Title
Can Consumers Distinguish between Environmental Wine Certifications? Choosing between Biodynamic, Fair Trade, Natural, Organic and Sustainable.

I want to submit an abstract for:
Conference Presentation

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Keywords
environment, sustainability, biodynamic, natural, fairtrade, organic, WTP, asymmetric information, contingent valuation

Research Question
What consumers think about different environmental certification and if there is a willingness to pay for it?

Methods
A review of the literature and a survey of consumers in US, Netherlands, S. Africa, Chile, Australia, and France.

Results
Likely not have complete results by time of conference.

Abstract
Background of the Study:
Consumers are inundated with many options when purchasing a bottle of wine. There are so many decisions that must be made. Do they pick their favorite winery, varietal or region of the world? Are they motivated by price, ratings, or recommendations from friends or experts? To add to these difficult choices, wineries and distributors are increasingly advertising wine which are produced with reduced environmental impacts. They are often labelled or certified through third parties. How does a consumer choose between the many types of beneficial environmental certifications? Do they even know there are differences? And do they care? Given that many wineries are seeking expensive and exclusive certifications and adapting their production and marketing systems,
this research seeks to elucidate what consumers know about certifications. This should enable wineries to better position their environmental wine product in the market. Do consumers know that Biodynamic wine is a holistic, ecological and ethical approach to farming? It even includes preparations made from fermented manure, minerals and herbs to help restore and harmonize the vital life forces of the farm like soil and to enhance the nutrition, quality, and flavor of the food being raised. Or that Fair Trade is a model of sustainable, ethical trade that puts people and planet first? They support responsible companies, empower farmers, workers, and fishermen, and protect the environment. Or maybe they have seen and understand Organic as being produced without prohibited substances and genetic engineering? These grapes are grown without synthetic fertilizers and in a manner that protects the environment and preserves the soil. And if yeast goes into making the wine it also must be certified organic or do they prefer a Natural wine that has no additives or ‘unnatural’ processes such as yeasts, sulfites, vitamins, enzymes, chemicals, reverse osmosis, cryoeextraction or powdered tannins? Generally speaking, the wine produced that year is a representation of a piece of land in a particular year – because nothing is added. Or possibly they like a Sustainable wine that is made with three main goals: environmental stewardship, economic profitability and social and economic equity? Wine makers do this by pursuing healthy and productive vines for current and future generations, taking care of those that work the land and giving back to the community - all while furthering their business goals. For consumers it is certainly confusing since there is no ranking of which certification system is better and there are so many options available in the marketplace and so many certification bodies for each.

Purpose of the study:
This research has two objectives. First, it builds from previous work, initiated through collaboration at the AAWE, on sustainable wine tourism (Villanueva & Moscovici, 2016), sustainable viticulture practices (Moscovici, 2018), organic wine production benefits (Mihaiescu, 2017), global sustainability certifications (Moscovici & Reed, 2018; Alonso Ugaglia et al., 2016), performance management systems of Chilean wineries (Valenzuela & Maturana, 2016) and designing a three-dimensional performance measurement system for the wine industry (Valenzuela & Maturana, 2016). In these papers and at presentations, reviewer comments and feedback from audience members always wondered what the consumers thought about sustainability and if there was a willingness to pay for it? Researchers have debated the benefits of the different certifications and considered a special issue comparing them all. As far as the researchers have found, there is currently a gap in the literature on these questions. The literature mainly addresses the topic of sustainable wine consumption either via prices (Delmas & Grant, 2014) and expert ratings analysis (Delmas et al. 2016), or via experiential consumption (Bazoche et al., 2008). Our proposal is different, and will usefully complement these previous studies in differentiating the different types of sustainable certifications. Our project will be the first to begin such a differentiation between Biodynamic, Fair Trade, Organic, Natural and Sustainable wines and could have significant benefits to both the consumers and producers.

The second objective is to reveal consumer preferences for the different certifications by associating willingness to pay values to each through the application of contingent valuation methodology. A positive willingness to pay (WTP) for different sustainable wine certifications would act as a signal to wine producers in different countries to increase resources allocated towards increasing particular types of organic wine production. The merit of contingency valuation methodology usage in wine research has been widely documented (Holohan & Remaud, 2014; Sellers-Rubio & Nicolau-Gonzalbez, 2016; Mihaiescu & Hecht, 2018; Vecchio, 2013; and Pomarici & Vecchio, 2014).

Theoretical Considerations:
A fundamental issue in understanding consumer choice is asymmetric information. AI arises when buyers and sellers of a product have differing amounts of information about the product being traded, so the asymmetry puts the less informed side at a potential disadvantage in the transaction (Marks, 2015). In the case of wine, the initial asymmetry for the consumer is the initial choice of what varietal or blend to purchase. This reduction in asymmetry is rapidly reduced after several repeat purchases of either red or white wine and then if desired, particular varietals within those colors, to establish preferred purchase patterns and associated willingness to pay. An additional level of complexity is then added when environmental considerations are overlaid on the initial AI problem which seems ‘solved’ from a buyer perspective. The different environmental definitions are complex and not easily explained and significant overlap between the various types (biodynamic, fair trade, organic, natural, sustainable) claiming environmental certification exists. The AI problem for consumers with the introduction of
environmental considerations into their choice set when purchasing a bottle of wine has now become potentially
overwhelming.
Contingent Valuation is a method of estimating the value that a person places on a good or certain characteristics
or aspects of a good. The approach asks people to directly report their willingness to pay (WTP) to obtain a
specified good, or willingness to accept (WTA) to give up a good, rather than inferring them from observed
behaviors in regular market places. Contingent valuation has its roots in valuing environmental services, although
its utilization has expanded to other fields like public health in more recent times. It is the only technique capable
of placing a value on commodities that have a large non-use component of value.

Proposed methodology and data collection:
Our presentation/paper will include a review of the literature and a discussion of our design and methodology. We
will not likely have results finalized by June 2018. The methodology involves a survey of consumers. The survey is
divided into three sections. The first asks consumers about their backgrounds and habitat with respect to wine.
Questions include: motivations for drinking, favorite varietals, purchasing behaviors, and self-evaluated wine
knowledge. The second set of questions will collect perspectives and opinions on the various multiple
environmental wine certifications. Questions will include: which certifications they have heard of, if they have
purchased any certified wine, future willingness to purchase certified wine, premium willing to pay for said wine,
ranking of certifications, interest in further information about certifications, and labelling. Finally, the third set of
questions collects demographic information such as country of residence, gender, age, education and marital
status. The research design included existing research, builds from other wine surveys, and was done in
collaboration with the authors and a vineyard/winery owner in the United States.
The survey will be disseminated via an embedded link using the Qualtrics survey platform. Research Principal
Investigators are located in the United States, Netherlands, and Chile. The collaboration may increase as the
project further develops. The goal is to survey 500 consumers in each country selected for survey. At this time this
includes: USA, Netherlands, Chile, S. Africa, Australia, France with possible additions in Italy and Germany. Surveys
will be added to wine mailing lists, Facebook posts from wineries, newsletters, university distribution groups, and
more. We will collect surveys for an entire year in the hope of getting significant number of observations for
statistical analysis.
The authors believe that all of these certifications have merit in helping to develop products that are better for
communities, workers, the environment, consumers and more. However, the growth in certifications and certifying
bodies, without proper education, transparency, and consistency will only further exacerbate the information
problems consumers face when they purchase a bottle of wine. Additionally, the results of the research should
represent a signal for wine producers in their quest to sell more wine and deliver assurances to the consumers on
the quality of the wine purchased.

Works Cited:
what are the drivers for adoption? 10th Annual AAWE Conference, 21-25 June, Univ. Bordeaux, France.
environmental characteristics. EAAE 2008, 12th Congress of the European Association of Agricultural Economists.
Society, 53(1), 6-44.
Consumer Sales Proc. 8th Int. Conf. Acad. Wine Bus. Res. Hochschule Geisenheim University, Geisenheim,
Germany (pp. 1–13).
industry.” Research in Hospitality Management. Accepted and forthcoming.
into the South African market.” Competence Centre for Tourism Management and Tourism Economics (TOMTE) of
the Free University of Bolzano/Bozen, Brunico/Bruneck, Italy. Abstract available online: http://www.cbsts2017.org
New Jersey, USA.” Journal of Sustainable Agricultural Management and Informatics. Accepted and forthcoming.

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