

An Empirical Test of a Model of Export Performance for US Wineries
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Wine is produced commercially in over 60 countries. While each wine producing country's domestic market consumes much of the wine they produce, 23% (by volume) is exported to international markets. The leading wine producers include the 'old world' wineries in France, Italy and Spain. These three countries are also the leading exporters. 'New world' producers, such as the US, Australia, Chile, Argentina and South Africa have been making both production and export inroads globally over the past few decades.

The US domestic wine market has grown from a retail value of \$12.2 billion in 1995 to \$18.2 billion in 1999. US wine exports have grown consistently from a base of \$137 million in 1990 to \$548 million in 1999 (Wine Institute 2000). While this export growth is impressive, US wineries also face increasing threats to their domestic market share due to globalization in the wine industry.

Until a few years ago the US wine market was largely a domestic industry, with some imports from France, Italy and Spain competing with US wineries. Recently, however, imports have risen to 20% of the US market. This has been fueled by the tremendous inroads made by Australian, Argentinean and Chilean wines, in particular, into the US market. For example, during 1995-1999, Argentina increased the value of their exports to the US by 243% and Chile by 152% (Wine Institute 2000). Since 1995, the unfavorable balance of trade for wine in the US has increased by 78% (Wine Institute 2000).

The US has only 4.2% (by volume) of the world export wine market, while producing 8% (by volume) of the wine produced in the world (Wine Institute 2000). Furthermore, the US wine industry exports only 13% of the wine it produces, while other countries have more intensely developed their export markets. For example, France, Italy and Spain all export more than 25% of the wine they produce, Australia exports over 40% and Chile over 80% of their production (Doering 1999). One might argue that these countries export more intensively because of the small size of their domestic market. While this may be true, US wineries run the risk of losing market share at home to those exporters who have been making inroads into the US market. A continued focus on the domestic market may place the US wine industry at a long-term disadvantage in developing the requisite skills for competing in the increasingly competitive global market place.

Tariffs and trade barriers currently play a pivotal role in obstructing US wineries' access to various country markets. As these barriers are reduced under the auspices of the World Trade Organization, greater export opportunities will open up. US wineries must be positioned competitively to exploit these new opportunities. Thus, for offensive and defensive reasons, it is timely and relevant to undertake a study of US wineries' export performance, identify key success factors affecting export performance, and study their interrelationships to draw implications for global competitive strategy and management.

In this study, we first review the existing literature to develop our conceptual framework and hypotheses regarding the export performance of US wineries. We then discuss the methodology of the current study, and present the results. Finally, we derive implications

from our study on what the management of US wineries should do to improve their export performance in the current global environment.

Conceptual Framework

The conceptual framework for this study, grounded in organizational theory and the export literature, posits that export performance is the result of two sets of factors, internal to the firm and external to the firm (Cavusgil and Zou 1994). Internal to the firm are variables such as export commitment, management priority to exports, and perceptions of export barriers (Kirpalani and MacIntosh 1980; Cavusgil 1984; Axinn, Noordewier and Sinkula 1996). From the marketing literature, a critical resource for export performance, external to the firm, is its relationship with an intermediary in the export market. These may either be wholesalers who take title to the goods or agents who facilitate exports without taking title to the goods. Variables such as trust and communication with the intermediary result in better intermediary performance, which, in turn, impacts export performance (Bello and Gilliland 1997).

We build a multi-stage model of export performance based on the internal and external factors discussed above. Along the internal branch of the model, perceptions of Export Barriers, are hypothesized to be related to Management Priority for Exports, which is related to Export Commitment. Along the external branch of the model, Trust is related to Communication Quality, which is related to Intermediary Performance. Export Commitment (internal) and Intermediary Effectiveness (external), are both hypothesized to be directly related to Export Performance.

Methodology

An annual directory of US wineries (Wines & Vines 1999 Directory and Buyers Guide 1998) was used to generate our sampling frame. Based on field interviews with winery and industry association executives, and a review of the relevant literature, we designed, developed and pre-tested two survey questionnaires, one version for exporters and another one for non-exporters. In March of 1999 both surveys were mailed to all 1012 wineries with a cover letter explaining that they should complete the exporter's version if they had exported in the last three years.

Thirty-four surveys were returned as undeliverable, resulting in a reduced sampling frame of 978 wineries. The number of usable returned surveys was 236, representing 103 non-exporters and 133 exporters. Overall this represents a 24% response rate. The results presented in this study relate only to the 133 exporters.

We use the three-dimensional Export Performance Scale (EXPERF) by Zou, Taylor and Ostland (1998) to measure the performance of a company's export program rather than the performance in any specific product-market. The three dimensions of the EXPERF scale are financial export performance, strategic export performance and satisfaction with export program.

Convergent and Discriminant validity were assessed using a Structural Equations Measurement Model of 6 independent latent constructs measured by 25 items. The Measurement Model had an average absolute standardized residual of 0.04 and a

Comparative Fit Index of 0.94 in EQS. A second order Confirmatory Factor Analysis of the 9 items constituting the Export Performance (EXPERF) scale also had a good fit with the data (average absolute standardized residual of 0.05 and Comparative Fit Index of 0.93). Thus, we could take the average of the 9 items as our measure of Export Performance. The actual model was tested using a multi-stage structural equations system with 7 latent constructs measured by 26 items. This model has an average absolute standardized residual of 0.07 and a Comparative Fit Index of 0.92.

Results

As hypothesized,, along the internal branch of our tested model, we found significant positive relationships between perceptions of business barriers, management priority to exports, and export commitment, in that order. Along the external branch of the model, we found significant positive relationships between trust, communication quality, and intermediary performance, in that order. Finally, both export commitment and intermediary performance had strong positive relationships with export performance. Further, the external branch seemed to have a stronger impact on export performance than the internal branch. Further details on results and implications for US wineries will be discussed in the presentation at the conference.

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