# The interactions among product quality, product origin, product knowledge, and knowledge of the origin: An experimental investigation of the factors that influence consumer attitudes 

Extended Abstract

## Background

There are extensive empirical evidence to suggest that consumers' attitude towards a product, including their evaluations of product quality, are influenced by a host of factors aside of the product's intrinsic and objective attributes. Specifically related to wine marketing, researchers have categorized two groups of factors that influence consumer attitudes. The first group is functional attributes that are intrinsic to the product, including, for example, cultivation variety, production methods, etc. The second group is more extrinsic to the product itself. These extrinsic factors might include, for example, market differentiation and branding strategies by the product producers (Vrontis, Thrassou, \& Czinkota, 2011). As a part of the branding effects, the country of origin (COO) effect plays a role as the heuristic cue for product quality. However, this positive attitude toward the product origin may not have the same effect on all consumers. Prior studies have shown that origin effect can be moderated by a number of other factors.

This study examines some of the moderating variables that can potentially change consumer attitudes toward wine products that are produced in various parts of the world. We have chosen wine from France, Canada, and China in this study. We chose these countries to provide dramatic contrasts for country of origin effects. France has been widely considered as holding the golden standards for wine products. Chinese wine consumers often purchase French wine for the purpose of impressing their friends (Liu \& Murphy, 2007). Canada produces many brands of wine in reasonable good quality, but does not seem to enjoy the benefits of COO effects. New World wine still has to catch up with the Old World in terms of regional reputation (Schamel, 2006). Canada is, however, the home country for the consumer group in our primary study context. Home country advantage may play an interesting role in the interaction of the factors. China, as an emerging market, represents a large quantity of output, and potentially a large market for consumption. Chinese wine faces a potentially negative COO effect, however, partially because many products from that country have been typically considered as low cost and of poor quality.

The lack of favorable pre-existing COO effect can be a major challenge for Chinese wine producers who intend to maintain domestic market share and to capture international market share. Californian wine producers have had some success in overcoming such challenges (Schamel, 2006). Other producers were still struggling with these challenges, including many wine producers from Taxes (Gultek, 2003) and Mexico (Olsen, Nowak, \& Clarke, 2002), for example. Informative and educational marketing strategies were identified as possible solutions (Camillo, 2012). The result of this study would provide some insights as to what type of informational and educational programs are effective for improving wine marketing strategies.

## Hypotheses

Figure 1: Presumed \& Experiential Quality, and their Influence on Product Attitude


H1: Country of origin image is positively associated by presumed product quality, which is positively associated with product attitudes.
The COO effect has been widely documented as one of the important marketing and branding strategy. Younger wine consumers, who can be characterised as generally lack of subject knowledge, rely heavily on extrinsic cues, such as labelling, to aide their decisions (Chrysochou, Krystallis, Mocanu, \& Lewis, 2012). Consumers often use regional brand cues to assess and evaluate wine labels (Bruwer \& Johnson, 2010). In this study, the positive COO effect is considered as the baseline for other subsequent hypotheses.

H2: Knowledge of the country of product origin amplifies COO effect.
Evidence has shown that when consumers are provided with regional information on a wine label, they would feel more confidence in the quality of the product (Bruwer \& Johnson, 2010). When consumers' knowledge increases, they develop greater understandings of the origin of the wine. Such understanding of the product origin would have positive impact on the consumers' wine decision-making processes (Famularo, Bruwer, \& Li, 2010). Accordingly, knowledge of the product origin has a moderating effect. More specifically, when consumers are provided more information and knowledge about the origin of the product, the image of the origin becomes a more dominant information cue in the product quality evaluation. COO effect becomes stronger.

## H3: Product knowledge reduces COO effect.

Knowledge and experience about wine are important factors influencing how consumers experience wine products (Brunner \& Siegrist, 2011). In addition to this direct effect, we anticipate product experience reduces the COO effect. Inexperienced wine consumers have little prior knowledge on wine. During the purchase decision making process, COO effect is one of the available cues to help them in reducing risks. As a wine consumer becomes more experienced,
they would gain more knowledge, and perhaps more personal preference of tastes. The aide of COO as a risk deduction strategy would become less critical. Prior studies, such as that by Bruwer and Buller (2012), have revealed that when wine consumers master higher level of objective knowledge about wine, they increasingly rely upon intrinsic cues - taste, variety, and price - as the more important buying cues. COO effect still matters, but in relative terms, compared to inexperienced wine consumers, this extrinsic cue plays a lesser role in the mind of knowledgeable wine consumers. This phenomenon would have particularly important practical implications for producers without glowing positive COO effects, and wanting to compete based on tastes.

H4: Experiential evaluation of product quality is positively associated with product attitudes. It should be clarified that when a consumer form product attitude based on COO effect, they implicitly form product quality assessment based on presumptions. This type of presumed quality assumptions is conceptually similar to advertising-induced quality assumptions. Evaluating product quality based on actual personal experience is very different. Product trials produce direct experience. This direct experience generates stronger attitudes about the product and a higher level of attitude-behaviour consistency compared to indirect experience of the product via exposure to advertising (Smith \& Swinyard, 1983), on in the context of this study, inferences based on COO effects. Therefore, we want to establish an alternative route of attitude formation that a positive evaluation of product quality based on product trial has positive effect on product attitude.

H5: Product knowledge enhances the relationship between experiential evaluation and product attitudes.
Prior studies have revealed that inexperienced wine consumers, having limited product knowledge, are likely to rely on extrinsic cues, such as COO, to form presumed product attitude. Scattered evidence seems to suggest experienced wine consumers, with higher level of product knowledge, would instead rely on intrinsic attributes such as grape variety and taste. In addition, as their product knowledge increases, they are probably more confident about personal experience and subsequent evaluation on product quality. Hence the relationship between experiential evaluation of product quality and product attitude would be stronger among the more knowledgeable consumers.

## Methods/Procedures

Data were collected through a number of experiments that consider both within-subject and between-subject factors. Subjects in this report are 166 students enrolled in marketing introductory courses in a major Western Canadian university. Within-subject conditions include evaluating product attitudes based on 1) with label, no trial, 2) with trial, no label, and 3) with label, with trial.

Step 1: Presumed product quality and product attitudes (Label only, no trial). The researcher showed the participants wine from three different countries - Canada, France, and China. The participants filled out a questionnaire about their attitudes towards the three products (good/bad, like/dislike, wiliness to pay, etc).

Step 2: Experience and product attitudes (No label, trial only). The participants received a small portion (approximately one ounce) of each of the three brands of wine, only identified as A, B, and C. They were not told product origin. They were asked to record their experience and attitudes.

Step 3: Country image/product knowledge. The participants were asked to answer several general questions, and express their attitudes toward the origins of the products and product knowledge. This step is also designed to occupy the participants' minds, and clear/reduce their memories of their previous answers.

Step 4: Brand/experience reconciliation (Label and trial). The researcher revealed the identities of the three brands (Wine in Glass A is made in France, B in Canada, etc). The participants were asked to re-examine their experience and attitude towards the three products in a new questionnaire.

## Preliminary Findings

Quality. We first compared the participants' quality assessment on the three different wines using ANOVA (see Figure 2). Chi-square mean comparisons used the Canadian scores as the benchmarks. Based on pure perception, the French wine's quality was significantly higher than the Canadian ( $\mathrm{t}=9.06, \mathrm{p}<0.001$ ). There was no statistically significant difference between the Canadian and the Chinese ( $\mathrm{t}=0.84, \mathrm{p}=0.40$ ). Taste-wise, there was no statistically significant difference between the Canadian and the French ( $\mathrm{t}=0.27, \mathrm{p}=0.78$ ) during blind taste. The Chinese wine was judged to have significantly lower quality than the Canadian ( $\mathrm{t}=-2.40, \mathrm{p}=0.18$ ). Once the labels were revealed, the French wine scored slightly higher on combined quality than the Canadian, but the difference was not significant ( $\mathrm{t}=-0.57, \mathrm{p}=0.57$ ). The Chines wine scored significantly lower in combined assessment ( $\mathrm{t}=-6.088, \mathrm{p}<0.001$ ). It appears that the French wine enjoyed a high level of presumed quality assumption. Even though the participants were aware that its actual tasted quality was the same, they still evaluate it to have high overall quality. In comparison, the Chinese wine did not enjoy a positive brand image. When the participants realized that it actually tasted not as well, its overall quality assessment was deemed significantly lower.

Figure 2: Quality Assessments Scores

$\square$ Canadian $\square$ French $\square$ Chinese

Purchase Intention. We also compared the participants' willingness to buy the three different wines using ANOVA (see Chart 2). Chi-square mean comparisons used the Canadian scores as the benchmarks. Based on pure perception, the participants exhibited equal purchase intentions for the Canadian and French wines $(\mathrm{t}=0.17, \mathrm{p}=0.87)$. Their purchase intention for the Chinese wine was significantly lower ( $\mathrm{t}=-2.17, \mathrm{p}=0.031$ ). The similar pattern was observed in the taste only situation. However, when brand information and taste experience were both present, the participants were significantly more likely to purchase Canadian wine than the French ( $\mathrm{t}=-2.11$, $\mathrm{p}=0.036$ ) and the Chinese ( $\mathrm{t}=-6.65, \mathrm{p}<0.001$ ). This change might be attributed to the disappointing realization that the French wine didn't taste better than the Canadian.

Figure 3: Purchase Intention Scores


Relationships. Using AMOS, we developed and analysed path models that resemble our hypothesized model. Since we used within subject variances, we used three parallel path models that are specific to the Canadian, French, and Chinese wines, respectively (see figures 4, 5, and $6)$.

Figure 4: Attitudes toward Canada and Canadian Products


As shown in Figure 4 above, in the Canadian case, experiential assessment of the product quality has a positive and statistically significant influence on overall combined product attitude ( $\beta=0.74$, $\mathrm{p}<0.001$ ), hence providing support for H 4 . Such overall combined product attitude has profound influence on purchase intentions ( $\beta=0.51, \mathrm{p}<0.001$ ) and willingness to pay. It is interesting to note that when Canadians evaluate Canadian products, their mental image of their own country and their presumed product quality do not play a significant role in the formation of overall product attitude.

Figure 5: Attitudes toward France and French Products


As shown in Figure 5 above, in the French situation, as expected, experiential assessment of the product quality has a positive and statistically significant influence on overall combined product attitude ( $\beta=0.44, \mathrm{p}=0.001$ ), hence providing support for H 4 . Such overall combined product attitude has profound influence on purchase intentions ( $\beta=0.53, \mathrm{p}<0.001$ ) and willingness to pay. It is interesting to note that when Canadians evaluate foreign products, such as a wine from France, the formation of overall product attitude is significantly influenced by their presumed product quality ( $\beta=0.35, \mathrm{p}<0.001$ ); and that presumed product quality was in turn influenced by their mental image of that country ( $\beta=0.31, \mathrm{p}<0.001$ ). This only partially supports our H1. The contextual nature of COO effects is a new observation.

Figure 6: Attitudes toward China and Chinese Products


As shown in Figure 6 above, in the Chinese situation, as expected, experiential assessment of the product quality has a positive and statistically significant influence on overall combined product attitude ( $\beta=0.60, \mathrm{p}<0.001$ ), hence providing support for $H 4$. Such overall combined product attitude has profound influence on purchase intentions ( $\beta=0.55, \mathrm{p}<0.001$ ). Like the French wine, the Chinese wine is also an unfamiliar foreign product to our Canadian participants. As expected, the formation of overall product attitude is significantly influenced by their presumed product quality ( $\beta=0.25, \mathrm{p}<0.001$ ); and that presumed product quality was in turn influenced by their mental image of that country ( $\beta=0.26, \mathrm{p}<0.001$ ), providing further partially support to the contextual COO effects in the evaluation of foreign products.

As a work in progress, further data analysis is on-going at the time when this abstract is submitted.

## Implications

This study examines two alternative routes of product attitude formation - one is based on extrinsic cues, such as advertising messages and COO effects in this study; the other is based on intrinsic cues, aided by the actual product trial. This study also examined the moderating effects of informative and educational marketing efforts that may have potentially different results in helping consumers in formulating their product assessments and attitudes. The findings would provide invaluable insights as to which type of information works more effectively, for what objectives.

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