

Co-Opetition for the Diffusion of Resistant Innovations: A  
Case Study in the Global Wine Industry

Rosanna Garcia  
Tom Atkin

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Wine Industry**

**Rosanna Garcia**  
**Asst. Professor of Marketing**  
**Northeastern University**  
**Boston, MA 02115**  
**617-373-7258**  
**[r.garcia@neu.edu](mailto:r.garcia@neu.edu)**

**Tom Atkin**  
**Asst. Professor Supply Chain Management**  
**Sonoma State University**  
**Rohnert Park, CA 94928**  
**[tom.atkin@sonoma.edu](mailto:tom.atkin@sonoma.edu)**

# **Co-opetition for the Diffusion of Resistant Innovations: A Case Study in the Global Wine Industry**

## **Abstract**

The purpose of this study is to investigate the role of cooperation among competing firms to speed the diffusion of resistant innovations. Resistant innovations have been identified as those innovations for which consumers are reluctant to adopt. In this paper, we extend the diffusion of resistant innovation theory by integrating it with studies of cooperative competition, also known as 'co-opetition', an alliance strategy stemming from the management literature. A case study of an innovation in the global wine industry is used to develop the propositions. In particular, consumer approaches to the purchase of this innovation are examined across three countries; Australia, New Zealand and the United States. It is shown that the rate of adoption in each country is heavily influenced by alliances formed among competitors. The authors suggest that the difference in diffusion rates are due 'co-opetition' among wineries. These types of strategies are necessary when high perceived risks and uncertainty to adoption exist for consumers.

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## 1.0 Introduction

Factors affecting the dissemination of knowledge and the diffusion of innovations have been studied extensively within numerous disciplines. Scholars in education, sociology, agriculture, political science, journalism, management, communications, and marketing have conducted such studies. Although the findings from one discipline frequently diffuse to others, each discipline has its specialized focus. For example, social scientists focus on the evolution and structure of networks as a vehicle for the dissemination of knowledge and the diffusion of innovations (Abrahamson and Rosenkopf 1997, Young 1999). New product researchers have primarily approached the diffusion of innovations from the innovation attribute perspective. One commonality across these studies is the assumption that **all** innovations eventually diffuse through a population.

However, some innovations are 'resistant' to diffusion. Resistant innovations (Krackhardt 1997, Molesworth and Suortfi 2002, Ram and Sheth 1989) are types of innovations that cause a discontinuity in the existing market or technology base because of attributes embodied in the innovation whose benefits are unrealized by the adopting party. Examples of resistant innovations have been ATMs, hybrid electric automobiles, and fluoridation of city water. All these innovations experienced slow initial adoption because consumers were skeptical of their usefulness. Ram and Sheth recommend several marketing strategies in which to overcome consumer resistance to innovations. These prescriptive suggestions follow traditional marketing and communication strategies. Although these normative guidelines can be used with success with many innovations, however, we conjecture that these suggestions are limiting. In this study we seek to extend the diffusion of resistant innovation theory by introducing competitive cooperation as an alternative strategy. Co-opetition, another name for the strategy of cooperating with ones' competitors, has been introduced in the innovation and management literature as a means of increasing technological diversity and improving innovation output (Brandenburger and Nalebuff 1996, Gomes-Casseres 1996, Harbison and Pekar 1998). We suggest that it can also be a strategic option for

diffusing resistant innovations. Therefore, the primary research question in this study is: *How can a strategy of co-opetition be used to diffuse resistant innovations?*

We use a case study set within the global wine industry in order to evaluate our propositions. This industry is characterized by independent ‘wine regions’ that compete on both a local and global level. Intense competition, both locally and from around the world, creates a need to stand above the crowd. Theoretical foundations indicate that innovations should easily diffuse in this global industry because innovations are simplistic, multi-national corporations are prevalent, and the marketplace is globally connected. ‘Global uniformity’ has been noted to facilitate the diffusion of innovations (Wejnert 2002). However, the wine industry is characterized by short product life cycles (typically one year), fickle consumers and distributors, and few alliances between producers. These factors along with unpredictability in quality of supplies (primarily due to the dependence on weather conditions) lead to dynamic environments rife with uncertainty. Another factor that contributes to this uncertainty is an inconsistent supply of quality corks closures, which has been an issue in the wine industry for many years. It has been reported that defective cork closures causes anywhere from 1%-15% of all wine bottlings to become undrinkable or ‘corked’, as referred to in the industry (Sogg 2005). This tainting results in hundreds of millions of dollars in lost revenue annually. To counter this problem, screw caps on *fine* wines were introduced to the market place in 2001. However, this created another problem. Screw caps on mid to high-end wines have been shown to be ‘resistant’ innovations. Wine consumers exhibit high reluctance to purchase expensive wines with screw caps despite the well documented benefit shown of preserving wine ‘freshness’ better with screw caps than with corks. Yet, uncertainties regarding the quality of wine and the benefits of this type of closure prevail. We use this case study to evaluate our propositions, which we develop in section §4.

The aim of this study is to investigate the role of cooperation among competing firms with the intent of speeding the diffusion of a resistant innovation, thus, uniting the existing theory for the diffusion of innovations with theory of co-opetitive strategies. In order to develop our main hypothesis, we first review the theoretical perspectives of the diffusion of resistant innovations. We then provide the

theoretical foundation of a co-opetition strategy. In particular, we use the global wine industry as a case study in which to evaluate our propositions. We conclude with suggestions for future research studies.

## **2. Theoretical perspectives of diffusion of resistant innovations**

‘Resistant’ innovations ‘create a high degree of change in the consumers’ day-to-day existence and disrupt their established routines’ (Ram and Sheth 1989, pg. 6). These types of innovations may also conflict with a consumers’ prior belief structure. Ram and Sheth define it as: “Innovation resistance is the resistance offered by consumers to an innovation, either because it poses potential changes from a satisfactory status quo or because it conflicts with their belief structure.” (pg. 6). We further elaborate by noting that typically these innovations do not possess the traditional factors that hinder diffusion of innovations. The extant literature has focused on several product characteristics that contribute to slow diffusion rates including the innovation’s trialability, observability, complexity, compatibility, and quality (Mahajan, et al 2000, Rogers 1995, Sultan, et al 1990). However, resistant innovations are often typified as being easily trialed, readily observed and quality is not an issue for these innovations. Instead, perceived uncertainties about performance are prevalent, which lead to consumer uncertainty.

Ram and Sheth (1989) suggest that there are five barriers which prohibit consumers from adopting innovations: ‘usage barriers’, ‘value barriers’, ‘risk barriers’, ‘tradition barriers’, and ‘image barriers’. ‘Usage barriers’ refer to consumer resistance to an innovation that is not ‘compatible with existing workflows, practices or habits’ (pg. 7). ‘Value barriers’ appear when an innovation does not offer a strong performance-to-price value compared to other competing products. ‘Risk barriers’ become relevant when customers are uncertain about physical risks, economic risks, functional risks or social risk from using a product. ‘Tradition barriers’ occur ‘when an innovation requires a customer to deviate from establish traditions’ (pg. 9). ‘Image barriers’ occur when a consumer associates an unfavorable image with a product. Ram and Sheth suggest that each of these types of barriers can be over come by using traditional marketing or communication strategies. They include making fun of a negative image, eliciting endorsements and testimonials, and creating a unique image among the possible solutions (see

Table 1 for a summary). These strategies are commonly used by firms that wish to overcome one or more of the barriers noted. For example, Volkswagen is famous for its Beetle marketing campaign where it made fun of itself with slogans such as “More power, less flower” and “0 to 60 – yes” trying to overcome its image from the late 1960s and early 1970s in the United States where Beetles were a cheap mode of transportation with limited features for the ‘hippies’ of that era. However, as we will demonstrate in the next section, these strategies outlined by Ram and Sheth do not work for all resistant innovations. We introduce the ‘resistant’ innovation, the screw cap on fine wines as one such product.

### **3.0 Screw caps: A resistant innovation in the United States**

An inconsistent supply of quality cork has been a quality and production issue in the wine industry for many years. Trichloroanisole (TCA), a natural occurrence in cork, has been shown to be capable of imparting a musty taint to a variety of foods and beverages, most particularly wine. This bottle contamination is known as a ‘corked bottle’ or ‘cork taint’. This issue has resulted in millions of dollars of lost revenues due to wine disposals and brand name erosion because most wine consumers do not realize that the poor taste is due to cork taint and blames the offending flavor on a poor vintage or a cheap brand. Through many trials and years of technical testing screw cap closures, also called Stelvins or twist offs, have been found to eliminate cork taint and other malodorous flavors occasionally found with cork closures. Twist off closures also were found to eliminate wine oxidation that leads to rapid aging, discoloration, and/or loss of fruit flavors due to air leakage that can occur with other types of closures. Additionally, Stelvins were also found to provide ‘consistent, reliable, ageing characteristics, showing the wine’s development as the winemaker intended’ (Courtney 2001).

Screw caps on wine have almost a 50-year history in the wine industry. It was developed and tested for feasibility as a wine closure in the late 1950s and early 1960s. In the late 1970s it was introduced in the Australian marketplace by Yalumba Wineries. A few New Zealand wineries followed suit. Between 1976 and the early 1980s approximately 20 million wine bottles were sealed with the twist off closure. But by 1984, the Australasian producers had stopped using the Stelvin because of consumer

resistance to accept a screw cap closure. The effect on Yalumba's Pewsey Vale Rieslings, an early introduction, almost killed the brand as a prestige product (Bourne 2000). However, the innovation did not completely die out with these failed introductions. The technical superiority of Stelvins over other closures, including the traditional cork closure, caused its resurgence in 2000 this time with great success in Australia and New Zealand but not in the United States.

In an attempt to identify the reason for the successful launch of the screw cap in Australia but not in the United State we conducted extensive research into consumers' buying habits regarding wine (to be further discussed in the next section). Our research has shown that screw caps indeed are not compatible with existing practices and habits of US wine consumers. Cork closures are highly representative of a long tradition of wine drinking and the screw cap is not congruent with this tradition. Most US wine consumers associate the screw cap with inexpensive jug wines. Thus, most US wine producers have not adopted the screw cap, primarily due to customer reluctance to purchase wines using the screw cap. However, a hand full of US wineries has recognized the benefits of the twist off closure on wines and has begun to embrace this innovation. Many of these wineries have used the strategic marketing positioning suggested by Ram and Sheth.

Ram and Sheth recommend improving the product's positioning by creating a unique image. Currently, a (lack of) value perception is one of the major downsides of screw caps. Because of the historical usage of screw cap closure on low-end wines, consumers do not *perceive* the performance-to-price value compared to cork closures. They still associate the screw cap with low quality, low value wines. Thus, one way of altering screw caps negative image is by introducing the screw cap only on mid-to-high end wines to send a signal of quality. In order to reduce the likelihood of making a bad purchase decision, consumers employ risk reduction strategies (Greatorex and Mitchell 1988). To do this consumers rely on extrinsic cues such as pricing and packaging, which represent perceived value (Spawton 1991). PlumpJack, a Napa based winery (<http://www.plumpjack.com>) has taken the strategy of only putting the screw cap on their *high-end* wines, utilizing the extrinsic cue of price to signal high value. They introduced the screw-cap version of their 1997 Reserve Cabernet for \$135 a bottle; the

bottles sealed with cork went for \$125. With this price differential, PlumpJack sought to change the negative public perception of the screw cap by signaling higher value with the screw cap (see Figure 1) and thus, repositioning the low brow image of the screw cap. Another winery, 3 Loose Screws ([www.3loosescrews.com](http://www.3loosescrews.com)), owned by the old Napa Valley wine family of Sebastiani and Sons has chosen to attack the image barrier by making fun of screw cap's negative image. This is evident by the name of the company alone. Additionally, they call their line of mid-priced (average price \$8 retail) screw capped wines, Screw Kappa Napa. They have a playful website and bottle labels (see Figure 2). Hogue Cellars of Washington State ([www.hoguelcellars.com/feature/homework.html](http://www.hoguelcellars.com/feature/homework.html)) have taken the approach of lowering the tradition barrier by educating the consumer of the benefits of their screw capped products (see Figure 3). Beringer, another Napa Valley based winery, has taken yet another strategy suggested by Ram and Sheth to overcome the usage barrier, which is to mandate usage of the innovation making it the only option available to the consumer. Two-Tone Farm a new venture by Beringer uses screw caps on all their bottles. They also target the young, urban, professional interested in music, food and fun. Their products are priced at less than \$10 and each new release includes a music CD of up-and-coming small bands. By positioning for this younger market, they are targeting those consumers that are more likely to be open to new ideas and are more likely to be 'change agents'. The use of change agents is another strategy suggested by Ram and Sheth, in particular if one wishes to reduce the tradition barrier.

Despite the marketing efforts of these firms, and others like them, screw caps are innovations that have not gained popularity with the American consumer. To confirm the anecdotal evidence suggesting that US Wine consumers do not value twist off closures, we conducted a consumer survey of wine drinkers. We summarize this study in the next section.

### **3.1 Conjoint Study**

In cooperation with a Napa Valley-based closure manufacturer and a few US wineries interested in consumer preferences for screw caps, we sought to determine the preferences of over 2800 leading-edge wine customers in the US, New Zealand, and Australia. We recruited 2,825 leading-edge wine consumers from the US, Australia, and New Zealand who were subscribers to various wine-related e-

newsletters. In the US, respondents were recruited from the WineX e-list, which targets young adults, and from WineBrats, a nation-wide social organization with clubs in twenty-one major US cities. In Australia and New Zealand the list was obtained from Vine Cellars, a wine retailer that provides an e-newsletter to their customers. Breakdown of respondents by country were Australia, n=1097; New Zealand, n= 385; US, n= 1343. Daily wine consumption of respondents was approximately equal across all three countries (AUS – 36.2% consume daily; NZ – 28.6%, US – 25.1%). Thus, the respondents could be expected to be knowledgeable about fine wines while representing the thought leaders in the marketplace. Managerially, the sponsors were interested in the tradeoffs that these consumers would make between wine closures and other features of wine for which we created an adaptive choice based conjoint study. The conjoint design included five features at four levels each:

- closure type: traditional cork, synthetic cork, Metacork™, Stelvin (screw cap)
- type of wine: dry white, aromatic white, dry red, blush red
- origin: Australia/NZ, France, Sonoma/Napa, Chile/Argentina
- vintner: small boutique, mid-size regionally known winery, large nationally recognized winery, international conglomerate winery
- price at four levels in the respondents' currency (e.g., Australian dollars)

Respondents were tasked two sets of twelve choice-based conjoint questions as illustrated by Figure 4. This methodological approach and results of this study are elaborated upon in another paper, which is available upon request from the first author of this study.

Conjoint results show that Australians (AUS) and New Zealanders (NZ) prefer Stelvin closures more than Americans (Figure 5). Synthetic corks were their least preferred. But in regards to overall closure preferences, AUS and NZ consumers are indifferent between Stelvins and natural cork closures. In the United States, respondents prefer corks to other types of closures, with Stelvins their least preferred. It is interesting to note that for Australasian, type of closure is independent of all the other four

attributes tested. They are indifferent between cork and Stelvins on any type of wine product regardless of region, price, type of wine, or type of winery. However, Americans strongly preferred corks on most wine products. *If* they were to select a wine with a screw cap closure it would be on a dry red wine from a small US winery in the \$10-15 range as they have greater preference for this ‘package’ compared to other types of wines (dry white, aromatic white, blush) from a similar winery at the same price point even if sold with a natural cork closure.

Using the self-explicated questions from the conjoint analysis we also examined the difference in preferences between adopters of the screw cap and non-adopters. It comes as no surprise that adopters of the screw cap have higher preferences for this type of closure compared to non-adopters (See Figure 7). This is true across all three countries. What should be noted is the similarity in the change of preferences for adopters versus non-adopters across the three countries. There are no differences between the slopes, or in other words, the rate of change in preference from adopter to non-adopter. Once this product is adopted the benefits of the screw cap are recognized equally among consumers even in different countries. This begins to suggest that the *consumers’* valuation for the screw cap do not vary significantly across countries, thus, other factors must exist in the marketplace so that Australasian consumers have adopted the screw cap whereas the US consumers have not.

In an effort to understand what marketing techniques might be effective with these different types of consumers, we also gathered information about how these respondents collected knowledge regarding wine. Australian wine consumers appear to have more in common with their American counterparts than their New Zealand counterparts regarding this issue. Australians and Americans regularly read about 4 wine-related periodicals and routinely discuss wine with others (friends, family and co-workers; AUS – 29.5% strongly agree, US – 42.1% strongly agree). A minority of AUS (35.8%) and US (13.4%) respondents attend wine functions (tastings, courses, trade shows, etc.). However, New Zealanders routinely read 3 periodicals, are less likely to talk to others about wine (8.9% strongly agree) but a majority attend wine related functions (56.4%). New Zealanders appear more willing to obtain information from 3<sup>rd</sup> parties (at wine related functions) than through word of mouth of friends and family.

From this consumer study we gain two significant insights: first, in the sample population Australasian wine consumers greatly prefer screw cap closures compared to their American counterparts and second, Australians appear to have more practices in common with Americans when selecting wine and collecting information regarding wines than they do with New Zealanders. It can not be said that ‘innate differences’ between Australasians and American make the former group of consumers more open to adopting the screw cap. Neither can we show that timing of the introduction of the Stelvin was an issue. Even though the Stelvin closure was re-introduced into the United States at about the same time that it was re-introduced in Australia and New Zealand (in 2000), it still does not appeal to Americans. This suggests that despite the efforts of those wineries using the Ram and Sheth normative guidelines the screw cap is ‘resistant’ to these traditional marketing strategies. We offer a co-opetition strategy as an alternative. We develop this strategy in the next section and continue with our case history of the screw cap to support our propositions in the following section.

#### **4.0 Co-opetition Strategy**

Co-opetition is a form of a strategic alliance in which two or more interorganizational firms in the same industry, who normally compete against each other, instead cooperate together in order to accomplish a specific goal (Brandenburger and Nalebuff 1996, Gomes-Casseres 1996, Harbison and Pekar 1998). Firms have embraced co-opetitive alliances in order to (a) exchange patents and other knowledge, (b) undertake collaborative research and development activities, (c) build market alliances for setting new standards, and (d) establish collaborative agreements to integrate existing businesses (Garraffo 2002). Some historical examples include the Microelectronic and Computer Technology Corporation (MCC)<sup>1</sup>, an alliance of 22 firms contributing to R&D efforts with common industry objectives; the 56-member Corporation of Open Systems whose goal is to establish standards for testing

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<sup>1</sup> MCC is a cooperative R&D consortium started in 1985 whose mission is to strengthen and sustain the competitiveness of member companies who share a common technical vision in information technology. Research programs include projects in areas such as software technology, computer-aided design, advanced computing technology, displays, holographic storage, power sources, superconductivity, and distributed information systems. (source: <http://rel.intersil.com/docs/lexicon/M.html>)

open-system network architectures, and SEMATECH<sup>2</sup>, a consortium initially formed in 1987 with 14 U.S.-based semiconductor manufacturers set up to exchange knowledge regarding semiconductor manufacturing techniques. More recent examples include Linux Inc., “a cooperative venture in which employees at about two dozen companies, along with thousands of individuals, work together to improve Linux software. The tech companies contribute sweat equity to the project, largely by paying programmers' salaries” (Hamm 2005) and the alliance between Apple Computer, Inc. and Sony Corporation to manufacture Apples' Powerbook computers. These types of formal alliances have been studied extensively in the extant new product and management literature either from a competitive strategy viewpoint or from a collaboration strategy viewpoint (c.f. Ring and Van de Ven 1992, Tushman and O'Reilly 1997, Dyer and Singh, 2000). Only recently have these collaborative approach been considered from a co-opetitive viewpoint (Garraffo 2002, Quintana-Garcia and Benavides-Velasco 2004).

These recent studies have shown that co-opetition is emerging as a sustainable strategy (Quintana-Garcia and Benavides-Velasco 2004). These researchers suggest that competitors may be critical sources of knowledge, organizational learning, complementary products, capabilities and critical resources. By working together co-operating firms can maximize resources, stimulate knowledge development and utilization, and expand market opportunities (Jorde and Teece 1989). Thus, ‘value creation’ is one motivating factor that drives cooperation among competitors. Cooperation and competition merge together to form a new kind of strategic interdependence between firms, giving rise to a co-opetitive system of value creation (Diagano and Padula 2002). Co-opetition occurs so that firm complement and enhance each other in different areas such as production, introduction of new products, entry into new markets, reduction of firm costs and risk as well as the creation and transfer of technology and capabilities (Bengtsson and Kock, 2000, pg.414). Complementarity of firms in R&D activities and

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<sup>2</sup> **SEMATECH**, headquartered in Austin, Texas, is the world's catalyst for accelerating the commercialization of technology innovations into manufacturing solutions. By setting global direction, creating opportunities for flexible collaboration, and conducting strategic R&D, SEMATECH delivers significant return on investment to our semiconductor and emerging technology partners. (source: <http://www.sematech.org>)

asset specific resources, particularly between domestic and foreign firms, is a key factor in the formation of co-opetitive agreements (Garraffo 2002).

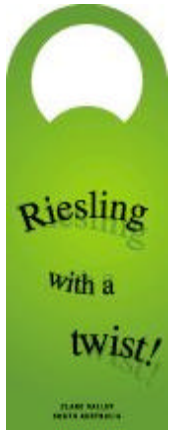
Technical uncertainty in some industries has been another reason for developing alliances among competitors (Jorde and Teece 1989). In competitive environments stimulated by emerging technologies industries (i.e., biotechnology, information and communication, semiconductor), firms seek to spread the risks related to the marketplace (Garraffo 2002). These emerging technologies increase the level of uncertainty on market opportunities and technological developments. Firms co-aligning strategies can manage uncertainty by sharing resources and spreading risks among cooperating competitors.

As notable from the previous discussion and the examples given, the extant literature on co-opetition has primarily focused on its role in technological industries and the development of innovations. It has essentially ignored its impact on the diffusion of innovations and its role within other types of industries. This paper strives to rectify this oversight. We suggest that any industry rife with turbulence, risk and/or uncertainty can benefit from co-opetitive strategies. We provide the following propositions to guide our analysis of our case study, the diffusion of the resistant innovation, the screw cap, into the wine marketplace. Thus, we suggest that:

- P1. A co-opetition strategy will be more profitable to a firm as opposed to competitive strategies in the diffusion of resistant innovations.
- P2. Co-opetition marketing strategies are beneficial when high consumer uncertainty exists about the benefits of adopting an innovation.
- P3. Co-opetition marketing strategies are beneficial when high social risks exist for consumers in adopting an innovation.

## **5.0 Case Study**

We suggest that a strategy of co-opetition was used in the Australian and New Zealand wine market to diffuse the Stelvin. Driven by the superiority of screw caps over cork closures, a group of 15 winemakers from the Clare Valley of Australia selected the Stelvin for closing their premium Rieslings in



2000. Having some insights from the failures twenty years previous, the collaborative of wineries jointly launched a marketing campaign, 'Riesling with a Twist' in which they communicated to the media, consumers and retailers the quality aspects of the seal. This campaign included bottle neck tags (see Figure 7), print advertisements, press releases, and training of store personnel so that the benefits of the Stelvin closure were relayed to consumers. The goals of the collaboration were to promote the use of screw caps; to provide technical education and support to members regarding screw cap wine seals; and to educate

**Figure 7**

the wine trade, wine press and consumers of the benefits of screw caps to seal wine. This campaign was received very positively by media and by consumers. In this situation, competitors formed a network governance in order to overcome the marketplace uncertainty prevalent in screw caps. The campaign was a huge success as supply could not meet demand for the screw capped wines. These wineries soon began to bottle not only their white wines but also their red wines with Stelvins. As noted earlier, in the 1970s a few Australian wineries had tried to individually overcome these uncertainties, much to their consternation as significant amounts of money, energy and time went in to their unsuccessful attempts. It was not until the collective was formed that screw caps were successfully introduced into the marketplace in Australia.

The success of the Australian launch motivated 27 New Zealand wineries to form the New Zealand Wine Seal Initiative in late 2001 ([www.screwcap.co.nz/](http://www.screwcap.co.nz/)). The Initiative also focused on educating the trade and consumers of the superiority of screw caps. This campaign educated not only the wine consumers but also the retailers on the advantages of the screw cap over natural cork closures, which were three-fold – to reduce corked bottles, to ease the opening of a bottle of wine, and to ease storage of open bottles for future consumption. By 2004, sales of screw capped wines outnumbered wines with cork closures in New Zealand and Australia (Sogg 2005).

Therefore, New Zealand wine producers provide an example of competitive cooperation in which competing wine producers cooperate to make advancements within the industry as a whole. In this case, the adoption of the resistant innovation, the screw cap, by wine consumers is aided by a combined production and marketing effort among wine producers who previously only looked upon each other as competitors. Without the joint effort, the mainstream consumer has not been affected by the traditional marketing strategies used to communicate the product benefits. This was evident in the initial launch of the screw cap in the Australian and New Zealand market in the 1970s and the near failure of the pioneering firm's product, Pewsey Vale Rieslings. Diffusion success required a 'cooperative' of wineries with a united front and consistent story to move consumers toward adoption.

As earlier described, the United States wine market is currently in a situation where despite the efforts of individual producers the mainstream market is either not accepting or has not heard the story of the benefits of the screw cap. It should be recalled that the first well publicized introduction of screw caps on US wines occurred in 2000 with several wineries adopting the screw cap, yet, these single piecemeal introductions have not caused the 'tipping point' that has occurred in Australasia. Comparatively, to date, the benefits of screw caps have not disseminated into the US market. Less than 5% of wineries in the US bottle use screw caps. Few US wine consumers know of the benefits these types of closures. In fact, producers from Australia and New Zealand ship to the US the same vintage of wine sealed with corks that they offer domestically with screw caps. Thus, evidence exists that a co-opetitive strategy will be more profitable to a firm as opposed to competitive strategies in the diffusion of resistant innovations.

Uncertainty of a products' benefits embodies resistant innovations. As suggested by Ram and Sheth it is necessary for the manufacturer and retailers of these types of products to educate the consumer on the benefits of the product. However, we suggest there needs to be a 'loud and influential' voice to override the high and well entrenched barriers regarding the screw cap which we previously discussed. In the fragmented wine industry where small family-owned wineries outnumber large publicly-owned wineries, it is difficult for one manufacturer to reach the mainstream market. Thus, a co-opetitive strategy

can be used to pull resources, in particular marketing dollars, in order to make the message of ‘screw cap superiority over other closures’ heard. The National Milk Council of the United States is an example of how this method can be used with success. The National Milk Mustache "got milk?"<sup>®</sup> Campaign is jointly funded by America's milk processors and dairy farmers. The goal of the multi-faceted campaign is to educate consumers on the benefits of milk and to raise milk consumption. It has been quite successful in its mission. Thus, evidence exists that co-opetitive marketing strategies are beneficial when high consumer uncertainty exists about the benefits of adopting an innovation.

Another important factor to this conglomeration of competitors is that it conveys a message of unity. Ram and Sheth suggest that eliciting endorsements and testimonials and facilitating trials in order to overcome social risk barriers. Again, this can be difficult for a single winery to accomplish alone. But no better endorsement exists for a resistant innovation than a group of competitors cooperating to show consumers the validity of the superiority of the product. It also sends a signal that a manufacturer is confident enough about a product to take a risk by joining forces with the competition to relay an important message. It is also a message of ‘group think’ where manufacturers are asking consumers to join their group of knowledgeable and savvy wine connoisseur. Thus evidence exists that co-opetitive marketing strategies are beneficial when high social risks exist for consumers in adopting an innovation.

## **Conclusion**

This current study hypothesizes that organizations interested in diffusing innovations in uncertain environments may be able to utilize competitive cooperation to speed the rate of diffusion. An international survey showed that wine consumers in three countries are quite similar in their approach to the purchasing process. Their preference for wine bottle closures, and subsequently, the adoption rate of the closures are very different. We posit that the difference is due to the structure of the industry in Australia and New Zealand. The Australasian wine industries are conducive to the establishment of cooperation among competitors. This enabled them to introduce innovative packaging for wines using a

coordinated marketing campaign. In comparison, the United States wine industries are less willing to form alliances among each other, and thus, have not been as successful in alternating consumers' perception of innovative packaging of wine products.

This research adds to the marketing strategies recommended by Ram and Sheth (1989) for diffusing resistant innovation. Competitive cooperation is shown to be an alternative strategy for uncertain market environments. These findings will help to guide other firms in similar environments in diffusing these types of innovations. Knowing when and how to use competitive cooperation in the innovation process will be of interest to individual firms and industry consortiums and should be the focus of future research.

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Figure 1 Screw capped offering by PlumpJack winery



Figure 2 Screw Capped Offering by 3 Loose Screws Winery

**3 LOOSE SCREWS** s|k|n  
 A DIVISION OF DON SEBASTIANI & SONS THIS IS A CORK FREE ZONE

**MENU** CABERNET SAUVIGNON | CHARDONNAY | MERLOT | SAUVIGNON BLANC | ZINFANDEL

**TASTING NOTES**  
 This Cabernet has coffee, ripe raspberry and vanilla oak aromas. The palate is very rich with strong tannins. This cab will cellar well for five to seven years.

**TECHNICAL NOTES**

PH	3.62
TA	0.52
ALC	14.0%

**SCREW KAPPA NAPA 2003 CABERNET SAUVIGNON** QTY. 005  
 NAPA VALLEY

**3LS** NOTE: A 4 oz. glass of Cabernet Sauvignon typically has 1.7g carbs and 83 calories **DOWNLOADS**

Figure 3 Web page for Hogue Cellars Screw Capped Offering

**WE'VE DONE OUR HOMEWORK**

We tested every type of wine stop and found:  
**Screwcaps keep wine flavors freshest and eliminate cork taint.**

Ready for your Take Home Test?

**THE VIDEOS**  
 Learn about cork taint, oxidation and what 30 months of research told us about each and every type of closure.  
 Cork Taint Film: [1:28](#) - [2:28](#)  
 Closure Test Video: [0:55](#) - [3:08](#)  
 Hogue Cellars Tour: [0:51](#) - [3:08](#)  
[Download](#) required

"Hogue, the fastest growing Washington State brand in America!"

**THE RESULTS**  
 The winemakers at Hogue Cellars present the results of a 30 month test of wine closures.

[Download the official -- Press Release \(PDF\)](#)  
[Have Questions? Get answers -- Screw Cap FAQ](#)

Figure 4 Conjoint Design

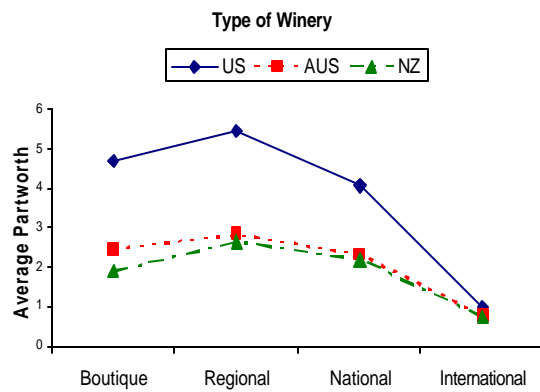
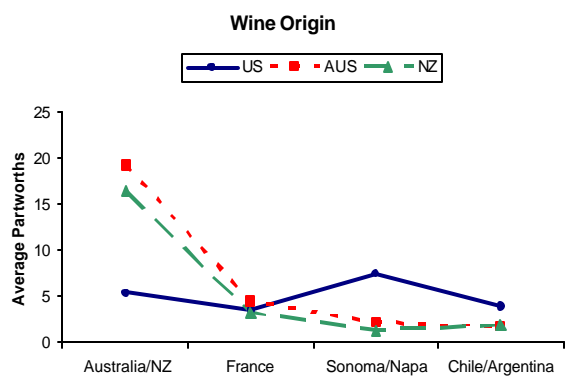
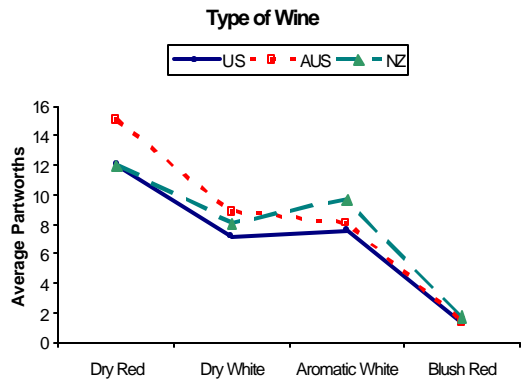
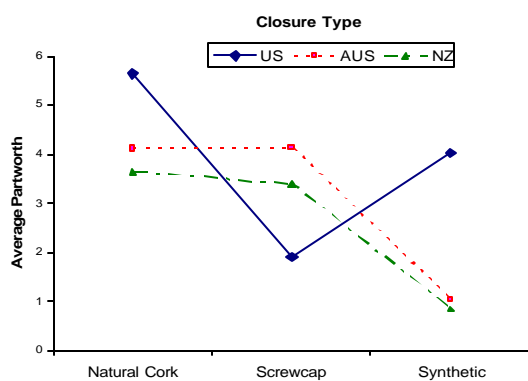
**Choose a** Wine for Everyday Drinking at Home with Family or Close Friends

From the choices presented here, please select your most preferred choice.

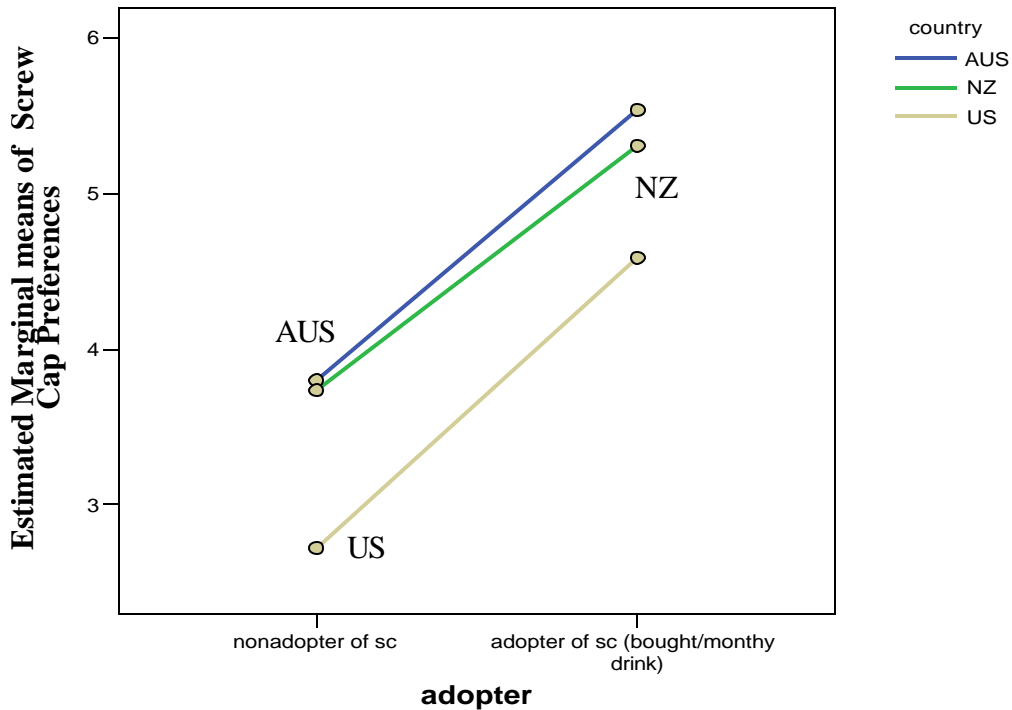
Question 1 of 12 for this section

Features	Choice A	Choice B	Choice C	Choice D
Wine Type	Aromatic White	Aromatic White	Aromatic White	Aromatic White
Region	Sonoma/Napa, California USA	S. America (Chile, Argentina)	Australia/NZ	Australia/NZ
Closure Type	Traditional Cork	Traditional Cork	Metacork	Traditional Cork
Price range	\$AU15.00-\$19.99	\$AU15.00-\$19.99	\$AU15.00-\$19.99	\$AU15.00-\$19.99
Type of Winery	Small Boutique	Small Boutique	Small Boutique	Mid-Sized, regionally known

Figure 5 Conjoint Partworths



**Figure 6 Mean Differences Between Adopters and Non-adopters**



**Table 1: Marketing Strategies to overcome Sources of Resistance**

Source of Resistance	Marketing Strategy
1. Usage Barriers	<ul style="list-style-type: none"> <li>• Mandate usage to develop market</li> <li>• Develop a systems perspective</li> </ul>
2. Value Barrier	<ul style="list-style-type: none"> <li>• Improve product performance</li> <li>• Improve product positioning</li> <li>• Reduce price</li> </ul>
3. Risk Barrier	<ul style="list-style-type: none"> <li>• Use a well known brand name</li> <li>• Elicit endorsements and testimonials</li> <li>• Facilitate trial</li> </ul>
4. Tradition Barrier	<ul style="list-style-type: none"> <li>• Educate customers</li> <li>• Use change agents</li> <li>• Understand and respect traditions (coping strategy)</li> </ul>
5. Image barrier	<ul style="list-style-type: none"> <li>• Borrow a good image (brand name)</li> <li>• Make fun of a negative image</li> <li>• Create a unique image</li> </ul>

Based on Ram and Sheth (1989)