**Padua 2017 Abstract Submission**

**I want to submit an abstract for:**
Conference Presentation

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**Keywords**
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**Research Question**
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**Methods**
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**Results**
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**Abstract**

**Introduction**
One central research topic in strategic management is the difference in performance between organizations (Rao, 1994). In wine research, two determinants of performance have been found to be important for consumer decisions, namely quality and reputation (Landon and Smith, 1997). A wide range of studies have focused on the quality aspects of wines, such as e.g. the weather (Ashenfelter, 2008), grape variety and quality as well as production technologies (Charters and Pettigrew, 2007). However, as Benfratello et al. (2009) have shown, reputation might be even more important than wine quality. A possible reason is the reduction of information asymmetries, as consumers cannot evaluate wine quality prior to purchase (Akerlof, 1970; Landon and Smith, 1997).

Recently, eco-certifications and eco-labels have become increasingly important. Simultaneously, the demand for organic products has increased. In the wine industry, however, eco-labels have been found to cause negative associations and are often assumed to be correlated with inferior quality, whereas eco-certifications seem to induce customers to pay a price premium (Delmas and Grant, 2013). An explanation might be that organically produced wines taste better (Delmas et al., 2016), although consumers unfamiliar with such wines perceive eco-labeled wines as inferior (Delmas and Grant, 2013). Consequently, eco-wine producers seem to have less reputation among particular consumer groups. Nevertheless, due to the fact that quality is a factor that influences reputation, eco-wine producers should outperform traditional wineries in terms of reputation in the long run.

**Theoretical Background**
According to the resource-based view, organizational performance is determined by its tangible (e.g. machines, goods) and intangible (e.g. knowledge) resources (Wernerfelt, 1984; Barney, 1991). An expansion of this approach is the natural-resource-based view emphasizing the importance of a firm’s ecological behavior (Hart, 1995). Reputation as well as certifications are two important intangible resources for organizations. Both resources signal quality to the consumer and help to reduce information asymmetries (Akerlof, 1970).

Eco-certification can be considered a signaling strategy by certifying the organic cultivation and production of grapes and wines. In contrast to eco-labeling, eco-certification is not directly visible on the wine bottle but known to wine connoisseurs. Therefore, Delmas and Grant (2008) argue that eco-certification leads to improved reputation even without eco-labeling. Hence, I assume that eco-certification results in a better firm performance of
wineries in a highly competitive environment. While several studies have examined the use of eco-labeling strategies, only few have investigated the impact of eco-certifications related to wine. Moreover, to the best of my knowledge, no study has so far looked at the interaction between winery reputation and eco-certification.

Method
To investigate this relationship, I use an unbalanced panel data set of German wineries from all 13 German wine-growing regions over the period 1994 to 2016. The data set includes all wineries listed in Gault Millau (the most renowned German wine guide of which the first edition appeared in 1994) in the specific year, with 17,140 winery-year-observations (n=1,576 wineries). Wineries can enter or exit the Gault Millau in each year. The winery’s reputation ranges from 0.5 to 5 grapes and is based on the wine quality of each winery in the last five to ten years with focus on the recent development and the actual wine quality. Eco-certification is determined by membership in an ecological and/or biodynamic wine association (e.g. Bioland, Demeter). Membership information (including VDP membership) is taken from the Gault Millau. After comparing different parametric survival models using the Akaike Information Criterion, I estimate a Weibull AFT survival model with firm survival as dependent variable. Furthermore, several dummy variables (e.g. VDP membership), various interaction terms and control variables are included (e.g. firm characteristics, region, time trend and the first publication year).

The estimates are of the following general form:

\[
\log(FS) = \beta_0 + \beta_1 \text{REP1} + \beta_2 \text{REP2} + \beta_3 \text{REP3} + \beta_4 \text{REP345} + \beta_5 \text{Eco} \times \text{REP1} + \beta_6 \text{VDP} + \beta_7 \text{VDP} \times \text{Eco} + \beta_8 \text{TT} + \beta_9 \text{D1994} + \beta_{\Sigma RD} + \sigma
\]

where

- Log(FS): Firm survival (number of years listed in wine guide, Min. 1; Max. 23; Mean 13.91)
- REP: Reputation (measured by wine guide, Min. 0.5; Max. 5.0; Mean 1.62; Std. Dev. 1.12)
- Eco-certification: Individual membership in eco-certified and/or biodynamic wine association (0 = no; 1 = yes)
- Eco \times REP: Interaction of eco-certification and reputation dummies REP1, REP2, REP3, REP4, REP5
- VDP: Membership in Association of German Quality Wine Estates (0 = no; 1 = yes)
- VDP \times Eco-certification: Interaction of VDP membership and eco-certification
- TT: Linear time trend (1994=1, 1995=2, ... ,2016=23)
- D1994: Winery already included in first edition (0 = no; 1 = yes)
- \Sigma RD: Vector of 13 region dummies (reference: Württemberg)

Results
As displayed in Table 1, reputation, eco-certification and VDP membership have a statistically significant and positive impact on the survival of wineries in a highly competitive environment. The interaction between eco-certification and reputation shows that especially wineries with a particularly high individual reputation benefit from eco-certification. However, eco-certification has no effect on wineries that are VDP members. The linear time trend controls for a potential “softening” of the inclusion criteria applied by Gault Millau (the number of wineries included in the guide has increased considerably over time), but could not be confirmed.

Table 1: Survival Model
Variable Hazard Ratio Robust Std. Err. z
REP1 0.078 0.013 -15.46***
REP2 0.029 0.008 -12.33***
REP3 0.005 0.003 -7.64***
Eco-certification 0.634 0.138 -2.09**
Eco \times REP1 1.579 1.044 0.69
Eco \times REP2 1.204 1.388 0.16
Eco \times REP3 0.000 0.000 -12.56***
Eco \times REP4 0.000 0.000 -10.14***
Eco \times REP5 0.000 0.000 -7.84***
VDP 0.499 0.134 -2.58***
VDP \times Eco 2.358 1.775 1.14
TT 0.999 0.008 -0.11
D1994 0.336 0.239 -1.53
RD included
Constant 0.049 -14.48***
N of Wineries 1,576
N of Failures 579
N of Observations 17,140
LL Null Model -1,631
LL Full Model -1,087
Wald Chi2 5.743***
p < .10; ** p < .05; *** p < .01

Conclusion
Summarizing, I find evidence to support the hypothesis that eco-certified wineries outperform traditional wineries in a highly competitive environment. Especially wineries with a high individual reputation seem to benefit from eco-certification. Furthermore, my results confirm previous research demonstrating a positive impact of VDP membership (Frick and Simmons, 2013), this time on firm survival. The results suggest that wineries should strive for an eco-certification to improve their long-term performance.

References

File Upload (PDF only)
- Survival-of-the-Fittest.pdf
Survival of the Fittest: The Impact of Eco-certification on the Performance of German Wineries
Patrizia FANASCH
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Introduction
One central research topic in strategic management is the difference in performance between organizations (Rao, 1994). In wine research, two determinants of performance have been found to be important for consumer decisions, namely quality and reputation (Landon and Smith, 1997). A wide range of studies have focused on the quality aspects of wines, such as e.g. the weather (Ashenfelter, 2008), grape variety and quality as well as production technologies (Charters and Pettigrew, 2007). However, as Benfratello et al. (2009) have shown, reputation might be even more important than wine quality. A possible reason is the reduction of information asymmetries, as consumers cannot evaluate wine quality prior to purchase (Akerlof, 1970; Landon and Smith, 1997).

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