy which remains rooted to the old farmer traditions (negative correlation with organic agriculture) and is increasingly creating the foundation for more technology-based sustainable innovation. Indeed, wineries with a Research and Development area are sure conscientious and skilled of new environmental challenges on ethically correct consumption. It might induce firms to develop process and production innovations primarily through sustainable agricultural and wine-making practices, such as efficient use of water for irrigation operations and the reuse of washing water. The positive correlation between the following variables;

1. *NewMark* and *EnvRes* (0.240);
2. *NewMark* and *GreenAct* (0.143);
3. *NewTecn* and *EnvRes* (0.313)

highlights how orientation to sustainability is taking a central and crucial role in the operational and strategic choices of wineries thank to the marketing innovative strategies and tools.

The environment respect can be interpreted as a crucial driver to connect firm strategies to market: it becomes an economic need as well as a moral obligation for the wineries. This approach allows to optimise operating costs and to increase the company's reputation (Christofi et al., 2015). In this sense, environmental respect can be understood as a factor that affects the innovative marketing approach and viceversa. The promotion of green activities within the company raises awareness in the importance of adopting an innovative approach (environment friendly) aimed to environmental protection and food safety. Consistent with the first two correlations, the adoption of sustainable agricultural and industrial technologies and practices can take the role of real distinctive communication lever useful to penetrate different market segments (especially upper segments). The use of GIS and IT technologies can be functional in order to monitor the production cycle, energy efficiency, quality certification of products and cycles, and land protection. However, the correlation among the variable *GIS_IT* and marketing innovation group variables is still no significant. This is unexpected result because GIS technology allows to visualize and to disseminate the results of the analysis, enabling it to be easily accessible by researchers, professionals, workers within the sector. This free availability of information represents a starting point to promote Italian wines. GIS fundamental tools are able to provide accurate climate, soil type and geomorphology information. The

innovative techniques for obtaining white wines are particularly powerful as shows the negative correlation between the variables *EnvRes* and *WhWinTe*. Wine-making with the reduction of oxygen, selective cryoextraction and the relative stabilisation are so techniques that require high energy levels. The same observations could be made after reviewing the results obtained from the correlation between *EnvRes* and *RedWinTe*. Indeed, the grapes processing, cleaning and sanitizing processing monitoring in order to obtain healthy grape are particularly impacting actions.

5. Conclusions

Wine consumers are becoming increasingly interested in green issues so that the concept of environmental sustainability can act as a relational channel between wineries and customers: the environmental policy of firms positively influences consumer purchasing behaviour, therefore marketing strategies can help wineries to address firm green choices for, improving financial performance, minimising costs and business risks and maximising market opportunities (Christofi et al., 2015). Considering this background, the paper investigated the correlation between the orientation to sustainability and marketing innovation tools in the wine industry.

The analysis of paper dataset collected among the population of Apulia wineries shows that the orientation to the sustainability of the observed wineries is positively correlated to the adoption of innovative marketing tools and actions. It emerges that the use of new technologies to penetrate new markets shows a positive correlation with the adoption of sustainable production practices and the environmentally-friendly approach.

As some scholars suggested (Mishra and Sharma, 2012), the “green marketing concept” aims at sustainable marketing and socially responsible products (non-toxic and environmentally friendly); it is increasingly becoming an important driver for management and for matching profitability and sustainability issues. Overall, the environmentally efficient technologies are positively correlated with the innovative marketing choices, because of the increasing importance of concerns regarding the environment and the efficient use natural renewable resources have in public opinion and in consumers perception. A critical success factor for the wineries becomes the ability to communicate to their target market by providing information on their degree of environmental respect. Further research is clearly necessary to test and refine these findings: the orientation to sustainability of firms can be considered a tool for reaching and maintaining competitive advantage and to face market crisis (Chen, 2006). In this context, the study carried out could be considered as the starting point to revise the policies of firms and to introduce into these latter marketing innovation tools and so the adoption of more eco-friendly processes and products, that allow to achieve a competitive advantage and to penetrate new market segments by reaching consumers’ preferences.

Finally, the drawbacks of the paper can be linked to its exploratory nature. Some limitations can be highlighted; firstly the relative small sample constrained the application of some statistical procedures (e.g., PCA procedure). Secondly, the variables selected are not exhaustive and represent only a proxy for the study's objectives. Furthermore, the surveyed wineries belong to the IPFs: in considering the nature and characteristics of some of these projects, the participating firms can be more driven towards developing an innovative and green approach. The sample of companies could be expanded numerically, but also to include firms and wineries not participating in IPFs.

This exploratory research is ongoing and its findings are far from being final. Further empirical research is needed to test and validate

the essentially preliminary framework developed and the assumptions made for the purpose of the current study. Other variables could be included regarding the analysis of marketing innovation approach and a green orientation. Specifically, secondary data that are available through research and official statistics could also be included in order to make the current study more inclusive and robust.

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Sitography

<http://www.minambiente.it/pagina/il-progetto-viva-sustainable-wine>.