

Vienna 2019 Abstract Submission

Title

Wine Consumers Market Sustainability: An International Study

I want to submit an abstract for:

Conference Presentation

Corresponding Author

Lionel Valenzuela

E-Mail

lionel.valenzuela@usm.cl

Affiliation

School of Business - Universidad Técnica Federico Santa Maria - Chile

Keywords

Sustainability, wine consumers, International

Research Question

The principal aim of this study was to ascertain how sustainability—represented as certification of various kinds—was valued by wine consumers in a select group of wine producing and consuming countries

Methods

The principal methodological stages developed for this research study, namely: sample collection, survey design and field work.

Results

Thus far, 2,630 survey responses have been received, or 66% of the sampling target. It was observed that the wines most preferred by consumers are Cabernet Sauvignon (18.7%) and Carmenere

Abstract

Wine Consumers Market Sustainability: An International Study

Authors:

Lionel Valenzuela - Director, School of Business - Universidad Técnica Federico Santa Maria - Santiago, Chile
Daniel Moscovici - Associate Professor, Environment & Sustainability - Stockton University - Atlantic City, U.S.A.
Radu Mihalescu - Senior Lecturer, Economics and the Economics of Tourism - Stenden University - Leeuwarden, Netherlands
Adeline Alonso Ugaglia - Associate Professor, Economics - Bordeaux Sciences Agro, ISVV, UMR 1065 SAVE - Bordeaux, France
Jeff Gow - Professor, Economics - University of Southern Queensland - Toowoomba, Australia
Azzurra Rinaldi - Professor, Economics - Università degli Studi di Roma Unitelma Sapienza - Rome, Italy

Introduction

The importance of sustainability in production and consumption is gaining increasing importance in nearly all industries in the world. This is especially true in the food industry. Proof of this is found in consumers' wanting information about the products they buy. They have grown more demanding and want to know what inputs are used in food production and processing, producers' labor standards, and the environmental impacts of production (Trienekens et al., 2012; Pullman et al., 2009; Paloviita, 2010). The wine industry is no exception to this trend. It is under considerable pressure from both customers and regulators to evaluate, reduce and report its environmental

and social impacts (Christ & Burritt, 2013), and to incorporate sustainability into its management practices.

While the importance of sustainability is recognized and endorsed through certifications, such as Biodynamic, Fair Trade, Organic, Natural, and Sustainable, to mention just a few, it is not known whether consumers perceive wine companies' efforts to obtain them as being valuable.

Study Objective

The principal aim of this study was to ascertain how sustainability—represented as certification of various kinds—was valued by wine consumers in a select group of wine producing and consuming countries in the world. To this end, the following specific objectives were proposed:

1. Bibliographic analysis of sustainability and its impact on wine consumers
2. Development of a wine consumer survey instrument
3. Analysis of survey responses from wine consumers

Literature Review

There are around 300 definitions of sustainability (Manderson, 2006). Elkington's (1997) definition, known as the Triple Bottom Line (TBL), is the most often cited. TBL defines three principles of sustainability:

- Environmental Integrity: to ensure that human activity does not diminish the Earth's resources, i.e., land, water, and air.
- Social Equality: to ensure all members of society have equal access to resources and opportunities.
- Economic Prosperity: to promote a reasonable quality of life through the productive capacity of organizations and individuals in society (Holliday et al., 2002).

Regarding sustainability in the wine industry, the research carried out by Szolnoki (2013) is noteworthy where in-depth interviews with 55 companies in the United States, France, Germany, Italy, Spain, Hungary, and Greece were undertaken. The study found that most respondents associated sustainability solely with environmental or green topics, although a few respondents also considered it applicable to economic and social issues.

Others works, initiated through collaboration at the AAWE, on Can Consumers Distinguish between Environmental Wine Certifications? Choosing between Biodynamic, Fair Trade, Natural, Organic and Sustainable (Moscovici et al., 2018); sustainable wine tourism (Villanueva & Moscovici, 2016); sustainable viticulture practices (Moscovici, 2018); organic wine production benefits (Mihailescu, 2017); global sustainability certifications (Moscovici & Reed, 2018; Alonso Ugaglia et al., 2016); Sustainability and its Impact on Chile's Vineyards (Valenzuela et al., 2017); Performance management systems of Chilean wineries (Valenzuela & Maturana, 2016a); and designing a three-dimensional performance measurement system for the wine industry (Valenzuela & Maturana, 2016b). In these papers and at presentations, reviewer comments and feedback from audience members always wondered what 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.

Finally, the literature mainly addresses the issue of sustainable wine consumption through wine prices. They point to Vecchio's (2013) research, which demonstrates the positive impact that the attribute of "sustainability" has on a wine's final value, because customers are willing to pay between 23-57% more than the average price. In New Zealand, Forbes et al. (2009) also established that consumers believe that the quality of sustainable wines is superior to that of conventional wines and are thus prepared to pay higher prices for them.

Methodology for Wine Consumer Survey

To achieve the research objectives, each of the participating researchers in the project, representing the United States, Australia, Chile, France, Italy, Holland, South Africa, and a category for Other; were tasked with performing field work through online surveys. The survey instrument was developed and trialed in all countries prior to establishing a Qualtrics Survey platform to access wine consumers in the participating countries through an embedded link.

Below are the principal methodological stages developed for this research study, namely: sample collection, survey design and field work.

Sample Selection

The research sample was to be obtained through convenience sampling, and the goal was to have 500 surveys completed in each of the eight participating countries. Eligibility criteria for the selection of respondents were that they were adults who were habitual consumers of wine. Exclusion criteria included those who worked in the wine or

hospitality industries.

Survey Structure

The survey was divided into three sections. The first asked consumers about their backgrounds and habits with respect to wine knowledge and consumption. Questions include: motivations for drinking, favorite varietals, purchasing behaviors, and self-evaluated wine knowledge. The second set of questions collected perspectives and opinions on the various multiple environmental wine certifications. Questions included: which certifications they have heard of, if they have purchased any type of certified wine, future willingness to purchase certified wine, the premium they are willing to pay for said wine, ranking of certifications, interest in further information about certifications, and labelling. Finally, the third set of questions collected demographic information such as country of residence, gender, age, income, education and marital status.

Field Work

To reach the goal of carrying out 500 surveys in each country, each researcher disseminated the survey through wine newsletters and social networks, especially LinkedIn and WhatsApp.

Results (Initial)

Thus far, 2,630 survey responses have been received, or 66% of the sampling target. It was observed that the wines most preferred by consumers are Cabernet Sauvignon (18.7%) and Carmenere (9.7%). Respondents give as their main reasons for drinking wine that: "I like the flavor", and "It goes well with food". With respect to actual purchases, they ranked organic wines highest, biodynamic wines second, and fair trade wines third. Over 50% of respondents said they would be willing to pay for certified sustainable wines, with 40% stating they were prepared to pay up to US\$5 more for a bottle of wine with sustainable certification. Finally, 36% of all respondents said that of all certifications, the one they considered extremely important or most important was sustainability.

Regarding Willingness to Pay the model run was a Binomial Multiple Logistic Regression that was needed in order to identify the different parameters that influenced the price paid for Bio certified wines. The formula used is $WTP_{ij} = \alpha + \beta_1 (P_j) + \beta_2 Y_j + \beta_3 \pi_j + F(Z_j)$ Where: WTP_{ij} i consumer's willingness to pay for j type of wine. Coefficients to be estimated, where P is the organic price premium; Y Income level; π quality attributes perceptions; Z Socio-demographic characteristics. Preliminary results for selected data for Chile and United States revealed that the respondents WTP were positively influenced by taste, the place of origin of the wine, expert advice. One factor that seems to have a negative influence on the WTP seems to be the age of wine.

Further detailed results will be forthcoming at the conference.

References:

- Alonso Ugaglia, A., Cardebat, J.M., Dupuy, L. & Sloop, S. (2016). Sustainability certifications in the wine industry: what are the drivers for adoption? 10th Annual AAWE Conference, 21-25 June, Univ. Bordeaux, France.
- Christ, K. & Burritt, R. (2013). Critical environmental concerns in wine production: an integrative review. *Journal of Cleaner Production* 53, 232-242.
- Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Capstone, Oxford.
- Forbes, S.L., Cohen, D.A., Cullen, R., Wratten, S.D., Fountain, J. (2009). Consumer attitudes regarding environmentally sustainable wine: an exploratory study of the New Zealand marketplace. *Journal of Cleaner Production* 17, 1195-1199.
- Holliday, C., Schmidheiny, S., Watts, S., (2002). *Walking the Talk: The Business Case for Sustainable Development*. World Business Council for Sustainable Development: Geneva, Switzerland.
- Holohan, W. & Remaud, H. (2014). The impact of eco-friendly attributes on Bordeaux wine tourism and Direct to Consumer Sales Proc. 8th Int. Conf. Acad. Wine Bus. Res. Hochschule Geisenheim University, Geisenheim, Germany.
- Manderson, A.K. (2006). A systems based framework to examine the multi- contextual application of the sustainability concept. *Environment, Development and Sustainability* 8 (1), 85-97.
- Mihailescu, R. (2017). Can a focus on organic wine production create benefits for the tourism industry? An enquiry into the South African market. Competence Centre for Tourism Management and Tourism Economics (TOMTE) of the Free University of Bolzano/Bozen, Brunico/Brunneck, Italy. Abstract available online: <http://www.cbts2017.org>
- Mihailescu, R. & Hecht, K. (2018). Evaluating the demand for introducing quality labeling in the South African wine industry. *Research in Hospitality Management* Accepted and forthcoming.
- Moscovici, D. (2017). Finding a State of Sustainable Wine: Implications for Sustainable Viticulture and Oenology in New Jersey, USA. *Journal of Sustainable Agricultural Management and Informatics*. Vol. 3, No. 3. pp. 196-214.
- Moscovici, D., Mihailescu R., Valenzuela, L., Ugaglia, A. & Gow, J. (2018). Can Consumers Distinguish between Environmental Wine Certifications? Choosing between Biodynamic, Fair Trade, Natural, Organic and Sustainable. 12th Annual AAWE Conference, 10-14 June, Ithaca, NY, USA.

- Moscovici, D. & Reed, A. (2018). Comparing Wine Sustainability Certifications around the World: History, Status, and Opportunity. *Journal of Wine Research*. Vol. 29, Iss. 1. pp. 1-25.
- Paloviita, A. (2010). Consumers' Sustainability Perceptions of the Supply Chain of Locally Produced Food. *Sustainability* 2, 1492-1509.
- Pullman, M., Maloni, M., Carter, C. (2009). Food for thought: Social versus environmental sustainability practices and performance outcomes. *Journal of Supply Chain Management* 45 (4), 38-54.
- Szolnoki, G. (2013). A cross-national comparison of sustainability in the wine industry. *Journal of Cleaner Production* 53, 243-251.
- Trienekens, J.H., Wognum, P.M., Beulens, A.J.M., Van der Vorst, J.G.A.J., (2012). Transparency in complex dynamic food supply chains. *Advanced Engineering Informatics* 26, 55-65.
- Valenzuela, L & Maturana, S. (2016a). A new balanced scorecard approximation to enhance performance management systems of Chilean wineries. *Journal of Wine Research* 27(1), 1-18.
- Valenzuela, L. & Maturana S. (2016b). Designing a three-dimensional performance measurement system (SMD3D) for the wine industry: A Chilean example. *Agricultural Systems* 142, 112-121.
- Valenzuela, L., Moscovici, D., Tapia, J. & Yanine, F. (2017). Sustainability and its Impact on Chile's Vineyards. 10th International Conference of AWBR, 25-28 July, Sonoma, USA.
- Vecchio, R. (2013). Determinants of Willingness-to-Pay for Sustainable Wine: Evidence from Experimental Auctions. *Wine Economics and Policy* 2(2), 85-92.
- Villanueva, E. & Moscovici, D. (2016). Sustainable Wine Tourism Development in Burgeoning Regions: Lessons from New Jersey and Connecticut. *International Journal of Economics and Business Research* 12(4), 313-333.

File Upload (PDF only)

- [Wine-Consumer-Market-Sustainability-An-International-Study-23-12-18.pdf](#)

Privacy

- Wine Consumers Market Sustainability: An International Study
- By using this form you agree with the storage and handling of your data by this website.

Wine Consumers Market Sustainability: An International Study

Authors:

Lionel Valenzuela – Director, School of Business – Universidad Técnica Federico Santa María – Santiago, Chile

Daniel Moscovici – Associate Professor, Environment & Sustainability – Stockton University – Atlantic City, U.S.A.

Radu Mihailescu – Senior Lecturer, Economics and the Economics of Tourism – Stenden University – Leeuwarden, Netherlands

Adeline Alonso Ugaglia – Associate Professor, Economics – Bordeaux Sciences Agro, ISVV, UMR 1065 SAVE – Bordeaux, France

Jeff Gow – Professor, Economics – University of Southern Queensland - Toowoomba, Australia

Azzurra Rinaldi – Professor, Economics – Università degli Studi di Roma Unitelma Sapienza – Rome, Italy

Introduction

The importance of sustainability in production and consumption is gaining increasing importance in nearly all industries in the world. This is especially true in the food industry. Proof of this is found in consumers' wanting information about the products they buy. They have grown more demanding and want to know what inputs are used in food production and processing, producers' labor standards, and the environmental impacts of production (Trienekens et al., 2012; Pullman et al., 2009; Paloviita, 2010). The wine industry is no exception to this trend. It is under considerable pressure from both customers and regulators to evaluate, reduce and report its environmental and social impacts (Christ & Burritt, 2013), and to incorporate sustainability into its management practices.

While the importance of sustainability is recognized and endorsed through certifications, such as Biodynamic, Fair Trade, Organic, Natural, and Sustainable, to mention just a few, it is not known whether consumers perceive wine companies' efforts to obtain them as being valuable.

Study Objective

The principal aim of this study was to ascertain how sustainability—represented as certification of various kinds—was valued by wine consumers in a select group of wine producing and consuming countries in the world.

To this end, the following specific objectives were proposed:

1. Bibliographic analysis of sustainability and its impact on wine consumers
2. Development of a wine consumer survey instrument
3. Analysis of survey responses from wine consumers

Literature Review

There are around 300 definitions of sustainability (Manderson, 2006). Elkington's (1997) definition, known as the Triple Bottom Line (TBL), is the most often cited. TBL defines three principles of sustainability:

- Environmental Integrity: to ensure that human activity does not diminish the Earth's resources, i.e., land, water, and air.
- Social Equality: to ensure all members of society have equal access to resources and opportunities.
- Economic Prosperity: to promote a reasonable quality of life through the productive capacity of organizations and individuals in society (Holliday et al., 2002).

Regarding sustainability in the wine industry, the research carried out by Szolnoki (2013) is noteworthy where in-depth interviews with 55 companies in the United States, France, Germany, Italy, Spain, Hungary, and Greece were undertaken. The study found that most respondents associated sustainability solely with environmental or green topics, although a few respondents also considered it applicable to economic and social issues.

Others works, initiated through collaboration at the AAWE, on Can Consumers Distinguish between Environmental Wine Certifications? Choosing between Biodynamic, Fair Trade, Natural, Organic and Sustainable (Moscovici et al., 2018); sustainable wine tourism (Villanueva & Moscovici, 2016); sustainable viticulture practices (Moscovici, 2018); organic wine production benefits (Mihailescu, 2017); global sustainability certifications (Moscovici & Reed, 2018; Alonso Ugaglia et al., 2016); Sustainability and its Impact on Chile's Vineyards (Valenzuela et al., 2017); Performance management systems of Chilean wineries (Valenzuela & Maturana, 2016a); and designing a three-dimensional performance measurement system for the wine industry (Valenzuela & Maturana, 2016b). In these papers and at presentations, reviewer comments and feedback from audience members always wondered what 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.

Finally, the literature mainly addresses the issue of sustainable wine consumption through wine prices. They point to Vecchio's (2013) research, which demonstrates the positive impact that the attribute of "sustainability" has on a wine's final value, because customers are willing to pay between 23-57% more than the average price. In New Zealand, Forbes et al. (2009) also established that consumers believe that the quality of sustainable wines is superior to that of conventional wines and are thus prepared to pay higher prices for them.

Methodology for Wine Consumer Survey

To achieve the research objectives, each of the participating researchers in the project, representing the United States, Australia, Chile, France, Italy, Holland, South Africa, and a category for Other; were tasked with performing field work through online surveys. The survey instrument was developed and trialed in all countries prior to establishing a Qualtrics Survey platform to access wine consumers in the participating countries through an embedded link.

Below are the principal methodological stages developed for this research study, namely: sample collection, survey design and field work.

Sample Selection

The research sample was to be obtained through convenience sampling, and the goal was to have 500 surveys completed in each of the eight participating countries. Eligibility criteria for the selection of respondents were that they were adults who were habitual consumers of wine. Exclusion criteria included those who worked in the wine or hospitality industries.

Survey Structure

The survey was divided into three sections. The first asked consumers about their backgrounds and habits with respect to wine knowledge and consumption. Questions include: motivations for drinking, favorite varietals, purchasing behaviors, and self-evaluated wine knowledge. The second set of questions collected perspectives and opinions on the various multiple environmental wine certifications. Questions included: which certifications they have heard of, if they have purchased any type of certified wine, future willingness to purchase certified wine, the premium they are willing to pay for said wine, ranking of certifications, interest in further information about certifications, and labelling. Finally, the third set of questions collected demographic information such as country of residence, gender, age, income, education and marital status.

Field Work

To reach the goal of carrying out 500 surveys in each country, each researcher disseminated the survey through wine newsletters and social networks, especially LinkedIn and WhatsApp.

Results (Initial)

Thus far, 2,630 survey responses have been received, or 66% of the sampling target. It was observed that the wines most preferred by consumers are Cabernet Sauvignon (18.7%) and Carmenere (9.7%). Respondents give as their main reasons for drinking wine that: "I like the flavor", and "It goes well with food". With respect to actual purchases, they ranked organic wines highest, biodynamic wines second, and fair trade wines third. Over 50% of respondents said they would be willing to pay for certified sustainable wines, with 40% stating they were prepared to pay up to US\$5 more for a bottle of wine with sustainable certification. Finally, 36%

of all respondents said that of all certifications, the one they considered extremely important or most important was sustainability.

Regarding Willingness to Pay the model run was a Binomial Multiple Logistic Regression that was needed in order to identify the different parameters that influenced the price paid for Bio certified wines. The formula used is $WTP_{ij} = \alpha + \beta_1 (P_j) + \beta_2 Y_j + \beta_3 \pi_j + F(Z_j)$ Where: WTP_{ij} i consumer's willingness to pay for j type of wine. Coefficients to be estimated, where P is the organic price premium; Y Income level; π quality attributes perceptions; Z Socio-demographic characteristics. Preliminary results for selected data for Chile and United States revealed that the respondents WTP were positively influenced by taste, the place of origin of the wine, expert advice. One factor that seems to have a negative influence on the WTP seems to be the age of wine.

Further detailed results will be forthcoming at the conference.

References:

Alonso Ugaglia, A., Cardebat, J.M., Dupuy, L. & Sloop, S. (2016). Sustainability certifications in the wine industry: what are the drivers for adoption? *10th Annual AAWE Conference*, 21-25 June, Univ. Bordeaux, France.

Christ, K. & Burritt, R. (2013). Critical environmental concerns in wine production: an integrative review. *Journal of Cleaner Production* 53, 232-242.

Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Capstone, Oxford.

Forbes, S.L., Cohen, D.A., Cullen, R., Wratten, S.D., Fountain, J. (2009). Consumer attitudes regarding environmentally sustainable wine: an exploratory study of the New Zealand marketplace. *Journal of Cleaner Production* 17, 1195-1199.

Holliday, C., Schmidheiny, S., Watts, S., (2002). *Walking the Talk: The Business Case for Sustainable Development*. World Business Council for Sustainable Development: Geneva, Switzerland.

Holohan, W. & Remaud, H. (2014). The impact of eco-friendly attributes on Bordeaux wine tourism and Direct to Consumer Sales *Proc. 8th Int. Conf. Acad. Wine Bus. Res.* Hochschule Geisenheim University, Geisenheim, Germany.

Manderson, A.K. (2006). A systems based framework to examine the multi- contextual application of the sustainability concept. *Environment, Development and Sustainability* 8 (1), 85-97.

Mihailescu, R. (2017). Can a focus on organic wine production create benefits for the tourism industry? An enquiry 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.cbts2017.org>

- Mihailescu, R. & Hecht, K. (2018). Evaluating the demand for introducing quality labeling in the South African wine industry. *Research in Hospitality Management* Accepted and forthcoming.
- Moscovici, D. (2017). Finding a State of Sustainable Wine: Implications for Sustainable Viticulture and Oenology in New Jersey, USA. *Journal of Sustainable Agricultural Management and Informatics*. Vol. 3, No. 3. pp. 196-214.
- Moscovici, D., Mihailescu R., Valenzuela, L., Ugaglia, A. & Gow, J. (2018). Can Consumers Distinguish between Environmental Wine Certifications? Choosing between Biodynamic, Fair Trade, Natural, Organic and Sustainable. *12th Annual AAWE Conference*, 10-14 June, Ithaca, NY, USA.
- Moscovici, D. & Reed, A. (2018). Comparing Wine Sustainability Certifications around the World: History, Status, and Opportunity. *Journal of Wine Research*. Vol. 29, Iss. 1. pp. 1-25.
- Paloviita, A. (2010). Consumers' Sustainability Perceptions of the Supply Chain of Locally Produced Food. *Sustainability* 2, 1492-1509.
- Pullman, M., Maloni, M., Carter, C. (2009). Food for thought: Social versus environmental sustainability practices and performance outcomes. *Journal of Supply Chain Management* 45 (4), 38-54.
- Szolnoki, G. (2013). A cross-national comparison of sustainability in the wine industry. *Journal of Cleaner Production* 53, 243-251.
- Trienekens, J.H., Wognum, P.M., Beulens, A.J.M., Van der Vorst, J.G.A.J., (2012). Transparency in complex dynamic food supply chains. *Advanced Engineering Informatics* 26, 55-65.
- Valenzuela, L & Maturana, S. (2016a). A new balanced scorecard approximation to enhance performance management systems of Chilean wineries. *Journal of Wine Research* 27(1), 1-18.
- Valenzuela, L. & Maturana S. (2016b). Designing a three-dimensional performance measurement system (SMD3D) for the wine industry: A Chilean example. *Agricultural Systems* 142, 112–121.
- Valenzuela, L., Moscovici, D., Tapia, J. & Yanine, F. (2017). Sustainability and its Impact on Chile's Vineyards. *10th International Conference of AWBR*, 25-28 July, Sonoma, USA.
- Vecchio, R. (2013). Determinants of Willingness-to-Pay for Sustainable Wine: Evidence from Experimental Auctions. *Wine Economics and Policy* 2(2), 85-92.
- Villanueva, E. & Moscovici, D. (2016). Sustainable Wine Tourism Development in Burgeoning Regions: Lessons from New Jersey and Connecticut. *International Journal of Economics and Business Research* 12(4), 313-333.