

## **Sustainability: Implementation programs and communication in the leading wine producing countries**

**Bastian Klohr**

Heilbronn University, Germany  
[bastian.klohr@hs-heilbronn.de](mailto:bastian.klohr@hs-heilbronn.de)

**Ruth Fleuchaus**

Heilbronn University, Germany  
[ruth.fleuchaus@hs-heilbronn.de](mailto:ruth.fleuchaus@hs-heilbronn.de)

**Ludwig Theuvsen**

Georg-August-University Goettingen, Germany  
[theuvsen@uni-goettingen.de](mailto:theuvsen@uni-goettingen.de)

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- *Purpose: Sustainability has become a major objective of the discussion in the global wine business. In some wine growing nations sustainability certifications have been developed and implemented. Certifications indicate new characteristics for consumers to evaluate wine. In our study we analysed these certifications in relation to the question how sustainability is realized. Similarities and differences between the individual certifications might essentially affect the future perception of consumers concerning the credibility of sustainability approaches in wine industry.*
  - *Method: The study includes the six most important certification programs for sustainability in the global wine business. In a qualitative research these programs have been analysed. Therefore, we examined the history of each program, the issuing organisation, and the implemented indicators for sustainability, the control mechanism and the consumer communication.*
  - *Findings: We found substantial differences of the approaches concerning sustainability across regions and nations. The programs differ both regarding content, i.e. transfer of the complex sustainability issues into measurable indicators, as concerning the organizational form. A common understanding of sustainability across regional or national borders does not exist by now. The international programs primarily focus on environmental aspects. The integration of social and economic aspects in the deliberations concerning sustainability is still insufficient.*
  - *Practical implications: Representative organisations are required to develop comprehensive, industry-relevant and practicable guidelines for sustainability in the wine business. Thereby, the social and economic aspects should be brought into focus. Further research concerning the effects of sustainability certifications in the field of consumer behaviour should be intensified.*

**Key words:** sustainability, quality management system, consumer behaviour, wine

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## **1. INTRODUCTION**

Sustainability is an integral part of the transsectorial public discourse. Sustainable products are based on ecologically, socially and economically viable production conditions. On the one hand, the general public's interest in sustainability leads to an increased demand for information. This is especially true for those consumers who realign their consumption habits with sustainability criteria. On the other hand, producers of FMCG (incl. wine) deal with the topics of sustainable entrepreneurship and sustainable production. For this purpose, in the wine industry various approaches have been developed which are implemented on a national or regional level (Gemrich and Arnold, 2007). However, a common standard for sustainability in the wine business does not exist until now. Therefore, the objective of the paper at hand is the comprehensive analysis of the existing sustainability activities in the wine business. Firstly, existing knowledge is presented, followed by an assessment of fields currently under discussion in that context, including an illustration of the underlying assumptions, which divert across nations. Concluding, research areas are identified which have to be explored for the development of a common international basis for sustainability in the wine business.

## **2. THE TERM OF SUSTAINABILITY**

### **2.1. Foundation and implementation**

The term sustainability is historically ascribed to Hans Carl von Carlowitz and his publication *Sylvicultura Oeconomia* (Grundwald and Kopfmüller, 2006). Based on the idea of an economy that shall prevail on a long-term horizon and which aligns resources in a sustainable way, the foundation for a multi-dimensional understanding of sustainability was laid out. Only an equal consideration of the three dimensions of sustainability – an ecologic, economic and social dimension – in decision making would lead to the achievement of the main objectives, which are intergenerational justice and future viability (BMU, n.d.). Thus, sustainability and sustainable business could only be achieved through the equal combination of environmentally sound and resource-saving activities, social justice and enduring economic success.

The identification of criteria for the assessment of the degree of sustainable entrepreneurship can be made on the basis of several issues within each of the three dimensions. The Global Reporting Initiative (GRI, 2012) set internationally recognized guidelines for sustainability reporting. Core indicators within the three dimensions of sustainability are defined which should be included for sustainability reporting, as well as additional indicators which may be included for sustainability reporting. Yet, the sustainability indicators presented by the GRI are unspecific and the transferability to a specific sector is limited. Following, there is the need for additional research regarding industry specific sustainability criteria for the wine sector.

### **2.2. Considerations in the wine business**

Until now the existing sector-specific considerations for sustainability display a major focus to the environmental impacts of the industry (Gemrich, 1998; Santini and Cavicchi, 2011). Especially carbon emissions attracted a lot of attention in the wine business over the last

years (Ponstein and Gemmrich, 2012). The social and economic sustainability dimensions are largely left discounted. There are explicit legal requirements regarding organic viticulture, but there is a lack of international congruence regarding sustainability definitions for the wine sector. Yet, the operationalization of internationally recognized sustainability indicators in terms of transparency, credibility and effectiveness is critical to consumer behavior. The operationalization of these indicators can lead to the declaration of products with sustainability-related statements and sustainability labels. The process of assessment of sustainable entrepreneurship and production can be regarded as a management system for structural improvement in wine producing entities and, additionally, can create an USP with the potential to increase sales to consumers (Gemmrich and Bezner, 2011).

### 3. MATERIAL AND METHODS

Using a qualitative research method we analyzed six different implementation programs for sustainability in the wine business. In recent years numerous activities under the topic of sustainability have been introduced. Therefore, the selection of the analyzed programs was determined by three main facts. Firstly, we wanted to cover the most important wine producing and exporting countries all over the world. Therefore, five out of the six analyzed programs are established in countries that are ranked in the top 8 wine exporting countries by volume (OIV 2013). Secondly, we identified such programs which require a serious certification, in contrast to mainly communication-driven and unaudited activities. Due to the inexistence of programs fulfilling this requirement no countries of the top 3 wine exporting countries are included. Finally, in countries with more than one serious certification system we choose that program which has the highest coverage of the regions production. This is why we took Certified California Sustainable Winegrowing over other programs in the United States. In the end, six implementation programs which are shown in Table 1 have been included in our survey.

**Table 1.** Overview of included sustainability programs

Sustainable Winegrowing New Zealand	Entwine Australia	Sustainable Wine South Africa	FairChoice (Germany)	Certified Sustainable Wine of Chile	Certified California Sustainable Winegrowing
					

These programs have been analyzed in a qualitative study covering different questions. At first, we answered the question which organization represents the program. A powerful organization as well as a relatively long history could be important determinants of a successful system. To evaluate the success of a program we examined the relevance of a program in its country. This was used as an indicator for the acceptance of sustainability in a producing nation in general.

In addition, it is necessary to consider which criteria are used to evaluate sustainability as well as to examine the implementation of the three-pillar system mentioned earlier. A reliable and objective control mechanism is important for the credibility of a program. In addition, the wide-spread implementation is crucial for the success of the program in consumer communication.

## **4. RESULTS**

### **4.1. History, representation and relevance**

The programs in the New World can look back on an experience in sustainable practices for up to 20 years and are mostly launched by winegrower associations or other representatives. For instance, the foundation for Sustainable Winegrowing New Zealand was laid in 1995 by an industry initiative and had been developed since then (NZ Wine, 2013a). The same applies to Certified California Sustainable Winegrowing which had been developed by the Californian Wine Institute and the California Association of Winegrape Growers since 2002 (California Sustainable Winegrowing Alliance, 2010). With a look on the program pursued in South Africa we can see how a certification system could be build up by the cooperation and integration of different organizations and certifications. Sustainable Wine of South Africa has integrated the Wine and Spirit Board (Country of Origin legislation), Integrated Production of Wine (quality management), Biodiversity & Wine Initiative (environment) and Wines of South Africa (communication) (Sustainable Wine South Africa, 2013a). Ongoing, SWSA plans to integrate another scheme for fair labour practices (Sustainable Wine South Africa, 2013b).

The relevance in the national wine business is supported by the industry representation which executes the programs. Therefore, the share of the programs in South Africa and New Zealand reach up to 90% of the total wine production (NZ Wine, 2013b). Certified Sustainable Wine of Chile and FairChoice developed 2011 in Germany are still in the start-up phase (Klohr et al., 2012). Therefore both programs have not achieved much relevance, yet. The industry representation in Chile is the initiator of the program (Consortios del Vino Vinnova, 2011), which seems to be a crucial success factor according to the other analyzed programs.

### **4.2. Indicators for sustainability and implementation of the three-pillar system**

As mentioned earlier, the approaches and programs differentiate concerning measurable indicators for the evaluation of sustainability. In New Zealand and Australia the program`s content is based on existing ecological or environmental certifications (NZ Wine, 2013b; Entwine Australia 2013a). This leads to the perception that these two programs did not include social or economic aspects in their evaluation of sustainability. The programs in South Africa, Germany, Chile and California have developed their own criteria to evaluate sustainable practices. These cover, more or less, the complete production chain of wine with a focus on viticulture and enology. The widely discussed carbon footprint is only required in the programs Entwine Australia (2013b) and FairChoice (Deutsches Institut für Nachhaltige Entwicklung, 2013).

Having a deeper look on the indicators of the programs in South Africa, Germany, Chile and California we attributed the individual criteria to the three pillars of sustainability. In most cases the programs already did this attribution by the verbalization of different topics within the list of criteria. Overall, the comparison shows that criteria primarily focus on the environmental dimension of sustainability (Table 2).

**Table 2.** Overview of sustainability aspects in the programs

<b>Sustainable Winegrowing New Zealand</b>	<b>Entwine Australia</b>	<b>Sustainable Wine South Africa</b>	<b>FairChoice</b>	<b>Certified Sustainable Wine of Chile</b>	<b>Certified California Sustainable Winegrowing</b>
Environmental	Environmental	Environmental	Environmental Social Economic	Environmental Social	Environmental Social

The programs Sustainable Winegrowing New Zealand (NZ Wine 2013a), Entwine Australia (2013b) and Sustainable Wine South Africa (South African Wine and Spirit Board, 2009) currently lack of social and economic aspects. Nevertheless, we found another certification system for ethical trade covering social aspects in South Africa. This program WIETA is also provided by Wines of South Africa (WIETA 2012). This program might be integrated in the sustainability certification in the near future.

Certified California Sustainable Winegrowing (California Sustainable Winegrowing Alliance, 2010) and Certified Sustainable Wine of Chile (Consortios del Vino Vinnova, 2011) integrated social criteria. All programs mentioned by now recognize the importance of social and economic aspects. But they have not implemented economic criteria so far. FairChoice, developed in Germany 2010, provides a complete implementation of environmental, social and economic aspects.

#### **4.3. Control mechanism**

An effective implementation and communication of sustainability needs credible control mechanisms. This distinguishes the analyzed certification programs from the widespread unaudited individual statements of numerous wineries all over the world.

Sustainable Winegrowing New Zealand and Entwine Australia recognize already completed external certifications concerning ecological or environmentally sound production (cf. 3.2.). Therefore, these two programs have no separate audit. Certified Sustainable Wine of Chile and Certified California Sustainable Winegrowing have implemented a two-tier system. In the first stage wineries perform a self-assessment. In the case of Certified California Sustainable Winegrowing wineries can already participate in a non-certified sustainability program at this stage. In a second stage the efforts are certified by a third party audit. FairChoice and Sustainable Wine South Africa require such an external review to ensure the organization's efforts.

#### **4.4. Communication**

The analyzed sustainability programs allow the communication of the completion of the program by the wine producer. The use of communication tools such as flyers, websites and mailings is encouraged. The consumer communication and communication towards other stakeholders is essential for the success of sustainability programs. The logos of the programs represent a new characteristic to identify wine. Sustainability can create added value for the producers and his products (Loveless et al., 2010; Müller and Remaud, 2010; Müller et al., 2011). Therefore, in most cases the logo or seal of the program can be used in labeling of the product. Only the program Certified California Sustainable Winegrowing prohibits the usage of the logo on the label (California Sustainable Winegrowing Alliance, 2010).

It is crucial to know to what extent consumers respond to the use of sustainability claims and logos in product labeling. However, research on consumer behavior in this field is only at the beginning. Some recent surveys suggest that there is a limited influence of sustainability within the buying decision of a rather small cluster of wine consumers (Loveless et al., 2010; Müller and Remaud, 2010; Müller et al., 2011). In an ongoing research project at Heilbronn University in collaboration with Georg-August-University Goettingen the influence of sustainability factors on German wine consumers is measured. First results of this research using lifestyle segmentation confirm that there is a consumer segment which is valuing sustainable production. The included choice based conjoint method suggests that there are differences in the evaluation of the various claims within the dimensions of sustainability.

### **5. CONCLUSION AND DISCUSSION**

The ongoing endeavors suggest that sustainability has become a key issue for the global wine industry. The certification programs regarding sustainability pursued by now on the national level focus on different aspects. The programs differentiate both by their content, i.e. transfer of the complex sustainability issues into measurable indicators, as also in their organizational form. The comparison between the New and the Old World reveals that the structures of the Old World lead to sustainability activities which are primarily related to single wine growing regions. This is underlined by the examples from Bordeaux, Champagne, Franconia, Rhinehessen, etc. (Comité Interprofessionel du Vin de Champagne, 2010; Gebietsweinwerbung Frankenwein-Frankenland, 2011; Rheinhessenwein, 2011). Contrary, programs of the New World exhibit systems which are implemented at a national level. Examples can be found in Australia, Chile, New Zealand, South Africa and California (California Sustainable Winegrowing Alliance, 2010; South African Wine and Spirit Board, 2009; NZ Wine, 2013a; Winemakers' Federation of Australia, 2009, Consorcios del Vino Vinnova, 2011). National programs can lead to the occurrence of a new product characterization or even replace existing seals by sustainability seals (South African Wine and Spirit Board, 2009).

In principle, it is crucial to create a common understanding of sustainability in order to minimize uncertainty concerning the internal and outward communication (Klohr et al., 2012; Szolnoki et al., 2011). This common understanding is necessary for an effective and

beneficial consumer communication. From the presented international efforts it can be concluded that the integration of economic and, partly, social dimension is still insufficient. In addition, there is no comprehensive sustainability assessment carried out and only in some sections indicators are defined and evaluated. An assessment of the sustainability activities, however, requires an equivalent inclusion of all three dimensions of sustainability (Grundwald and Kopfmüller, 2006).

Finally, there is a strong need for the development of comprehensible, industry-relevant and practicable guidelines for the assessment of sustainability in the wine industry. On the one hand their operationalization should facilitate the efficiency in the wineries and therefore contribute to the advancement of the entire wine sector. On the other hand this should generate positive impulses to the marketing in the sense of satisfying an increased request by consumers. For analysis of the increased consumer request in sustainability statements for wine, the Heilbronn University set up an ongoing research including lifestyle segmentation and choice based conjoint analysis. First results confirm the importance of sustainability and single claims connected to sustainability. Further results will be published in summer 2013.

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