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CLOSURE TYPE ON CONSUMER  
EXPECTATIONS, PRICE PERCEPTION  
AND WILLINGNESS TO PURCHASE  
WINES IN CANADA**

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# **Importance of eco-logo and closure type on consumer expectations, price perception and willingness to purchase wines in Canada**

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Québec and Ontario wine drinkers displayed low interest in purchasing environmental friendly even if they were willing to price premium of CAN\$1.11 for wines with “100% Eco-friendly” claim when buying a bottle with an average value of CAN\$15.53. Organic and biodynamic affected negatively the price and purchase intent. On the contrary, consumers were most likely to buy (~6%) and would pay CAN\$1.69 and CAN\$1.29 more for wines sealed with natural corks compared to those sealed with synthetic or screw cap closures, respectively. However, closures and eco-label claims did not have a combined utility to respondents’ by signaling higher “environmental friendliness”.

## **Introduction**

Product differentiation, competitive advantage and increased sales could be achieved by wineries through the adoption of environmentally focused practices (Nowak and Washburn, 2002). However, a competitive advantage can only be gained in the marketplace if firms are able to communicate to consumers’ about their environmental focus (Bisson et al., 2002). Environmentally sustainable products are credence goods; consumers cannot ascertain their environmental qualities during purchase or use (Crespi

and Maret, 2005). Consumers are not present during the production process of the product and therefore cannot assess environmental friendliness of production. Therefore, extrinsic cues such as packaging has an important function of eco-labeling, being used to reduce information asymmetry between the producer of sustainable products and consumers by providing credible information related to the environmental credentials of the product (Leire and Thidell, 2005). Eco-label logos and claims are the most used extrinsic attributes to signal the environmental attributes of wines to consumers. While organic and biodynamic are the most successful eco-claim at this stage, it is by no means the only sustainable claim. Environmental responsible, made with sustainable practices, 100% eco-friendly, carbon neutral, greener planet are other environmental sustainable claims that can be found on wine bottle labels (Zucca et al., 2009). Because the eco-label/claims are the first line of communication to entice the consumer, it seems therefore extremely important that other extrinsic packaging attributes can also meet the “information” that environmental friendly claims try to convey.

An important attribute of wine packaging is type of closure that by its sealing properties can directly influence the intrinsic attributes of wines. Moreover, closures are also an important extrinsic packaging attribute. Various types of closures such as cork stoppers, screw caps and synthetic closures can be considered by consumers to be a direct reflection of the wine quality and in some extent influence their purchase decision. (Chaney, 2000; Reidick, 2003; Toubia et al., 2005; Barber and Almanza, 2006; Barber et al., 2008; Marin et al., 2007a; Barber et al., 2009b). Although ample research has been conducted on the importance of wine bottle closures in quality perception and purchase decisions of consumers in different countries, however, little is known about how type of closure affects consumer expectations, price and willingness to purchase eco-labeled wines.

## **Methodology**

A Traditional Conjoint Analysis (CVA) was used to measure “how closures and eco-label logos influence price and purchase intent of wines in Ontario and Québec markets”. Traditional Conjoint Analysis provides to the respondent’s different product/service scenarios whose attributes and levels vary according to an experimental design. Respondents are typically asked to rate or rank the product scenarios. Once data is collected, analysis reveals the relative importance, called utility, of each of the different

levels of each attribute. These utilities can then be used to understand the importance of those attributes and can be used as the basis for segmentation analysis (e.g., to understand whether different segments vary in terms of the attributes that are most important to them), and can also be used to develop a market simulator that allows “what-if” scenarios to be conducted.

In this study two extrinsic wine attributes were selected: type of closure and environmental sustainable or eco-labeled claims. In figure 1, the made-up bottle and label that simulates a Napa Valley, California (U.S.) Cabernet Sauvignon red wine, which has shown to be the most important type of wine and variety, and one of the most important country/region wines consumed in the Canadian market where this survey was conducted (Wine-Canada Euromonitor, 2009). The closures tested were natural corks, synthetic closures and screw caps, which represents the different types of wine seals in the Californian wine industry. The environmental claims/eco-label logos tested were organic, biodynamic and 100% eco-friendly as they are the most “green” terms and logos used in eco-labeled wines in the U.S. (Tach and Olsen, 2010).



	Attribute	levels	1	2	3	4
1	Type of closure	3	Natural cork	Synthetic	Screw cap	-
2	Environmental claim	4	Organic	Biodynamic	100% Eco-friendly	No claim

**Figure 1. Bottle graphic representation with the different attributes and levels used on the Traditional Conjoint Analysis.**

The respondents saw the same bottle whose type of closure and eco-logo (or without it) varied according to the experimental design. For each bottle shown, the respondents were asked about the likelihood of buying the wine bottle on a Juster scale (1= unlikely 0% chance, to 5 = about a 50% chance to 10 = 100% likely to buy), the price they would pay for it and finally if they would actually purchase the wine for the price they wrote. The respondents were asked to state their likelihood of buying, price and purchase intent for each bottle representation imagining that they were in a retail store buying a wine to drink by themselves or with other people at home. Each respondent assessed 12 (3x4)

different graphical bottles representing the different possible combinations of closures and environmental claims.

In order to qualify for the study, respondents were not allowed to work in marketing, market research and in the wine industry, are required to have purchased or drunk wine in the last three months and be above the legal drinking age (L.A.) according to the province legislation (18 and 19 years old in Québec and Ontario, respectively). 300 respondents were recruited in each province; however, after editing and cleaning the dataset, only 298 and 299 questionnaires in Ontario and Québec were considered valid, respectively.

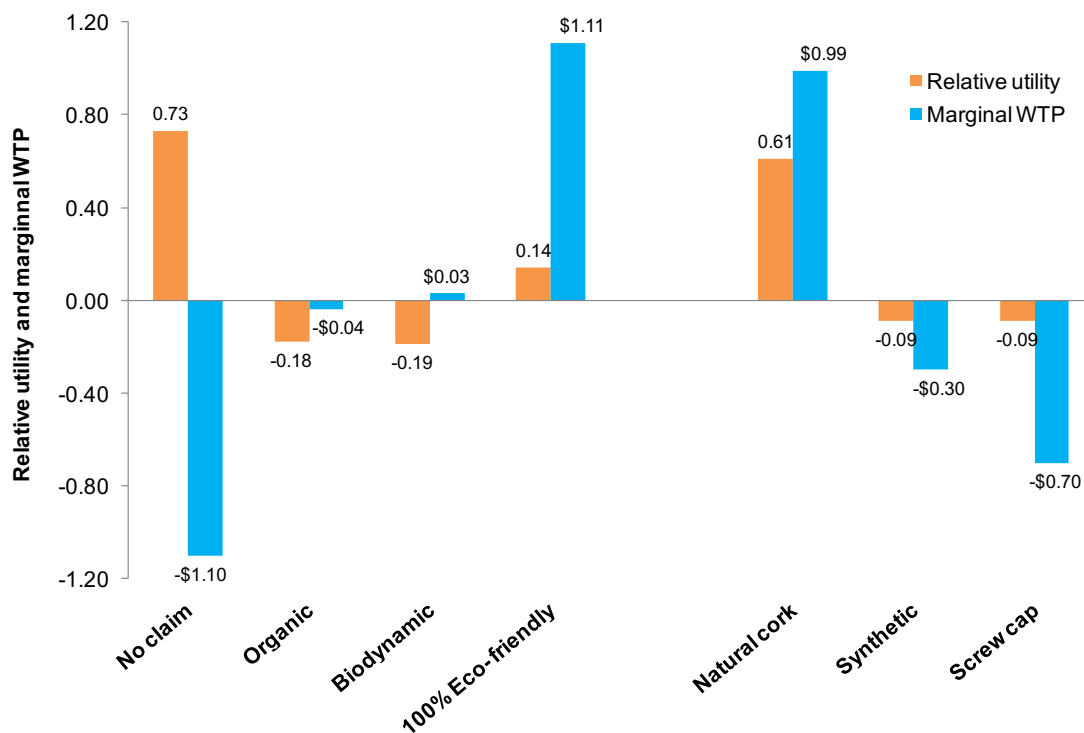
The questionnaire was conducted on the web using people recruited by a web-panel provider (GMI - Global Market insight Inc., Paris, France, May 2011). The respondents took, as planned, between 12 and 15 minutes to answer the questionnaire. The survey had a response rate of around 40%, which was within the incidence rate contracted with the on-line panel provider.

## **Results**

The average respondents' likelihood of buying the Cabernet Sauvignon wine bottle was 61%, which was increased by 1.2% when the bottle had eco-logo "100% Eco-friendly" and 0.8% for the bottles without eco-logo. "Organic" and "biodynamic" eco-logos generated a reduction on the likelihood of buying the bottle, of 1.6% and 0.34%, respectively. However, the consumers did marginally value bottles with eco-logo "100% Eco-friendly" and were willing to pay a price premium of CAN\$1.11 (+7%) when buying a wine with an average value of CAN\$15.53. In contrast, bottles without eco-logo generated a price discount of CAN\$1.10 (-7%), while organic and biodynamic were relatively neutral to the average price. In addition, 78% of Canadian respondents stated that they would realistically buy the Cabernet Sauvignon wine bottle, which had higher interest when eco-logo was not present, but also with "100% eco-friendly" claim. Again, "organic" and "biodynamic" affected negatively the wine purchase (figure 2).

This research suggests that Canadian consumers do not have an interest or value bottles carrying “organic” and “biodynamic” claims. Wine is associated with taste and pleasure in consumer’s mind, but organic is associated with bad taste and therefore less pleasure (Olsen et al., 2006). In addition, Biodynamic wines are not seen as a “good value for money”, “genuine taste” and “to share with friends” (Siriex and Remaud, 2010). In addition, in the wine sector, the hedonic aspect of consumption has been found to have a greater influence on the purchase decision than the utilitarian aspect (Edwards, 1990). All wines are considered as “natural”, so the “organic” or “biodynamic” mention seems not to be a strong element of differentiation as it is for other product categories (Lockshin, 2007).

Results suggest that Canadian respondents were willing to pay a marginal price premium for wines with “100% eco-friendly” claim, although they had relatively low interest in purchasing it compared with conventional (without logo). The fact that the respondents valued the claim “100% eco-environmental friendly”, a claim that is not currently defined with standard specifications, indicates that is easier to understand and is more meaningful and appealing to consumers than “organic” or “biodynamic”.



**Figure 2: Closure and eco-label logo levels relative utility and marginal WTP.**



The effect of closure on likelihood of buying (in average 61%) was significantly increased by ~6% for wines sealed with natural corks. This marginal positive effect represents an advantage of wine sealed with natural corks over wines sealed with screw caps and synthetic closures, which displayed a negative impact of 2.5% and 2.0%, respectively. In addition, the Napa Valley Cabernet Sauvignon with an average price of CAN\$15.53, enjoyed a price premium of CAN\$0.99 (+6.3%) if sealed with natural corks and a discount of CAN\$0.70 (-4.5%) and CAN\$0.30 (-1.9%), when sealed with screw cap and synthetic closures, respectively. In addition, 78% of Canadian respondents stated that they would realistically buy the Cabernet Sauvignon, which had marginal positive utility when sealed with natural cork by increasing the purchase by ~6% compared to the synthetic and screw cap closures, which negatively affected the purchase (figure 6).

These findings seem to show that Canadian consumers still express some hesitation towards alternative closures such as screw caps and synthetic closures. These results agree with other studies showing that North American consumer's preferred natural cork to synthetic cork and screw caps, which had a negative impact on purchase intent (Chaney, 2000; Reidick, 2003; Barber et al., 2006; Barber and Almanza, 2006; Marin et al., 2007). As it was found in the literature, cork-sealed wine in U.S. brands displayed a US\$2.04 (Mueller and Szolnoki, 2010), US\$1.14 (A.C. Nielsen, 2010) and US\$1 to US\$1.20 (Wine Intelligence, 2008) premium price over brands finished with alternative closures. A study conducted in the U.K. also concluded that natural cork added a £0.10 (CAN\$0.16) to £0.30 (CAN\$0.30) to the expected value of the product (Wine Intelligence, 2008). Lockshin et al. (2009) found that the implied difference between screw caps vs cork was ~A\$0.80. These findings confirm that countries such as Australia and U.K. where consumers have a longer history of synthetic and screw caps use, were much less influenced by negative connotations of alternative closures. In addition, consumers were expected to pay significantly less for wines sealed under synthetic closures and screw cap, indicating that closure type impacts in the expected price both directly and indirectly through consumer perception of quality (Marin et al., 2007b).

While adding a natural cork at constant price would increase 6% the likelihood of wine being chosen (i.e. more volume sold). The wine producer could also consider raising the price by CAN\$0.99. Thus wine sealed with natural corks enjoys a pricing advantage of

CAN\$1.69 and CAN\$1.29 per bottle when compared with the same bottle sealed with screw caps and synthetic closures.

The closure effect was quite similar across the three types of eco-logo. Surprisingly, the most important difference was observed in bottles without eco-logo, which confirms that Ontario and Québec respondents didn't have any special closure requirement for wines carrying environmentally friendly claims. These results seem to indicate that closure preference was related to the aesthetics and to the quality/status quo image that natural cork still possess in the minds of consumers, more than with the environmental aspect related to cork. Thus, the results suggest that closures and eco-label claims do not have a combined utility to Canadian wine consumers by signaling higher "environmental friendliness" who could be influencing their choice of wines. This situation may be the result of the respondent's low interest in purchasing eco-labeled wines. However, the lowest interest and price difference between natural corks and synthetic and screw caps was observed in bottles with "100% Eco-friendly" claim, which was the only eco-logo displaying a marginally positive interest of respondents and generated a price premium. This finding may be related to respondent's lack of knowledge about "green" credentials of different closures. In this study, only 16% and 26% of Ontario and Québec respondents agreed with the statement "I would describe myself as knowledgeable about green credentials of different wine closures". This situation may have influenced the respondents' WTP and purchase choice in this study. According to Wine Intelligence, a research commissioned by APCOR of the 1,500 British wine drinkers surveyed, 25% believe that aluminum screw caps are more environmentally friendly, and 34% favored screw caps, while 32% preferred natural corks. 4% opted for plastic stoppers. However, when they were informed about "environmental, social and cultural" credentials of different closures nearly three in five said they would buy more wine sealed with natural cork (APCOR, 2010).

Canadians are amongst the most environmentally conscious people in the world; however, those who are wine drinkers have a low to neutral interest in environmental friendly/eco-labeled wines. Although respondents in both provinces marginally valued a bottle representing a Napa Valley Cabernet Sauvignon carrying environmental friendly claims in particular the "100% Eco-friendly" claim, they displayed lower interest in purchase it compared to the same wine without eco-logo. On the contrary, consumers

were most likely to buy and would pay more for wines sealed with natural corks compared to the same bottle sealed with synthetic or screw cap closures. However, closures and eco-label claims did not have a combined utility to respondents’.

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