

# The Finicky Grape Winery Action Research in Wine Accounting

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## ***Abstract:***

*Purpose:* A project designed to build a knowledge base of wine industry-specific useful practices was undertaken over a two-year period. The vehicle for the project was a case exercise in cost accounting that brought together winery professionals and academics. The project constituted both a) action research for organization development, through direct benefits to participating wineries, and b) classroom action research via reflective learning.

*Design:* A case documenting the story of a fictitious winery in Oregon, U.S.A. was developed for use in a 2014 administration of a cost accounting course, then improved and enhanced for the 2015 administration of the course. Design and implementation of the project followed the discovery-action-reflection model of action research, and provided a foundation for a strengthened industry/academic partnership through the reflective process of classroom action research.

*Findings:* Student course evaluations, feedback from participating wine professionals, and structured reflections by the instructor across the two iterations of the course revealed that the case exercise led to acquisition and dissemination of knowledge in wine accounting.

*Practical Implications:* Developing a knowledge base of cost accounting practices specific to the wine business is beneficial for the local industry. The immersive process of developing the exercise provided the instructor with insights to further improve the students' educational experience, while building stronger connections between the academic program and the local wine community.

**Keywords:** Wine accounting, action research, classroom action research, cost accounting, Oregon wine

## **1. INTRODUCTION**

As in other wine regions throughout the world, a lack of industry-specific accounting knowledge is a challenge for the growing Oregon wine industry. The wine industry presents an additional layer of complexity for the accountants, over and above typical cost accounting practices, and there is a lack of wine industry-specific research in the published accounting literature. In Oregon, most small wineries do not employ an accountant on staff.

An Oregon college has taken a step toward building a knowledge base to support the industry with solid accounting knowledge and practices. A vehicle for building this knowledge base is a comprehensive case exercise in wine accounting used in a cost accounting course.

Development and implementation of the exercise took the form of an action research project, in which local wine industry experts worked in partnership with the course instructor (this paper's first author) and students.

## **2. LITERATURE REVIEW**

### **2.1. The Oregon Wine Industry and Wine Accounting**

The first wine grapes may have been planted in Oregon, U.S.A. as early as 1847. The modern era of Oregon wine, however, was launched in large part by a handful of pioneers who settled in the Umpqua Valley and Willamette Valley in the 1960s (Oregon Wine, 2015). By the 1970s Oregon was considered a newly established wine region with an emphasis on artisanal and sustainable growing and production. (Hall and Paris, 2001).

With more than 600 wineries, Oregon is now the third largest wine grape producing state in the U.S., (Oregon Wine, 2015). Although Oregon is best known for Pinot noir and Pinot gris, 72 wine grape varieties are grown in the state (Oregon Wine, 2015). The focus on small batch, artisan, and sustainable wine continues to typify Oregon's approach (Wagner et al. 2013).

Most Oregon wineries are small, producing fewer than 5,000 cases per year (Oregon Wine, 2015).

Wine operations typically have a long cash/operating cycle, and often consist of a mix of farming (grape growing and vineyard management), manufacturing (winemaking and bottling), and distribution. These factors present an additional layer of complexity in cost accounting practices for wineries. Properly trained professional accountants can help wineries navigate this complexity, and assist winery professionals in preparing financial reports for use by investors, creditors, managers, and others, and in making key operational decisions in such areas as product/price mixes and capital purchases.

Small wineries like the majority of those in Oregon, typically do not employ an accountant on staff. Accordingly, there is a substantial local need for accountants with wine industry specific accounting knowledge. At the same time there is a dearth of wine-specific accounting research in the academic literature and in accounting textbooks. Incorporating a comprehensive wine industry case in a cost accounting course was a way to begin to build a stronger local base of knowledge in wine accounting.

### **2.2. Action Research**

Action research is applied research focused on understanding a problem and creating

practical solutions for that problem. Reason and McArdle (2007) have identified several defining factors of action research. It is pragmatic, addressing practical issues and linking theory and practice. It is democratic, allowing people to create their own knowledge via communities of multiple ways of inquiry. It makes use of knowing and is developmental in nature, building on previously generated knowledge. Finally, it is value-oriented, seeking to contribute to the well-being and effectiveness of people and their communities.

Action research follows a cyclical pattern of discovery, action, and critical reflection aimed toward positive growth, generally including active participation by those who are affected by the research, (Adelman, 1993). The case exercise discussed in this paper resulted from a joint process of discovery, action and critical reflection among constituencies of faculty, students, and wine professionals, with the aim of positively impacting the local wine industry. The process of critical reflection was carried further by the course instructor, through a process of *classroom* action research, to strengthen and improve the students' educational experience.

### **2.3. Classroom Action Research**

Classroom action research (Mettetal, 2001), is an application of the general action research approach. Its goal is to help instructors reflect upon their teaching practices and inform decision making about future teaching activities. The general framework for classroom action research consists of goals, information, methods, results, reflection, and presentation.

#### **2.3.1. GOALS**

In this step, the instructor reflects on the overall goal or problem related to student learning. In the case of the accounting course described here, the goal was to develop an experiential learning activity to enhance students' understanding of wine accounting. This goal was somewhat novel for a cost accounting classroom. Such experiential activities are common in other areas of business education such as management and marketing, but accounting-focused experiential activities are less common.

#### **2.3.2. INFORMATION**

Here, the instructor reviews relevant information, literature, and data to design the project. The instructor reviewed several cost accounting resources when building the learning activity (e.g. Cropsey and Peters, 1982; Dal Poggetto, 1985; Scott and Swain, 1997). To ensure accuracy and relevance of the wine industry content of the exercise, consultation with industry professionals was another critical component of this step.

#### **2.3.3. METHODS AND RESULTS**

The intent of these steps is to plan and carry out a methodology for assessing the effectiveness of the educational activity. In the cost accounting course described here, triangulation of feedback was accomplished by seeking structured feedback from students and industry partners, and combining that feedback with the instructors' reflections. There were two iterations of this assessment process implemented after the first and second administrations of the course.

#### **2.3.4. REFLECTION AND PRESENTATION**

In these final steps, the instructor reflects on what was learned from implementation of the educational activity, takes action based upon what is learned, and disseminates the results. In the class activity described here, critical reflection led to improvements in the second administration of the class exercise.

### **3. METHOD**

An experiential learning exercise was developed as the case of a fictitious Oregon, USA winery in need of accounting practitioners with winery-specific knowledge. Students in a senior-level cost accounting course learned about the wine industry and its specific accounting practices in order to build an extensive set of financial projections to help the fictitious winery make key financial decisions.

The students began with knowledge of financial accounting and, during the first part of the course studied the basics of cost accounting. Next, they learned about the wine industry through reading, videos, discussion and, in the second administration of the exercise, a visit to a local winery. They then were introduced to the case through ‘the story’ of the fictitious winery, certain financial information from the winery owner’s business plans. The students were then asked to build seven-year financial forecasts to be used by the owners for the benefit of the winery. The forecasts were built as spreadsheets designed to be highly flexible and adaptable to facilitate many iterations of the exercise.

The financial projection building process took several weeks and was punctuated by critical review from several industry experts who met with the students to discuss their work. These discussions focused on the reasonableness of the projections and on the quality of the assumptions, estimates and methodologies used, which invariably led the students to improve their forecasts. These improvements included changes to grape and packaging costs, switching from in-house bottling to outsourcing via a bottling truck, and changes to costs and types of capital assets needed by the winery.

At the end of the exercise, the students’ projections were viewed and critiqued at a high analytical level by a wine accounting expert from a local public accounting firm. This expert has several decades of extensive wine accounting experience for hundreds of wineries/vineyards. Although students did receive feedback from wine industry experts and their instructor, they did not have any high-level analytical accounting conversations until their discussion with this wine accounting expert. The students presented, discussed and defended their work with the wine accounting expert as a culmination of the exercise.

### **4. RESULTS**

#### **4.1. First Administration of the Case Exercise**

The first administration of the case exercise took place during the spring semester of 2014. At that time, the case was called “The Finicky Grape Winery” exercise.

##### ***4.1.1. INSIGHTS FROM STUDENT EVALUATIONS***

Student evaluations from the first administration of the case exercise indicated that students had gained industry-relevant accounting knowledge and skills in the areas of:

1. The integration of financial and cost accounting
2. ‘Real-world’ accounting experience
3. Understanding winery operations and finances

The students also indicated improvement of future projects ought to include:

1. A visit to a real winery

2. More spreadsheet instruction prior to the start of the project
3. More specific instructions for student work

#### ***4.1.2. INSIGHTS FROM INDUSTRY PROFESSIONALS***

Feedback from industry professionals who participated in the first administration of the exercise indicated:

1. The story and nature of the fictitious winery was realistic
2. Industry professionals were prompted towards self-reflection of their business practices
3. The exercise was a good start towards understanding wine accounting

Industry professionals' suggestions for improvement included:

4. Build statements of cash flows in the forecasts and use a longer forecast period
5. Improve sales volume timing projections
6. Make the relationship between distributor sales and its costs reasonable

#### ***4.1.3. INSIGHTS FROM INSTRUCTOR REFLECTIONS***

Instructor reflections after the first administration of the exercise indicated a fair beginning with opportunities for significant improvement. Following Mettetal's (2001) rubric for assessing classroom action research, an assessment of each of the steps in the classroom action research framework is presented here (needs improvement, on target, or exemplary), along with a brief explanation of the reason for the assessment provided.

**Table 1: Assessment of Classroom Action Research after First Administration**

	Needs Improvement	On Target	Exemplary
Goals			Clearly stated, fit well with learning and teaching and guide action
Information	Little relevant wine-accounting literature was available.		
Methods		Knowledge of accounting and wine-specific accounting was connected with the industry experts.	
Results		Communication of results was done through spreadsheet presentation.	
Reflection		Reflection of teaching, learning and industry-connections served to improve the following year's exercise.	
Presentation		The instructor wrote a paper about this experience and presented it at an academic conference.	

#### **4.2. Summary of Improvements Made to the Exercise after Its First Administration**

As a result of the above assessment, the second administration of the exercise included: a field-trip to a local winery, more spreadsheet instruction prior to the start of the project, a longer forecast period (from five years to seven) and cash flow statements. Whereas some students from the first administration of the class had suggested more specific instructions the instructor actually chose to provide fewer specific instructions during the second administration of the exercise. This deliberate choice resulted from a desire to treat the students as equals and set the authoritative instructor/student relationship aside for the purposes of the client-facing case exercise.

### **4.3. Second Administration of the Case Exercise**

The second administration of the case exercise took place during the spring semester of 2015. At that time, the case was called the “It’s Accrual World” exercise.

#### **4.3.1. INSIGHTS FROM STUDENT EVALUATIONS**

Student evaluations from the second administration of the case exercise indicated again that students had gained industry-relevant accounting knowledge and skills in the areas of: the integration of financial and cost accounting, real-world accounting experience, and understanding winery operations and finances. Students also noted:

1. The field trip to a local winery helped the students obtain a deeper hands-on knowledge of the wineries and winery accounting
2. Their confidence in client-contact, spreadsheet work and book-to-real-world knowledge had been enhanced

The students also indicated improvement of future projects should include:

1. Even more spreadsheet instruction prior to the start of the project
2. Improved structure for presentation and discussion with winery experts

#### **4.3.2. INSIGHTS FROM INDUSTRY PROFESSIONALS**

Feedback from industry professionals who participated in the second administration of the exercise indicated:

1. The exercise produced realistic financial projections
2. The exercise engaged the industry professionals into self-reflection of their business practices and a greater curiosity towards, and appreciation of, accounting
3. The knowledge students gained is expected to produce value for the local wine industry

Industry professionals’ suggestions for improvement included:

1. Use a fictitious winery that wishes to add additional types of wine (SKUs) at particular price-points; build a spreadsheet model that facilitates this.
2. Use a fictitious winery that grows its own (estate) grapes (the first two administrations of the exercise were for wineries that only bought grapes).
3. Conclude the exercise with a higher level of analysis; for example, do an in-depth conceptual analysis of the relationships between how each type (SKU) of wine production and sales drives significant costs.

#### **4.3.3. INSIGHTS FROM INSTRUCTOR REFLECTIONS**

Instructor reflections after the second administration of the exercise indicated substantial improvements over the first administration with continued room for improvement.

Learning objectives were successfully achieved and the instructor agreed with the students’ observations that both “soft” skills (Boyce, Williams, et al, 2001) (such as listening, diagnosis, and oral communication) had improved as a result of the exercise, and that there had been a substantial improvement in technical spreadsheet skills through the iterative process of spreadsheet building required in the case.

**Table 2: Assessment of Classroom Action Research after Second Administration**

	Needs Improvement	On Target	Exemplary
Goals			Clearly stated, fit well with learning and teaching and guide action
Background Information		Improved information sources were available	
Methods			A higher quality of analysis was done.
Results		Communication of results was done through spreadsheet presentation.	
Reflection		Reflection of teaching, learning and industry-connections improved the second year's exercise.	
Presentation			This paper attempts to present this work and these results with a wider audience.

## 5. SUMMARY AND IMPLICATIONS

This project was designed to be a collaborative effort between an educational institution and the local wine industry, with the goal of advancing knowledge in wine accounting. The case exercise was a realistic vehicle for engaging students in the study of wine accounting as part of their cost accounting course. Learning from this project extended across the student, faculty, and winery professionals, and served to strengthen ties between the college and the local wine community. A bonus of the project for students was a considerable increase in both technical skills in accounting and in “soft skill” competencies.

Limitations of this study include a lack of quantitative assessment (e.g., pre-post) on wine accounting-related knowledge among students, faculty and wine professionals. In future administrations of the exercise, such a design will be useful to consider.

Overall, we believe this project demonstrates one creative way to conduct wine research that matters: collaborative action research that supports educational goals while benefiting the wine industry in an underexplored area of inquiry (wine accounting). We share our experience with this project in the spirit of Zalan and Lewis (2014), who advocated for



collaborative efforts among members of the scholarly community not only in research, but also in the area of wine-related education.

## REFERENCES

Adelman, C. (1993), "Kurt Lewin and the origins of action research", *Educational Action Research*, Vol. 1, No. 1, pp. 7-24.

Boyce, G., Williams, S., Kelly, A. and Yee, H. (2001), "Fostering deep and elaborative learning and generic (soft) skill development: The strategic use of case studies in accounting education", *Accounting Education*, Vol. 10 No. 1, pp. 37-60.

Cropsey, G and Peters, A. (1982), *Accounting Series for the Wine Industry: Financial Planning and Preparation for a New Winery*. DeLuna Press, San Francisco, CA

Dal Poggetto, J., (1985), *A Practical Guide to Winery Cost Accounting*, Touche Ross, Santa Rosa, CA

Hall, L. and Paris, R. (2001), *Wines of the Pacific Northwest: A Contemporary Guide to the Wines, Regions and Producers*. Mitchell Beazley, Octopus Publishing Group, London, UK: James, E., Slater, T., and Bucknam, A. (2012), *Action Research for Business, Nonprofit, and Public Administration: A Tool for Complex Times*. Sage, Thousand Oaks, CA.

Mettetal, G. (2001), "The what, why and how of classroom action research", *The Journal of Scholarship of Teaching and Learning*, Vol. 2 No. 1, pp. 6-13.

Oregon Wine (2015), "Authentic wines honestly made", available at: <http://oregonwine.org/discover-oregon-wine/wine/> (accessed 1 August 2015).

Reason, P. and McArdle, K. (2007), "Action research and organization development", In T. Cummings (Ed.) *Handbook of Organization Development*. Sage: Thousand Oaks, CA.

Scott, L. and Swain, E., (1997) *Wine Industry Conference: Tax Update*, California Certified Public Accountants Education Foundation, Redwood City, CA

Wagner, S., Flatt, S., Byers, K. and Prow, J. (2013, June), "The Oregon wine story: A mixed- method study of regional reputation", paper presented at The International Conference of the Academy of Wine Business Research, Ontario, Canada, available at: [http://academyofwinebusiness.com/?page\\_id=696](http://academyofwinebusiness.com/?page_id=696) (accessed 1 August 2015).

Zalan, T. and Lewis, G. (2014, June), “Wine business education in a networked world”, paper presented at The International Conference of the Academy of Wine Business Research, Geisenheim, Germany, available at: [http://academyofwinebusiness.com/wp-content/uploads/2014/07/EDU03\\_Zalan\\_Tatiana.pdf](http://academyofwinebusiness.com/wp-content/uploads/2014/07/EDU03_Zalan_Tatiana.pdf) (accessed 1 August 2015).