

## Vienna 2019 Abstract Submission

### Title

Rhode Island and Connecticut Wineries Business Strategy, Performance, and Management Capabilities: a Survey of Managerial Practices

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### Keywords

Wine, Competitive Advantage, Business Strategies, Management Capabilities, Performance, Tourism

### Research Question

What are the preeminent factors for wineries in Connecticut and Rhode Island to acquire their competitive advantage?

### Methods

To address the research question, a survey was conducted of wineries in the states of Rhode Island and Connecticut.

### Results

Management capabilities they own are more important than the strategies they follow in their pursue and achievement of a competitive advantage.

### Abstract

Wine and its elaboration present elements that make it especially interesting; it is not only a product, it is a way of understanding life for both, those who produce it and those who consume it. For producers, wine contributes elements of conspicuous production (Overton and Banks, 2015) and for consumers, wine is linked to moments of enjoyment of quality of life, which can be expressed both at home and in a restaurant, or by enjoying a wine tourism activity.

In newer wine producing regions the wine industry focuses on this dual objective, on the one hand allowing the cultivation of the vineyard and wine making practices, while in the other developing a wine tourism business through the contact of producers and consumers in a natural environment (Villanueva and Moscovici, 2016).

One of the areas in which there has been a development of these characteristics is in the northeast of the United

States, specifically in the states of Connecticut and Rhode Island. In these two states there are registered only 47 wineries, and the US Alcohol and Tobacco Tax and Trade Bureau (within the US Department of Treasury) has defined two American Viticultural Areas: the South-Eastern New England AVA (parts of Connecticut, Rhode Island and Massachusetts) and the Western Connecticut Highlands AVA (Villanueva and Moscovici, 2016).

These wineries are usually small companies, which make a large part of their sales directly to the consumer after an action of attracting the customer to the winery. The winery constitutes a place of tourist visit, which has festive nuances, of celebration of a family, social event or a place to meet with neighbors or friends. The wineries hold concerts, yoga days, sporting or cultural events, a tasting or meal is included where the purchase of wine is encouraged through offers, a customer's club or a loyalty program. With this same objective the wineries, or some of them, have opening hours adapted to weekends, holidays or seasons of special tourism activity. In the case of Connecticut and Rhode Island, the proximity to two important population centers, such as New York and Boston, facilitates the development of this wine tourism phenomenon (Villanueva and Moscovici, 2016).

This double conception of the wine business, the binomial of the wine as a consumer product and its tourism associated with the wineries, which in this area has a major component, has been developed around the world with different intensity. In settled wine-growing areas in the United States such as California or Oregon, or in Europe such as France, Italy, or Spain, wineries promote their tourism component; they prepare visits, gastronomic routes and other events, aware of the importance of bringing the customer closer to the winery to encourage purchase, but also as an element that transforms wine consumption into a unique and playful experience, a circumstance that makes the consumer loyal.

It is then of great interest to do a study of competitiveness to describe and analyze the competitive advantages of the wineries of Connecticut and Rhode Island. This should highlight key elements of their strategic intent and make it a case to a large part of wineries that seek to combine wine and tourism.

The study of the competitive advantage of companies is based on their capacity to create greater value than their competitors (Branderburguer, 1996; Besanko, 2009). The way the company achieves this competitive advantage has basically two schools of thought. The first is based on the strategic position that the company adopts in the market (Porter, 1980), the second in the resources and capabilities that the company has and that differentiate it from its competitors by providing it with advantages when competing and appropriating of the rents of its prevailing position (Wernerfelt, 1984; Barney, 1991). These two approaches, one that seeks competitiveness outside the company or in the sector of business and another that does the search of competitiveness in the interior of the company and in its provision of resources, are not two incompatible approaches (Spanos and Lioukas, 2001), and numerous studies have shown that the joint analysis facilitates a better understanding of how competitive advantage is produced and achieved (Rivard et al., 2006; Rapp et al., 2010; Takata, 2016; Rosenberg and Ferlie, 2016; Chuang and Lin, 2017; Ferrer et al., 2018a).

In determining the preeminent factors for wineries in Connecticut and Rhode Island to acquire their competitive advantage this article follows this double approach, the Theory of Competitive Advantage (Porter, 1980) and the Theory of Resources and Capabilities or Resource Based Theory (Barney, 1991). The achievement of a competitive advantage means the creation of greater value for the winery, which is reflected in better performance indicators (Amadiou and Viviani, 2010; Simon-Elorz et al., 2015). At the same time and in terms of internal resources and capabilities, their management capabilities are studied since this resource has proven to be the most important in determining the best results of the company (Teece et al., 1997; Spanos and Lioukas, 2001; Ortega, 2010).

This article comes to cover important gaps in knowledge; the role of resources and management capabilities in obtaining a competitive advantage in the wine sector in the United States has never been studied, and there are very rare cases of studies using this approach in regional or country-level wine industries analysis. Kunc (2007) performed a study on managerial practices in the Chilean small and medium wineries, Chartes et al. (2008) completed a survey on the managerial practices in the Australian wine sector SMEs, Duarte and Bressan (2016) did the same in a study in the Italian wine sector SMEs, and Ferrer et al. (2017) studied the competitive advantage differences between firms belonging to a business group and independent wineries in the Spanish wine industry, while Ferrer et al. (2018a) analyzed the competitive advantage and general performance factors found in wineries belonging to the Spanish wine industry, and Ferrer et al. (2018b) focused their study on the application of the Miles

and Snow model in wineries of the Spanish wine sector.

The article is structured as follows: section 1 presents the theoretical framework and the literature review; section 2 explains the three hypotheses: one focuses on management capabilities, and two in the firm's strategy and consequent performance indicators; section 3 shows the sample, variables and model used; section 4 reports the results; and lastly conclusions are presented along with the applicability of the results and its limitations.

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# **Rhode Island and Connecticut Wineries Business Strategy, Performance, and Management Capabilities: a Survey of Managerial Practices**

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## **Abstract**

The world wine sector has greatly changed in recent years, increasing the volume produced and traded, but also its competitiveness. In this new environment, many small businesses joined the industry, developing their activity in geographical regions with less wine tradition. These new wineries in less traditional wine regions have broadened the concept of the industry by linking it with tourism; perhaps with more strength than in other more traditional areas, where this change in the business model has also occurred. To know what are the factors that give a greater competitiveness to this new typology of wineries, this article has surveyed the wineries of the states of Connecticut and Rhode Island, in the northeast of the US, a new wine region in the world. Through a questionnaire, the strategies these wineries follow and their relationship with their performance, and their relevant management capabilities have been analyzed. The conclusions show how the management capabilities they own are more important than the strategies they follow in their pursue and obtention of a competitive advantage; and that it is the strategy of differentiation that facilitates a greater competitiveness. These managerial skills together with their conception of a services business, where the tourism aspect plays a fundamental role, seem evident when defining the resources and capabilities that generate their sustainable performance.

**Key Words: Wine, Competitive Advantage, Business Strategies, Management Capabilities, Performance, Tourism**

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## **Introduction**

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## **1. Theoretical Framework and Literature Review**

The theoretical analysis of the factors that determine the competitive advantage of wineries in Connecticut and Rhode Island is developed following the aforementioned theories: the Theory of Competitive Advantage (Porter, 1980) and the Theory of Resources and Capabilities or Resource Based Theory (Barney, 1991).

Porter (1980) argues that the company that can obtain a competitive advantage is one that is able to find a position within the sector by developing a strategy that allows it to defend of their competitors. To determine this position, the company must perform the strategic planning process. There are only two main generic strategies, benefit leadership or cost leadership: benefit leadership implies that the company's products can be sell with a price premium relative to competitors, and cost leadership is when the company's products can be produced at lower cost per unit than competitors (Besanko, 2009). The focus on one of them in a certain segment draws the third option, cost or differentiation in the whole market or in a segment. The company must flee from the "stuck in the middle" intermediate positions that inevitably move it away from obtaining a competitive advantage (Porter, 1980 and 1985).

The Theory of Resources and Capabilities or Resource Based View (RBV) focuses on the resources and capabilities available to the company as a key to achieving competitive advantage (Barney, 1991). Resources are all available factors that the company controls, and which become final products or services using a wide range of other assets and mechanisms available to the company. Capabilities emerge as the elements that make possible the use of resources through organizational processes. Capabilities are developed over time based on complex interactions between the resources available to the company (Amit and Schoemaker, 1993).

The resources and capabilities available to the company are not in themselves a strategic and fundamental element that ensures the achievement of competitive advantage. Three conditions must be fulfilled to obtain it: establishing and maintaining the competitive advantage and appropriating the benefits that arise from it. Resources must be scarce and relevant to satisfy these three conditions, and they must be durable, nontransferable, and not replicable (Grant, 2010).

## **2. Hypotheses**

### *Competitive Strategy and Business Performance*

The strategies that the company adopts, and following the Theory of Competitive Advantage (Porter, 1980), are leadership in costs or differentiation, or some of the previous two but focused in a segment of the market. The analysis of the strategic activities of the company contemplates the whole series of competitive decisions that the company adopts in the search for competitive advantage and that shapes its strategy (Ortega, 2010; Barney, 2011). To study the competitive advantages of the Connecticut and Rhode Island wineries the strategies adopted by the company are analyzed through the methodology of Robinson and Pearce (1988), analyzing their orientation towards cost leadership or differentiation (Dess and Davis, 1984).

In the effort to achieve survival and success, the company is projected outwardly defining its strategy, which products to offer, and in what market (Ansoff, 1965). The vision, mission and values of the company determine their objectives which will involve the definition of their place in the market (Brenes et al., 2014).

Although there has been extensive research written about strategy in terms of business, Porter's perspective (1980 and 1985) continues to be the one that receives the greatest consensus in articles, textbooks (Campbell, 2000) and empirical studies (Campbell, 2000; Spanos and Lioukas, 2001; Camisón, 2004; Ortega, 2010; Brenes et al., 2014). Porter conceives the determination of the strategy as the analysis of the competitive behavior, and the choice between two generic strategies, leadership in cost or differentiation and the third as the projection of any of the two on a certain segment. The scheme leads to an increase in the value created by the company either by increasing the perceived profit or by reducing production costs and thus improving its competitiveness (Besanko, 2009).

This article analyzes the different types of strategies for wine companies: (leadership in) cost and differentiation. According to this, the following first (A) and second (B) hypotheses are formulated:

*Hypothesis A:*

*The wineries tending towards a cost leadership strategy will have a better performance.*

*Hypothesis B:*

*The wineries tending towards a differentiation strategy will have a better performance.*

*Management Capabilities*

The establishment of the following third hypotheses is done with the objective of confirming that the Theory of Resources and Capabilities or Resource Based View (RBV) (Barney, 1991), together with the Theory of Competitive Advantage (Porter, 1980), jointly explain the competitive advantage achieved by wineries in the states of Connecticut and Rhode Island, and ultimately the performance of these companies (Spanos and Lioukas, 2001; Ortega, 2010).

The analysis of resources and capabilities will focus on management capabilities, because of the importance they have in the company's results; it is the way in which the manager projects his strategy and his objectives to the rest of the organization. As Teece et al. (1997) mentioned "in short, strategic, organizational, and human resource decisions made by management lie at the heart of enterprise performance".

Management and organizational capabilities are developed at the top of the organizational chart through three functions: coordination and integration, learning, and reconfiguration (Teece et al., 1997). These capabilities are part of the routines learned and may differentiate a company, explaining why some of them present a more efficient management than others, and may become a source of competitive advantage (Teece et al., 1997).

The importance of managerial skills is based on the manager's vision and leadership (Pickett, 1998), integrating this with the strategy (Westley and Mintzberg, 1989). The management competencies include the definition of the strategy and the organizational structure at the level of design and implementation. Managers must provide a high degree of commitment, clear definition of objectives and financial resources (Pickett, 1998), and guide employees towards the shaping of business resources and competencies (Kor and Mesko, 2013).

Management resources reflect the capabilities of managers and are precursors to competitive advantage and revenue. The managerial skills are not easily exportable to other companies. Therefore, the hiring of external managers does not always have a positive effect. It is through human capital that the manager generates income by implementing the strategy and making operational decisions (Castanias and Helfat, 2001; Helfat and Martin, 2015).

Managers use their management capacity to guide the company towards cost reduction, product differentiation or a combination of both, looking for competitive advantage. Their responsibility and management include strategic business vision, internal communication, strategic management of human resources (recruitment, job analysis, development, training, performance and compensation), the acquisition of resources and their transformation into products and services. Through these managerial steps, they create value for the partners and owners of the company, thus being a generator of revenues and their appropriation, and a key element for the maintenance of the competitive advantage (Lado and Wilson, 1994).

The analysis of management capabilities and their connection with strategy and performance has been analyzed finding a positive relation (Spanos and Lioukas, 2001; Ortega, 2010; Welter et al., 2013), and that relates to the establishment of the third (C) hypothesis:

*Hypothesis C:*

*In Connecticut and Rhode Island wineries,  
the management capabilities owned by the firm  
are positively related to the firm's performance.*

### **3. Sample, Variables, and Model**

To address the research hypotheses, and a gap in data for these two states, a survey was conducted of wineries in the states of Rhode Island and Connecticut using lists from each department of agriculture's winery websites as our survey universe. The states of Rhode Island and Connecticut listed 11 wineries and 36 wineries respectively (RI Department of Agriculture, 2018; CT Department of Agriculture, 2018).

All 47 wineries were contacted by e-mail introducing the project and asking them to send their responses to the digital survey. Initial contacts were followed-up with a personal visit, e-mails and phone calls to request participation for the survey. The process extended for 4 months, from July to October 2018. The final response included 3 wineries for the State of RI, a 27% response rate, and 12 wineries for the State of

CT, a 33% response rate. This corresponds to an 32% response between the two states, a high and representative value, and over the 14% as the order of magnitude reported by Baruch and Holtom (2008) for industrial sectors.

The analysis of the competitive advantage, its business strategy intent and the performance associated, and management capabilities of the Connecticut and Rhode Island wineries was conducted using questions and scales that had been used and validated in previous studies (Spanos and Lioukas, 2001; Ortega 2010; Ferrer et al., 2018a).

The digital survey covers a series of questions in these three content areas: business strategy, performance, and management capabilities. The scale in which the business strategy is captured consists of a Likert scale with five levels; RI and CT wineries evaluate themselves with respect to different business development efforts where 1 is "not utilized" and 5 is "primary, constantly utilized". There are 22 competitive methods that Robinson and Pearce (1988) enumerate (see Table 1 below) and that were asked to every one of the CT and RI interviewed; the wineries used the mentioned Likert scale to give their answers respective to their strategic intent regarding these competitive methods.

**Table 1. Robinson and Pearce (1988) Twenty-Two Competitive Methods**

- 1) *Pricing below competitors,*
- 2) *New product development,*
- 3) *Broad product range,*
- 4) *Customer service,*
- 5) *Specific efforts to ensure a pool of highly trained experienced personnel,*
- 6) *Extremely strict quality control procedures,*
- 7) *Emphasis on improving cost per unit,*
- 8) *Maintaining high inventory levels (disregarding the derivative of aging the product),*
- 9) *Narrow, limited range of products,*
- 10) *Brand identification,*
- 11) *Developing and refining existing products,*
- 12) *Strong influence over distribution channels,*
- 13) *Major efforts to ensure availability of raw materials,*
- 14) *Increased investment in process efficiency-oriented R&D,*
- 15) *Only serving specific geographic markets,*
- 16) *Above average advertising, publicity and/or communication expenditures,*
- 17) *Emphasis on the manufacturing of speciality products,*
- 18) *Reputation building efforts within industry,*
- 19) *Innovation in manufacturing processes,*
- 20) *Products in higher priced market segments,*
- 21) *Products in lower priced market segments, and*
- 22) *Innovation in marketing techniques and methods.*

These 22 questions capture the business strategies used (Dess and Davis, 1980; Robinson and Pearce, 1988) and allows to know what the competitive options for these RI and CT wineries are: costs or differentiation. The company also projects through these competitive methods one of the generic strategies of the four main strategies defined by Robinson and Pearce (1988): efficiency, service / high price, innovation and development, and marketing. The analysis of the strategies of Robinson and Pearce adds more information, detail and clarification of how Porter's generic strategies are developed in the company (Spanos and Lioukas, 2001; Camisón et al., 2007; Ortega, 2010; Ferrer et al., 2018a; among others).

Following Spanos and Lioukas (2001) and Ortega (2010), business performance has been evaluated along eight dimensions (see Table 2), grouped in two major areas of interest (market position and profitability in the last three years). RI and CT wineries evaluate their position with respect to the competition using a Likert scale with five levels, where 1 is "much weaker than the competition " and 5 "is much stronger than the competition".

**Table 2. Spanos and Lioukas (2001) and Ortega (2010) Eight Business Dimensions**

- 1) *Market position. Sales volumen in dollars,*
- 2) *Market position. Growth in sales volume in dollars,*
- 3) *Market position. Market share in %,*
- 4) *Market position. Growth in market share in %,*
- 5) *Market position. Number of the visitors to the winery in comparison,*
- 6) *Profitability. Profit margin in comparison,*
- 7) *Profitability. Return on own capital in comparison, and*
- 8) *Profitability. Net profits in comparison.*

Regarding management capabilities, RI and CT wineries evaluate their position with respect to their competition in seven capabilities (see Table 3) and using a 5-point Likert scale, where 1 is "much weaker than the competition " and 5 "is much stronger than the competition".

**Table 3. Seven Management Capabilities**

- 1) *Managerial competencies,*
- 2) *Knowledge and skills of employees,*
- 3) *Work climate,*
- 4) *Efficient organizational structure,*
- 5) *Coordination,*
- 6) *Strategic planning, and*
- 7) *Ability to attract creative employees.*

The model developed can test the three hypotheses, whether generic strategies, cost or differentiation, and/or management capabilities explain CT and RI wineries' business performance.

The proposed model of analysis is as follows:

$$Y_j = \beta_0 + \beta_1 S + \beta_2 MC_j + e_i$$

Where,  $Y_j$  is the performance value for the company "j";  $\beta_0$  is the constant;  $\beta_1$ , the coefficient of the company strategy;  $\beta_2$ , is the coefficient of management capability; and  $e_j$  is the error or the residual of the proposed model.

The dependent variable is Business Performance. To avoid collinearity and being able to work with one variable, a factor analysis has been carried out, extracting a component that determines how each company conceives its performance. The extracted factor explains 62.72% of the variance, with a KMO = 0.731, and Cronbach's alpha = 0.914, as Table 4 illustrates.

**Table 4. Factor Analysis: Business Performance**

Variables	Alpha without item	Component	Communality
Sales volume, in dollars	.886	.932	.878
Growth in market share, over sales in	.901	.822	.913
Return on own capital	.900	.792	.962
Growth in sales volume, in dollars	.904	.787	.699
Profit margin	.902	.779	.819
Number of visitors to the winery	.905	.770	.599
Market share, % over sales in dollars	.909	.737	.894
Net profits	.910	.696	.803
Barlett Test:	$\chi^2$	gl	sig
	77.462	28	0.000

Cost and Differentiation strategies, and Management Capabilities have been set as independent variables.

Cost leadership strategy is the strategy that is followed by the wineries that answered the "products in lower priced market segments" question with a considerable emphasis or major, constant emphasis. Differentiation strategy or Benefit leadership is the strategy which is followed by the wineries that answered the question about "products in higher priced market segments" with considerable emphasis or a major, constant emphasis.

Regarding Management Capabilities, a factor analysis has been carried out extracting a component that determines how each company perceives its performance. The extracted factor explains 63.61% of the variance, with a KMO = 0.625, and Cronbach's alpha = 0.902, as Table 5 illustrates.

**Table 5. Factor Analysis: Management Capabilities**

Variables	Alpha without item	Component	Commuality
Strategic planning	.877	.854	.730
Managerial competencies	.885	.826	.683
Efficient organisational structure	.882	.824	.680
Coordination	.888	.802	.644
Knowledge and skills of employees	.889	.780	.608
Work climate	.892	.760	.577
Ability to attract creative employees	.895	.729	.532
Barlett Test:	$\chi^2$	gl	sig
	69.803	21	0.000

#### 4. Results

The process of analysis of the proposed hypotheses is carried out in two phases; first, a linear regression is performed for the two types of generic Porter Strategies (Low-Cost and Differentiation) and the Management Capabilities. Subsequently and following the Strategies defined by Robinson and Pearce (1988) (see Table 6), a Mann-Whitney U Test is performed defining which of these Strategies are associated to the best performance, defining two independent samples, wineries that perform better than their competitors (Sample A), and wineries that do not perform better than their competitors (Sample B). Through another non-parametric Mann-Whitney U Test, the characteristics of the Management Capabilities is determined by defining the same two independent samples, wineries that perform better than their competitors (Sample A), and wineries that do not perform better than their competitors (Sample B).

**Table 6. Robinson and Pearce (1988) Strategies Pattern of Classification**

Pattern Classification	Competitive methods associated with each pattern of strategic behavior. Questions of the scale.	Comments and interpretation
Efficiency	Seek to insure trained personnel	Each competitive method is consistent with an effort to ensure efficient, cost-effective operations
	Pursue strict quality control	
	Emphasize lowest cost per unit	
	Push innovation in manufacturing processes	
	Innovation in marketing techniques	
Service	No concern for pricing below competitors (negative load)	Consistent concern with extensive service to customers in higher-priced markets with the development of an industry reputation
	Extensive customer service	
	Build reputation in industry	
	Serve high-priced market segments	

	Avoid low-priced market segments (negative load)	
Product innovation and development	New product development	Seeks to emphasize specialized products and new developments or refinements based in part on process R&D
	Develop and refine existing products	
	Emphasize especiality products	
	Process-oriented R&D	
Brand /channel influence (Marketing)	Build brand identification	Focus on brand recognition and strong influence over channels through efforts like product development and new marketing techniques
	Influence channels of distribution	
	New product development	
	Innovation in marketing techniques	

The analysis was run with the SPSSv20. The results of the regression for the two models are shown in Table 7 (below). The adjusted  $R^2$  has a value of 0.644 in the first model and 0.507 in the second. Thus, the model infers that the Management Capabilities have greater impact on Business Performance than Strategies and only the Differentiation Strategy (Benefit Leadership) has an impact in the Business Performance, with a higher value than 0.05 (0.075). The Low-Price Strategy cannot be related to the winery's performance. Thus, this is the confirmation of *Hypotheses B* ("The wineries tending towards a differentiation strategy will have a better performance") and *C* ("In Connecticut and Rhode Island wineries, the management capabilities owned by the firm are positively related to the firm's performance"), and the rejection of *Hypothesis A*.

**Table 7. Regression Analysis**

Variables	Differentiation Model				Low-Cost Model			
	$\beta$	t	sig	sd	$\beta$	t	sig	sd
Differentiation Strategy	.387	1.988	.075	.201				
Low-Cost Strategy					-0.068	-0.301	.769	.813
Managerial Capabilities	.616	3.164	.010	.218	.697	3.091	.011	.233
$R^2$		0.802				0.712		
Adjusted $R^2$		0.644				0.507		
Collinearity FIV		1.062				1.032		
Collinearity Condition Index		1.980				1.414		

In table 8 (below), Mann-Whitney U Test results for the four types of Robinson and Pearce strategies are presented, and for the two defined samples, wineries that perform better than their competitors (Sample A), and wineries that do not perform better than their competitors (Sample B).

**Table 8. U Mann-Whitney U Test for Robinson and Pearce Strategies**

Variables	Mean Rank		Sig Asymptotic
	Sample A	Sample B	
Efficiency Strategy	9.25	7.55	0.510
Service Strategy	11.88	6.59	0.039
Product Innovation Strategy	10.62	7.05	0.160
Marketing Strategy	10.62	7.05	0.165

Table 8 shows how the Service Strategy is highly related to the better performance of the wineries, with a significance below 0.05 (0.039 sig asymptotic). However, it is also observed that the Product Innovation Strategy and Marketing Strategy have a certain degree of impact to the performance of CT and RI wineries, although it is not statistically significant (value greater than 0.1).

To determine which management capabilities are related to a better performance of CT and RI wineries, the Mann-Whitney U Test is done for the independent samples, wineries that perform better than their competitors (Sample A), and wineries that do not perform better than their competitors (Sample B). The Mann-Whitney U Test reflects which management capabilities characterize the wineries with better performance (see table 9 below). The following management capabilities have resulted key elements in their better performance and present values with a high level of statistical significance: efficient organizational structure (value is lower than 0.05: 0.011 sig asymptotic), medium level of statistical significance: ability to attract creative employees (value is lower than 0.10: 0.067 sig asymptotic) and coordination (value is lower than 0.10: 0.074 sig asymptotic). These three management capabilities (efficient organizational structure, ability to attract creative employees, and coordination) are the performance drivers of the wineries of RI and CT.

**Table 9. Mann-Whitney U Test for Management Capabilities**

Variables	Mean Rank		Sig Asymptotic
	Sample A	Sample B	
Strategic planning	8.29	5.50	0.172
Managerial competencies	7.86	6.00	0.335
Efficient organizational structure	9.36	4.25	0.011
Coordination	8.64	5.08	0.074
Knowledge and skills of employees	7.57	6.33	0.512
Work climate	8.07	5.75	0.249
Ability to attract creative employees	8.71	5.00	0.067

## **Conclusion**

This article analyzes the factors that explain the competitive advantage of companies in an industry where two business objectives, the development of a food product and the creation of a service contribute to generate loyalty to their customers. The article examines wineries in the states of Connecticut and Rhode Island, in the northeastern US, a New World area of the development of the wine industry. The small wineries present in these states develop a double model of wine and tourism, favored by their proximity to big cities like New York and Boston (Villanueva and Moscovici, 2016).

The article assumes that the competitive advantage is reached by those companies that have a better performance than their competitors (Amadiou and Viviani, 2010; Simon-Elorz et al., 2015) and that this competitive advantage may be found following the analysis of two theories, the Theory of the Competitive Advantage of Porter (1980) and the Theory of Resources and Capabilities of Barney (1991). The article also assumes that these theories are not two opposed options but that both together better explain business excellence (Rivard et al., 2006; Rapp et al. al., 2010; Takata, 2016; Rosenberg and Ferlie, 2016; Chuang and Lin, 2017; Ferrer et al., 2018a).

In terms of business strategy, the model by Robinson and Pearce (1988) has been used; the analysis of business behaviors is done through 22 competitive methods that assess the orientation of the company towards the two generic strategies of Porter (1980), leadership in differentiation and leadership in costs. At the same time the model defines the existence of four derived strategies linked with the previous two: efficiency, service, innovation, and marketing (Robinson and Pearce, 1988).

To study the resources and managerial skills the article focuses on management capabilities, due to the importance they have in the management of wineries (Kunc, 2007; Charles et al., 2008; Duarte and Bresnan, 2016; Ferrer et al., 2018a). The article uses seven management capabilities evaluated in previous studies (Spanos and Lioukas, 2001; Ortega, 2010; Ferrer et al., 2018a): strategic planning, managerial competencies, efficient organizational structure, coordination, knowledge and skills of employees, work climate, and ability to attract creative employees.

To capture the reality of the environment in which the wineries of CT and RI compete, and their business strategies, performance associated, management capabilities and then the determination of their competitive advantage, a survey directed to all the wineries was designed, and a third of these wineries responded.

The article reaffirms the existence of the synergistic effect between strategies and resources and capabilities in the explanation of the competitive advantage. The results show that management capabilities are more important than the strategic intent in the explanation of performance, and that only the strategy of differentiation is linked to better business performance. The fact that the differentiation strategy is the one linked to performance has already been highlighted by D'Aveni et al. (2010) and Brenes et al. (2014) who defend the existence of a single business success strategy in sectors with high competitiveness, such as the wine sector. Among the different strategies linked and cited by Robinson and Pearce (1988), the service strategy stands out, with the greatest statistical significance. These small wineries draw attention through

differentiation policies very linked to the development of the product-tourism service strategy. This certainly characterizes the wine sector in CT and RI where wineries base their offering on a unique experience connected to the tasting experience and the rustic territory, more than in a differentiation strategy based in wine branding or varietal wines (Kunc, 2007; Villanueva and Moscovici, 2016).

The article shows that a better performance may be achieved with a strategy of differentiation based on a coordinated, creative, and touristic-oriented service; this results to be a fundamental element in the strategic design of wineries in small and less traditional wine regions. In the development of this strategy it is even more important than the strategy itself the role played by the management of the entrepreneur's own abilities to lead the company, defining what aspects should be promoted, such as defining an organizational structure and being able to attract creative employees. The article presents some limitations, the most important being the size of the sample; even though an important percentage of the CT and RI wineries replied to the survey, definitive conclusions are difficult to be drawn. In addition, the use of subjective scales in the definition of performance is another element that may limit the article conclusions. However, these scales have been used in various studies that demonstrated their convergence with objective scales (Wall et al., 2004; Sirmon et al., 2010), they were used in numerous empirical studies (Spanos and Lioukas, 2001; Ortega, 2010; Camisón and Villar-López, 2014; Prajogo, 2016; Ferrer et al., 2018a). The article, at the same time, opens the door to analyze the competitiveness of other wineries in other US states, and to make a map of the competitiveness of the wine sector in a wine country of the importance of the US.

## References

- Amadiou, P. & Viviani, J. L. (2010). Intangible effort and performance: the case of the French wine industry. *Agribusiness*, 26(2), 280-306.
- Amit, R., & Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic management journal*, 14(1), 33-46.
- Ansoff, H. Igor. *Corporate strategy: business policy for growth and expansion*. McGraw-Hill Book, 1965.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Barney, J. B., Ketchen, D. J., & Wright, M. (2011). The future of resource-based theory revitalization or decline? *Journal of management*, 37(5), 1299-1315.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139-1160.
- Besanko, D., Dranove, D., Shanley, M., & Schaefer, S. (2009). *Economics of strategy*. John Wiley & Sons.
- Brandenburger, A. M., & Stuart, H. W. (1996). Value-based business strategy. *Journal of Economics & Management Strategy*, 5(1), 5-24.
- Brenes, E. R., Montoya, D., & Ciravegna, L. (2014). Differentiation strategies in emerging markets: The case of Latin American agribusinesses. *Journal of Business Research*, 67(5), 847-855.
- Camisón, C. (2004). Shared, competitive, and comparative advantages: a competence-based view of industrial-district competitiveness. *Environment and Planning A*, 36(12), 2227-2256.
- Camisón, C., Simón, F. G., & Marqués, D. P. (2007). Estrategias competitivas y desempeño empresarial: estudio comparativo de los modelos de Robinson & Pearce y Miles & Snow en el sector hotelero español. *Investigaciones Europeas de dirección y economía de la empresa*, 13(3), 161-182.
- Camisón, C. & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*, 67(1), 2891-2902.
- Campbell-Hunt, C. (2000). What have we learned about generic competitive strategy? A meta-analysis. *Strategic Management Journal*, 21(2), 127-154.
- Castanias, R. P., & Helfat, C. E. (2001). The managerial rents model: Theory and empirical analysis. *Journal of Management*, 27(6), 661-678.
- Charters, S., Clark-Murphy, M., Davis, N., Brown, A., & Walker, E. (2008). An exploration of managerial expertise in the Western Australian wine industry. *International Journal of Wine Business Research*, 20(2), 138-152.
- Chuang, S. H., & Lin, H. N. (2017). Performance implications of information-value offering in e-service systems: Examining the resource-based perspective and innovation strategy. *The Journal of Strategic Information Systems*, 26(1), 22-38.
- D'Aveni, R. A., Dagnino, G. B., & Smith, K. G. (2010). The age of temporary advantage. *Strategic Management Journal*, 31(13), 1371-1385.
- Dess, G. G., & Davis, P. S. (1984). Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance. *Academy of Management journal*, 27(3), 467-488.
- Duarte Alonso, Abel, and Alessandro Bressan (2016). "A resource-based view of the firm and micro and small Italian wine firms." *International Journal of Wine Business Research* 28.4, pp. 349-368.

- Ferrer-Lorenzo, Juan Ramón, Silvia Abella-Garcés, and Teresa Maza-Rubio (2017). "Competitive advantage differences between firms belonging to a business group and independent companies in the Spanish wine industry." *Economía Agraria y Recursos Naturales-Agricultural and Resource Economics* 17.2; pp. 105-132.
- Ferrer Lorenzo, Juan Ramón, Maza Rubio, María Teresa and Abella Garcés, Silvia. (2018a) "The competitive advantage in business, capabilities and strategy. What general performance factors are found in the Spanish wine industry?" *Wine Economics and Policy* (in press).
- Ferrer Lorenzo, Juan Ramón, Maza Rubio, María Teresa and Abella Garcés, Silvia. (2018b). Capacidades y estrategias de Miles y Snow en el sector del vino en España. Grupos vs. Bodegas independientes. *Revista Española de Estudios Agrosociales y Pesqueros*, n250, pp. 95-125.
- Grant, R. M. (2010). *Contemporary strategy analysis: Text and cases edition*. John Wiley & Sons.
- Helfat, C. E., & Martin, J. A. (2015). Dynamic managerial capabilities: Review and assessment of managerial impact on strategic change. *Journal of Management*, 41(5), 1281-1312.
- Kor, Y. Y., & Mesko, A. (2013). Dynamic managerial capabilities: Configuration and orchestration of top executives' capabilities and the firm's dominant logic. *Strategic Management Journal*, 34(2), 233-244.
- Kunc, Martin H. (2007). "A survey of managerial practices in the small to medium Chilean wineries." *Journal of Wine Research* 18.2, pp. 113-119.
- Lado, A. A., & Wilson, M. C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *Academy of management review*, 19(4), 699-727.
- Ortega, M. J. (2010). Competitive strategies and firm performance: Technological capabilities' moderating roles. *Journal of Business Research*, 63(12), 1273-1281.
- Overton, John, and Glenn Banks (2015). "Conspicuous production: Wine, capital and status." *Capital & Class* 39.3: 473-491.
- Pickett, L. (1998). Competencies and managerial effectiveness: Putting competencies to work. *Public Personnel Management*, 27(1), 103-115.
- Porter, M. E. (1985). *Competitive advantage: creating and sustaining superior performance*. 1985. New York: FreePress.
- Porter, M. E., & Strategy, C. (1980). *Techniques for analyzing industries and competitors*. Competitive Strategy. New York: FreePress.
- Prajogo, D. I. (2016). The strategic fit between innovation strategies and business environment in delivering business performance. *International Journal of Production Economics*, 171, 241-249.
- Rapp, A., Trainor, K. J., & Agnihotri, R. (2010). Performance implications of customer-linking capabilities: Examining the complementary role of customer orientation and CRM technology. *Journal of Business Research*, 63(11), 1229-1236.
- Rivard, S., Raymond, L., & Verreault, D. (2006). Resource-based view and competitive strategy: An integrated model of the contribution of information technology to firm performance. *The Journal of Strategic Information Systems*, 15(1), 29-50.
- Robinson, R. B., & Pearce, J. A. (1988). Planned patterns of strategic behavior and their relationship to business-unit performance. *Strategic Management Journal*, 9(1), 43-60.
- Rosenberg Hansen, J., & Ferlie, E. (2016). Applying strategic management theories in public sector organizations: Developing a Typology. *Public Management Review*, 18(1), 1-19.
- Simon-Elorz, K., Castillo-Valero, J.S. and Garcia-Cortijo, M.C. (2015). Economic Performance and the Crisis: Strategies Adopted by the Wineries of Castilla-La Mancha (Spain). *Agribusiness*. 31(1). 107-131.
- Sirmon, D. G., Hitt, M. A., Arregle, J. L., & Campbell, J. T. (2010). The dynamic interplay of capability strengths and weaknesses: investigating the bases of temporary competitive advantage. *Strategic Management Journal*, 31(13), 1386-1409.
- Spanos, Y. E., & Lioukas, S. (2001). An examination into the causal logic of rent generation: contrasting Porter's competitive strategy framework and the resource-based perspective. *Strategic management journal*, 22(10), 907-934.
- Takata, H. (2016). Effects of industry forces, market orientation, and marketing capabilities on business performance: An empirical analysis of Japanese manufacturers from 2009 to 2011. *Journal of Business Research*, 69(12), 5611-5619.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 509-533.
- Villanueva, Emiliano C., and Dan Moscovici (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.
- Wall, T. D., Michie, J., Patterson, M., Wood, S. J., Sheehan, M., Clegg, C. W., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel psychology*, 57(1), 95-118.
- Welter, C., Bosse, D. A., & Alvarez, S. A. (2013). The interaction between managerial and technological capabilities as a determinant of company performance: An empirical study of biotech firms. *International Journal of Management*, 30(1), 272.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, 5(2), 171-180.
- Westley, F., & Mintzberg, H. (1989). Visionary leadership and strategic management. *Strategic management journal*, 10(S1), 17-32.