Perception of wine labels by Hong Kong Chinese consumers

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Abstract

Despite Hong Kong's growing wine consumption and the abundance of retail brands available there, the demanding choice task faced by its wine consumers, who are more subject to a mix of Chinese and Western cultural influences than consumers in other South Asian countries, has not been studied until now. This exploratory study aims to delve into the importance of wine label attributes for Hong Kong Chinese wine consumers, and to shed light on the ways in which their perceptions affect their choice of wine. Employing an online survey, the results suggest that Hong Kong Chinese wine consumers look for the top three most searched attributes: wine origin, grape variety, and food and wine pairing. A simple means differences test indicated that a traditional label design is favored over modern and contemporary wine labels, and that yellow is the most preferred color. However, a data-driven segmentation analysis reveals that about 95% of young Hong Kong Chinese wine consumers prefer "elegant contemporary" labels with red as the dominant color. These findings could be useful for wineries entering this market and for wine label designers who wish to better understand how Hong Kong wine consumers assess alternatives when choosing a bottle of wine.
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1. Introduction

Wine consumption and culture were established over the course of many centuries, and date back to ancient times, when wine spread from its places of origin to different parts of the world through commerce and wars. Recently, with changes in the global economic arena that have led to the globalization of wine, its consumption has been revolutionized. The global economic picture is also being reshaped, with a shift in economic power from mature markets to emerging ones. The growing magnitude of the economies of emerging markets, such as that of China, has encouraged developed nations to

seek out their share. As measured by the total GDP, by 2013 China was already the world's second largest economy after the USA (Knox et al., 2014). It is estimated that BRICS (Brazil, Russia, India, China, and South Africa) will be one of the major players in the world economy in the next 30 years. The cumulative GDP of BRICS will overtake that of the USA by 2018, and is expected to surpass that of the G7 countries by 2030 (Basu et al., 2013).

Over the last several years, the global wine industry has faced a number of challenges, among them global recession, a rise in health consciousness regarding the consumption of alcoholic drinks, concerns about the sustainability of conventional grape growing, changes in global trade, and regulations that limit its growth potential. While wine consumption across Europe is declining (Dewald, 2003), between 2011 and 2016 world red wine consumption is expected to grow by 9.1%, driven in particular by China, while white wine consumption should increase by only 2.75% over the same period (Vinexpo,

2013). Other countries whose wine consumption is expected to grow are the USA and Russia. The Russian wine sector is growing and has significant growth potential driven by a new generation of young wine drinkers with high levels of disposable income. Between 2012 and 2013, Russia's wine imports increased by 16% (USDA, 2014), whereas by 2016 Americans are expected to drink 18% more red wine than they did in 2012.

Lifestyle changes, coupled with the 2008 duty exemption on wine granted by the Hong Kong government, which was aimed at facilitating Hong Kong's transformation as a wine hub, led to an increase of 54% in wine consumption from 2008 to 2012. Between 2013 and 2017, it should grow by a further 17.4% (Vinexpo, 2014). With an average annual per capita consumption of 5.4 l in 2012, Hong Kong ranks first in Asian's per capita consumption, before Japan (3 l) and China (1.3 l). With a provisional population estimate of 7.184 million by mid-2013 (Census and Statistics Department, 2015), Hong Kong is the third largest wine-consuming market in Asia, following China and Japan. Hong Kong inhabitants and their many tourist guests spent HK$3.4 billion on wine (US$440 million) in 2012 (Vinexpo, 2014).

Hong Kong, as a former British colony, is more exposed to a mix of Chinese and Western cultural influences than other South Asian countries, and a large number of Westerners reside there. In fact, Hong Kong leads the Globalization Index, ranking first among the 60 largest economies in the world for three consecutive years (2010, 2011, 2012), according to Ernst and Young's Annual Globalization Report (2012). Notably, the Index is based on five main pillars, including openness to trade, exchange of technology and ideas, labor movements, and cultural integration. Nonetheless, the majority of the population is still of Chinese origin, with strong roots in Chinese culture, despite exposure to Western lifestyle and culture. The population is 93% Chinese, about 1% European, 0.2% American, 0.2% Australian, and 5.6% other Asian (Census and Statistics Department, 2015).

While Hong Kong Chinese consumers are very open to Western and non-Chinese cultures, the wine market is a complex one. With the many accreditations on the origin side, it would be unlikely for an average Hong Kong Chinese wine consumer to have the necessary knowledge to choose a bottle of wine unless he or she has had some wine education. Yet, despite growing appreciation for wine in Hong Kong, the percentage of consumers who are educated about wine is not large, partly because the wine drinking tradition in Hong Kong is still in its infancy. For the average consumer, it is difficult to read and interpret the cues presented on a bottle of wine and come to a final purchasing decision. While Hong Kong has a Chinese cultural background, we assume that its exposure to Western culture affects the wine evaluation process of consumers, the attributes they consider most important, and the types of information they are looking for on the label.

Most of the studies on wine consumption and purchasing behavior were conducted in European wine markets such as France and Italy, where wine consumption is part of the consumer's lifestyle, or in the US. With the economic shift toward Asian countries, several studies were carried out in large Chinese cities such as Beijing (Yu et al., 2009) and Shanghai (Balestrini and Gamble, 2006; Hu et al., 2008).

Despite the overloading of the Hong Kong market with a multitude of wines of all origins, until now there has been no research on Hong Kong consumer's wine evaluation process and decision making. Apparently, due to its currently small market size, only limited studies have been examining wine consumption in Hong Kong (e.g., Dewald, 2003; Pettigrew and Charters, 2010).

The purpose of this study is to explore how Hong Kong Chinese consumers perceive the information on wine labels and to examine their preferences for label color and design, including preferences toward Old vs. New World labels, and other wine attributes when choosing a bottle of wine. It is crucial for wine marketing practitioners and label designers to understand which attributes Hong Kong Chinese consumers consider before purchasing wine and to gain insight into how they perceive the information presented on wine labels.

2. Review of the literature

Contemporary wine consumers are faced with a puzzling assortment of brands and a wide range of information, yet in most cases it is not possible to taste the wine prior to purchase. Therefore, given their lack of expertise, consumers are obliged to make their decisions based on packaging and the information available on the label. Labels presents a large amount of information that includes both intrinsic and extrinsic cues (Thomas and Pickering, 2003; Lockshin et al., 2006; Goodman et al., 2006) that the consumer responds to and believes to represent the truth regarding origin, grape variety, and so on when making purchase decisions (Tootelian and Ross, 2000).

Numerous studies have been conducted on the impact of wine cues on consumers' wine purchasing behavior (e.g., Goodman et al., 2006; Olsen et al., 2003; Sherman and Tuten, 2011). Based on data collected in Germany, Mueller and Szolnoki (2010) reported that packaging and brand evaluation were the strongest drivers for consumers' wine preferences and that their purchase intent was mainly influenced by informed liking and price evaluation. In Australia, it was demonstrated that when faced with a wide selection of wines within a limited time, consumers use implicit logical sequences of cues, i.e., they enter into a "search" for information to uncover the hidden "experience" and "credence" aspects to reduce any perceived purchasing risk (Mueller et al., 2009).

Sherman and Tuten (2011) explored the influence of two label variables (design genre and brand name) on the perception of wine and the wine choice of US respondents. The results showed that design and brand name only mattered during gift purchase, and that consumers prefer traditional label designs and names over novel ones for gifts. For general consumption, studies indicated that New World wines gained a remarkable share of the European market (Steiner, 2004). Several studies conducted in Mainland China reveal that Chinese consumers do not perceive wine as a "drink" as do

consumers in many European countries, but rather as something to be purchased and consumed on social occasions (Yu et al., 2009). Liu and Murphy (2007) found that in China, French wines were considered of higher quality and were better known than Australian wines.

However, these studies may not be applicable to mixed cultures such as that of Hong Kong. Only limited knowledge has been accumulated on wine consumption in Hong Kong, including Dewald's (2003) findings that wine is consumed mainly in restaurants and is usually drunk during a meal. In addition, Pettigrew and Charters (2010) reported that the reason for wine drinking in Hong Kong was its image, which conveyed desirable symbolic meanings such as intellectuality, success, affluence, and sophistication.

2.1. Wine perception and evaluation

2.1.1. Perception of wine labeling design

Several studies have been conducted on the effect of wine labeling design and confirmed that specific visual codes are associated with different product categories. Celhay and Passebois (2011) claim that visual codes recorded and stored in our memory become part of "cognitive categories" that are ranked according to the degree of perceived typicality that represents a given category in our minds. Barber et al., 2006 argued that for customers intimidated by the number of brands, label designs, information, and bottle packaging available, the label design and information provided on it can offer reassurance that the wine will provide value for money in terms of performance and quality. Two important classifications of wine label designs are "traditional" and "modern/contemporary" (Batt and Dean, 2000). Elliot and Barth (2012) noted that in the US, modern, innovative, and distinctive labels are more attractive to the younger market than to the older market, which prefers more traditional styles, whereas French consumers, whether young or old, novice or expert, still prefer wine with traditional labels in order to reduce perceived risk (Celhay and Trinquecoste, 2008). No study has yet been conducted on Hong Kong wine consumers' preferences in this regard. Since the front label is the first line of communication to entice the consumer (Charters et al.,1999), the efforts to design a good wine label are never a waste, in light of the reliance of consumers on the specific aspects of label design, notably imagery, and layout to assess the quality of the bottle (Elliot and Barth, 2012).

Yet, most wine labels that are exported and sold in Hong Kong are designed by foreign people with limited understanding of the local culture. Given the lack of adequate research on the perceptions of Chinese consumers in general, and Hong Kong Chinese in particular, of label design, including text, wine label designers are unable to target these consumers' tastes and preferences. This study strives to bridge this gap of knowledge by conducting a study in Hong Kong.

2.1.2. Perception of country of origin

Country of origin (COO) is considered an extrinsic cue that relates to the product itself (Quester and Smart, 1998). The

importance of the COO effect is well documented (e.g., Batt and Dean, 2000). In particular, COO can be an indicator of quality when it is difficult to assess by other objective means (Elliot and Cameron, 1994). The importance of appellation information in the minds of consumers compared to geographic entities such as county or state has also been addressed. In French wines, visual codes of the wines' specific region are visible and perceived by consumers as typical of the regions (Celhay and Passebois, 2011). Atkin and Johnson (2010) have explored whether consumers utilize appellation information to the same extent that they use information relating to larger geopolitical regions, such as state or country. They found that simpler place-of-origin information based on larger geographical areas is more heavily utilized by consumers than appellation information. Studies on Chinese wine consumers showed that they attach high importance to COO when making purchasing decisions. The studies of Balestrini and Gamble (2006) and Hu et al. (2008) on the importance of COO for wine buyers in supermarkets and malls, respectively, in Shanghai indicated that COO information was a significant factor in wine evaluation and a significantly more important cue for quality than price (which was also found as a sign of quality). Li et al. (2006) also indicated that COO is the most important factor in their wine evaluation when a single-cue approach is applied. The applicability of these findings to the case of Hong Kong cannot be determined, since Hong Kong consumers are more exposed to Western labels and have more wine knowledge than most consumers in Mainland China. The current research aims to investigate this issue.

2.1.3. Perception of color

Color is considered an extrinsic cue that can be altered without changing the product in terms of price, packaging, or brand name (Quester and Smart, 1998). Numerous studies have explored the effect of colors on consumers' feelings, physiological responses, perceptions, attitudes, and choice behavior. Madden et al. (2000) emphasized that color is an integral part of products, packaging, and logos. Colors can serve as an effective tool in creating and sustaining brand and corporate images in the minds of customers if they are used wisely and effectively in different cultural contexts, as it has been well established that they bear different meanings in different cultures. It has been recognized that global marketing of standardized products in terms of color design would be a mistake, and an investigation of how colors and their combinations are perceived in the target market is necessary to avoid failure (Madden et al., 2000).

Several studies have addressed the effects of colors in South Asian culture. Kommonen (2011) found that a prudent approach to local meanings of color is essential. Yellow, for example, represents gold and thus richness, while green represents vital force, but in some situations may indicate unfaithfulness of a woman to her husband. Red is related to happiness, "luck," and celebration and not, as might be assumed, communism. Liu and Murphy (2007) noted that in China white is an "unlucky" color, associated with funerals. In Hong Kong, Gunnerod (1991) found that with regard to

flowers, consumers prefers shades of red, pink, yellow, and white, while Madden et al. (2000) found that purple is considered close to brown, and, since brown is close to black, is associated with sadness.

Nevertheless, color preference does not exist in a vacuum; a number of studies suggest that consumers may prefer certain colors over others in different product categories. A study conducted by Pantone (1992) found that black is the color worn most for dressy occasions. Blue, gray, red, white, and black are the preferred colors for automobiles, while beige is favored for carpeting (Mundell, 1993).

Studies on the impact of the colors of wine labels on consumers' choices have also been conducted. Boudreaux and Palmer (2007) studied the effects of three elements of wine label design, including color, on US consumers' perceptions of brand personality. They found that color had significant effects on most dependent variables (e.g., successful, cheerful, excitement, daring, spirited, etc.). Nevertheless, no such study has been conducted in Hong Kong. Considering Hong Kong's peculiarities compared to other South Asian markets and the rapid growth in its wine consumption, a study investigating wine label color preferences and perceptions is required.

3. Methodology

The methodology used in this paper consisted of two stages. The first included interviews with actual wine buyers in order to expose in real time the factors and attributes that influence their decision-making processes. The second stage was a structured questionnaire that employed the attributes exposed in the first stage in order to investigate their importance when choosing a wine and shed light on customers' preferences regarding wine label design and color.

3.1. Target population

The target population of this study consisted of Hong Kong citizens of Chinese origin, of legal drinking age (18 years old or above), who had purchased at least one bottle of wine in the past three months.

For the first stage of this research, we obtained permission to interview customers in the wine section of a leading supermarket chain store with a large number of branches in all parts of Hong Kong. This stage included a face-to-face interview intended to identify patterns, themes, and features of a wider perspective that would be employed in the second stage. Twenty respondents were interviewed as soon as they made a purchase of at least one bottle of wine.

The interviews were conducted on two consecutive days over the weekend, a Saturday afternoon and a Sunday morning, when a high rate of purchase was expected. The chosen branches are located in two large malls in residential districts, one on Festival Walk, an upmarket major landmark in Kowloon Tong, and one in East Point City, a large private housing estate and shopping mall in Tseung Kwan O. The subjects were asked about the reasons they chose the particular wine they had purchased (e.g., price, past experience, recommended by family or friends, perceived quality, brand name, vintage, country of origin, and promotion). The second question concerned the information they were looking for on the label (brand name, vintage year, varietal, château image, and so on). It appears that respondents consider the information on the label very useful.

The second stage was a structured questionnaire that was designed based on the information gathered in the first stage. This questionnaire was conducted through an online survey. The questionnaire was translated from English to Chinese and vice versa to ensure accuracy. Next, it was pre-tested using a convenience sample of 10 respondents to ensure smoothness and consistency in the questionnaire setting. It was then distributed by email to a convenience sample of 35 people, who were then requested to send it to their friends and relatives. The criterion for participation in the survey was that the respondent had bought wine in the past three months. One hundred and eighty questionnaires were distributed in early February 2013, before the Chinese New Year, and then launched online and collected from mid-May to the end of August 2013 and during January 2014. Only 136 questionnaires were valid. Of these, 118 (87%) were filled out by Hong Kong Chinese and 18 (13%) by respondents of other origins. The latter were not included in the analysis.

Respondents were asked about the importance of seven attributes (brand, grape varietal, vintage year, origin of the wine, alcohol content, label color, and label design) and their preferences for wine label design and color. The seven attributes selected for the online survey were drawn from the face-to-face interviews conducted in the first stage and from the literature, including a study conducted in China (Yu et al., 2009).

The designs chosen for the wine labels in this study were similar to those used by Boudreaux and Palmer (2007) and reflected the same styles. Accordingly, five combinations of wine label designs in the form of pictures were shown to respondents: traditional with châteaux, modern classic, modern vibrant, modern contemporary, and elegant contemporary (see Appendix A for illustrations). Respondents were asked to rate their preferences for each label design on a five-point Likert-type scale. In order to avoid bias as much as possible, respondents were asked to ignore all other information and focus only on the label design. In addition, four labels, in the form of pictures, were selected, each with a single dominant color, including red, yellow, black, and white (see Appendix B for illustration). The colors chosen were ranked among the top five liking ratings in Hong Kong (Madden et al., 2000). Respondents were asked to rate their label color preferences on a Likert-type scale. Again, respondents were asked to refer to the color as the sole attribute for ranking. The data was analyzed using Excel© spreadsheet and IBM SPSS. Segmentation was performed applying Latent Gold 4.0 software.

4. Results and discussion

Table 1 provides a socio-demographic profile of the Hong Kong Chinese respondents who participated in the survey. Of

Table 1
Demographic of Hong Kong Chinese respondents ($n = 118$).

	Percent
Gender	
Female	51
Male	49
Age	
18–34	46
35–44	30
Over 44	24
Marital status	
Married	43
Unmarried	57
Education	
Secondary school	31
Academic	69
Employment	
Financial service industry	10
Tourism industry	2
Trading and logistics industry	9
Professional services or manufacturing	31
Others	41
Unemployed	7

Table 2
Importance of attributes ($n = 118$).

	Mean	Std. Deviation	Similar groups[*]		
Origin of the wine	3.07	0.770	I		
Grape variety	2.77	0.937		I	
Brand name	2.53	0.864			I
Food and wine pairing	2.52	0.884			I
Vintage year	2.45	0.812			I
Medal/Award	2.12	0.879				I
Alcohol content	1.97	0.891				I

*$p < 0.05$.

the 118 valid responses from Hong Kong Chinese, women represent 51% ($n = 60$) of the sample and men 49% ($n = 58$). Most of the respondents were from the age group of 18–34 years (46%), with the next important age group 35–44 years (30%), and finally 45 years and older (24%). Sixty-nine percent of the respondents had academic degrees and 31% had secondary school diplomas.

4.1. Importance of attributes

Respondents were asked to indicate the importance of seven attributes in their wine purchase, on a Likert-type scale, from "extremely important" to "not at all important," by indicating one score for each attribute. The results, depicted in Table 2, show that the mean scores of the top three attributes of importance to Hong Kong Chinese respondents were "origin of wine" (mean = 3.07), "grape variety" (mean = 2.77), and "brand name" (mean = 2.53), followed by "food and wine pairing" (mean = 2.52). "Origin of wine" was significantly different from "grape variety" ($p < 0.05$). "Grape variety" was significantly different from "brand name". However "brand

name," "food and wine pairing," and "vintage year" were not significantly different from each other. The results demonstrate that most of the respondents consider "origin of wine" more important than the other attributes. In comparison, Goodman et al. (2008) found that "origin of wine" was ranked second in France, third in Austria, China, Italy, and the UK, and fourth in Australia, Germany, Taiwan, and the US. "Alcohol content" is the least important attribute for respondents. These results are in line with findings from most of the countries studied in Goodman et al. (2008) (Austria, China, France, Germany, Israel, New Zealand, Taiwan, the UK, and the USA).

Regarding "grape variety," while ranked second in this study, it was ranked first in Austria, second in New Zealand, third in the US and Australia, fourth in France, fifth in Germany and Israel, sixth in Italy and Brazil, and seventh in Taiwan, China, and the UK (Goodman et al., 2008). Finally, "matching with food" (equivalent to "food and wine pairing"), which was ranked third in the current study, was ranked first in France, second in Italy and Israel, third in Brazil and Germany, and fourth in Austria. However, it was ranked low in New Zealand, Taiwan, the UK, and the USA, and in China it was rated last in importance. This contrasting finding between China and Hong Kong regarding "matching with food" can be explained by the fact that while Chinese consumers do not usually drink wine with food, so that "matching with food" is of little importance to them, Hong Kong is developing a reputation of being a "gourmet paradise," where wine and food are closely associated with one another.

"Brand name" was also found to rank third in importance, a result that differs from findings in Australia, where brand was found to be one of the strongest drivers for informed liking (Mueller and Szolnoki, 2010), and where brand name acts as a surrogate for a number of attributes, including quality (Lockshin et al., 2000). This result also differs from findings in China and Brazil, where "brand name" was found to be of great importance when choosing a bottle of wine (Goodman et al., 2007, 2008).

In sum, the differences between our results and those collected from the Chinese population may be due largely to the fact that the latter studies were conducted in Mainland China, while this research focused on Hong Kong Chinese, who are more exposed to Western culture than their mainland counterparts.

4.2. Label design

Significant differences in terms of customer preference for label design ($p < 0.001$) were found. The results, summarized in Fig. 1, show that the label design "traditional with château" has the highest and most significant mean (4.36), with a standard deviation of 1.09. Preferences for the other label designs were as follows: "modern classic" (mean = 3.28), "modern vibrant" (mean = 2.69), and "elegant contemporary" (mean = 2.65). These findings are in accordance with findings in the USA and France, where traditional label designs, regardless of brand names, had the highest mean scores and an advantage over modern ones (Boudreaux and Palmer, 2007;
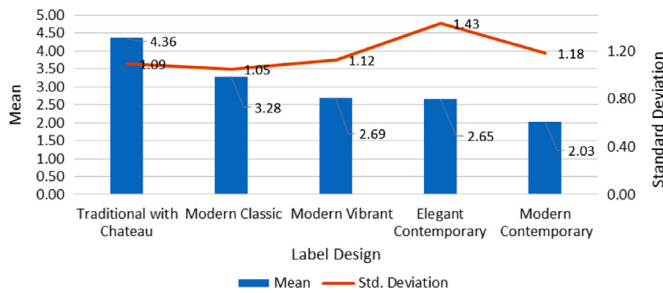
Fig. 1. Label design rated by Hong Kong Chinese respondents ($n=118$). Blue represents the rating's mean; orange represents standard deviations.

Sherman and Tuten, 2011). These results are also in line with a study conducted in France that involved Bordeaux wine labels with different designs, but identical information (Celhay and Passebois, 2011), where respondents indicated strong preference for the most typical label.

4.3. Label color

Color culture in the Chinese context is complex. For the Chinese, colors express cultural values, beliefs, and emotions. In terms of label color dominance, the participants in this study demonstrate a clear preference for the color yellow (Table 3), significantly different from the other label colors ($p < 0.001$). In China, the color yellow has been found to be associated with optimism, hope, and happiness (Akcay et al., 2011). Surprisingly, labels in which the colors black and white dominate rank second and third (no significant difference) in the list of preferences, while labels in which the color red is dominant rank last on the preferred list (mean$=2.15$, SD$=1.20$) and their rank is significantly different from that of the black or white labels ($p=0.05$), despite the fact that red is associated with passion, energy, and love in China (Akcay et al., 2011). These findings are in partial contradiction to the usual Chinese color preferences (Akcay et al., 2011; Kommonen, 2011; Liu and Murphy, 2007), where white is considered unlucky, red is considered lucky, and black is associated most closely with death, mystery, and fear. These findings also contradict those of Madden et al. (2000), who conducted a study of color meanings and preferences in different cultures, including Hong Kong, where white was the first on the list of preferences, followed by blue, black, red, and then yellow. In light of these surprising findings, we conducted data-driven segmentation analysis, discussed in the next Section 4.4, in an effort to resolve this issue.

4.4. Segmentation

A-priori segmentation based on gender showed no significant differences regarding the rating of wine attributes. Concerning label design, women rate the "elegant contemporary" label higher ($p < 0.05$) and the "modern vibrant" design lower than men do ($p < 0.05$). In terms of age groups, respondents 45 years old and older tend to prefer "modern classic" label designs significantly more than younger

Table 3
Importance of color ($n=118$).

	Mean	Std. Dev.	Similar groups[*]		
Yellow color dominant	2.85	1.03	I		
Black color dominant	2.49	1.05		I	
White color dominant	2.48	1.10		I	
Red color dominant	2.15	1.20			I

[*]$p < 0.05$.

Table 4
Latent class cluster parameters.

Features	Cluster 1	Cluster 2	Cluster 3	Cluster 4	p-Value
"Traditional châteaux" label	**3.958**	0.066	−1.904	−2.120	0.001
"Modern classic" label	0.206	**0.667**	−1.516	**0.644**	0.000
"Modern vibrant" label	−0.298	0.105	−0.374	**0.567**	0.024
"Modern contemporary" label	−0.602	−0.098	0.262	**0.438**	0.011
"Elegant contemporary" label	−0.211	−1.216	**2.317**	−0.891	0.000
Red color dominant	−2.443	**1.122**	0.852	0.470	0.004
Yellow color dominant	0.075	**0.631**	−0.036	−0.670	0.019
Black color dominant	0.282	−1.651	−0.718	**2.087**	0.000
White color dominant	**0.726**	−0.276	0.031	−0.482	0.001

respondents ($p < 0.05$). The younger generation, from 18 to 34 years old, is more inclined to prefer "modern contemporary" labels.

As Goodman (2014) noted, segmentation using attributes that had an influence on consumer choice is likely to assist wine marketers in selecting and designing their approach to a particular market. Hence, further analyses were conducted to examine whether latent clusters (segments) exist among all subjects, using Latent GOLD software, Version 4.0 (Vermunt and Magidson, 2005). Latent cluster analysis (LCA) aims to extract relatively homogeneous groups of respondents from heterogeneous data. Segmentation is then based on how well each cluster predicts the choices made based on the importance weights. The wine attributes did not contribute to discrimination among the latent clusters, but label design and label color improved the segmentation. We estimated models ranging from two to four clusters. The log likelihood function of the Bayesian Information Criterion (BIC$_{LL}$) was used to identify the best cluster model, as measured by the lowest BIC value (decreasing BIC and increasing LL indicate improving fit). The four-cluster solution had the lowest BIC and the strongest loadings on each cluster, with a limited number of cross-loadings. All eight features are significantly different between the clusters (p-values < 0.05), which implies that these attributes are important in segmenting the clusters. The four-cluster solution is presented in Table 4.

Since significant differences were observed among the clusters (Table 4), we suspected that a latent behavior existed between these clusters, and therefore respondents were

classified into different groups. Each cluster represents a different core of attributes: Cluster 1 is labeled "traditional," since its subjects mainly focus on traditional labels with châteaux. The color red is significantly ($p < 0.01$) considered negative by members of Cluster 1, while the color white is the only one considered favorable ($p < 0.01$) by them. All three of the other clusters considered red positive. Cluster 2 is labeled "modern classic," red or yellow label, Cluster 3 as "elegant contemporary," and Cluster 4 "black label," as the members of this cluster prefer black and modern labels and have a negative preference for traditional châteaux.

Cluster 1 is the largest, with 40.7% of the respondents, while Clusters 2, 3, and 4 contain 30.5%, 16.1%, and 12.7% respectively. The majority of Cluster 3 consists of young respondents (18–34 years) who prefer "elegant contemporary" labels with red as the dominant color. All other clusters contain respondents from all the age groups. Cluster 1 is interesting, as its members prefer traditional labels with châteaux and white as the dominant color. However, with the exception of age, we could not find any core of demographic characteristic that differentiated the clusters. The composition of the clusters is presented in Table 5.

As mentioned above in Section 4.3, it was surprising that the red color was less preferred by the respondents. Hence, we isolated the label design in the segmentation analysis and applied latent cluster analysis (Latent GOLD software, Version 4.0, Vermunt and Magidson, 2005) to the label color data only. The results of the analysis suggested four clusters (BIC on the log-likelihood was used to identify the best cluster model) with no cross-loadings. Each cluster represents a single label color.

All four label colors are significantly different between the clusters (p-values < 0.01), which implies that these attributes are important in segmenting the clusters. The four-cluster solution is presented in Table 6. Since significant differences were observed among the clusters, we suggest that a latent behavior existed between these clusters, and therefore respondents were classified into different groups. Each cluster represents a different color preference. Cluster 4 is the largest cluster and the respondents focus on the red label color.

Results show (Table 6) that the segment of respondents who prefer red labels consists of 35% of the respondents in our sample, making red the most preferred color. This segment is much larger than the segments of respondents that prefer the other colors. These findings are with agreement with the standard Chinese preferences of colors (Akcay et al., 2011; Kommonen, 2011; Liu and Murphy, 2007), where red is considered a lucky color. In conclusion, more in-depth analysis is required to confirm the perception of color by Hong Kong Chinese consumers.

5. Discussion, implications, and conclusions

This study aimed to explore Hong Kong Chinese consumer's wine preferences in order to determine what information they look for on wine labels and how this information and other label attributes affect their purchasing decisions. The results confirm that, similar to consumers from other cultures (see e.g., Lockshin and Cohen's (2011) study of 11 countries), Hong Kong Chinese consumers in our study are assisted in their wine purchasing decision by extrinsic and intrinsic cues on the wine label. Among these are wine origin, grape variety, brand name, and food and wine pairing, as well as label design and color. However, they differ from their mainland Chinese counterparts and from Westerners in attaching the highest importance to the origin of the wine and to food and wine pairing, and in their preferred label color. Nevertheless, their preference for label design resembles that of consumers in Western countries such as the US and France.

An upcoming trend among Hong Kong Chinese wine consumers is a preference for food and wine pairing information to be present on the wine label. This factor was not of importance in the past few years, and was barely mentioned in past studies (Yu et al., 2009), but with the popularity of wine appreciation courses and wine-tasting events, and in an atmosphere in which Hong Kong enjoys the reputation of being a "gourmet paradise," wine and food have come to be closely

Table 6
Latent class cluster parameters.

Label color	Cluster 1	Cluster 2	Cluster 3	Cluster 4	p-Value
Red color dominant	−1.607	−2.252	−2.218	**6.077**	0.000
Yellow color dominant	**6.977**	−2.421	−2.336	−2.220	0.003
Black color dominant	−2.110	**5.534**	−1.515	−1.910	0.001
White color dominant	−2.063	−1.895	**6.717**	−2.760	0.000
Cluster size	23%	22%	20%	35%	

Table 5
Cluster membership by demographic segments (%).

Segment		Cluster				Average	Number of respondents	Chi-sq. for segment
		1	2	3	4			
Gender	Female	54.2	39.9	68.4	46.7	50.8	60	4.7
	Male	45.8	61.1	31.6	53.3	49.2	58	ns
Age group	18–34 years	41.7	30.6	94.7	33.3	45.8	54	23.3
	35–44 years	31.2	36.1	5.3	40.0	29.7	35	$p < 0.01$
	45+ years	27.1	33.3	0.0	26.7	24.6	29	
	Cluster size (%)	100.0	100.0	100.0	100.0	100.0	118	

associated with one another. This research reveals that there is a demand for such information, which should not be ignored by wine label designers, marketers, or winery owners. For inexperienced wine consumers looking for a new taste or wine enthusiasts with little or rudimentary wine knowledge, such information could be of great value in guiding their selection and could lead to repeat purchases and recommendations to friends and relatives by word of mouth.

In addition, attractive and easy to understand wine label design would make the information search easier. Combinations of elements of wine label designs and colors should be used according to the product's target audience and take into account the timing of the purchase and different consumer groups. As mentioned above, preferences for wine label color among Hong Kong Chinese are differently distributed among different consumer segments with, according to the second segmentation analysis, the largest segment preferring labels with red as the dominant color. Notably, the segmentation results demonstrate that a simple means comparison test based on Likert-scale based data can be misleading if not followed by more advanced methods, such as data-driven segmentation analysis.

Being a former British colony, Hong Kong is influenced by both Chinese and Western culture. However, the findings of this study are in line with those of Hu et al. (2008), revealing that some salient features of Hong Kong Chinese wine consumers' buying behavior are associated with the Chinese culture, particularly the "face value," which is reflected in the selection of wine origin. This information is valuable to French wineries and wine companies as well as to wine label designers, who may choose to include a French element in the wine label to attract consumers' attention.

One major element in the successful marketing of wine is the importance of thoroughly understanding the targeted market and its consumers. Each market and each consumer segment differ in their wine perceptions and preferences. Knowledge of the key factors that influence their wine purchases can assist wineries, brand owners, and marketers in achieving successful sales results and sustaining them in the long term.

This study on the Hong Kong Chinese population is of particular importance to wineries, wine companies, wine label designers, and wine marketers due to the distinctive features of this population and its rising per capita consumption of wine. Accordingly, some key recommendations for wine marketers, including wine label designers can be drawn:

- Information on the origin of the wine, which could include country of origin and region, must be conveyed directly.
- Information regarding grape variety and food and wine pairing should be given high priority by wine label designers.
- Combinations of elements of wine label designs and colors should be used according to the product's target audience: specifically, young people prefer "elegant contemporary" labels with red as the dominant color, whereas older people prefer traditional labels with châteaux and white as the dominant color.

5.1. Limitations and future research

The present study has several limitations and should be followed by further studies. First, future research with a larger sample size and longer time frame is recommended to prevent a limited representation of the sample population and to make the results more generalizable to the Hong Kong population. Second, the selections of labels for the questions related to label design and label color dominance are limiting and might not result in the most precise interpretation possible. This should remain for future studies.

One last important point to mention is that the list of attributes selected poses some limitations that may have restricted the respondents in their ranking. Attributes such as vineyard, percentage of blend, and cellaring information, to name a few, could be considered in future studies. Future studies should take into account how other possible factors, such as level of wine knowledge and interest in wine, influence consumers' perceptions. Future studies may also place more emphasis on the distinctive characteristics of the bottle of wine in relation to purchase intent, enabling marketing practitioners and wine label designers to appeal to values such as sense of quality, loyalty, satisfaction, and so on when designing wine labels. Future research could investigate variables of importance in the course of the purchase decision-making process, such as other information sources (the Internet, for example).

In the current study, a-priori segmentation based on demographic characteristics of the respondents did not show significant preferences or trends of wine characteristics, label design, and color. However, latent class segmentation shows different clusters in terms of using wine labels and colors. A larger-scale study is recommended to explore the characteristics of consumers in such segments.

Finally, while a comparative study embracing the three major territories of Hong Kong (Hong Kong Island, Kowloon, and the New Territories) was not possible due to the small sample size, such a study would be of interest in order to determine consumers' behavior with the aim of improving product placement, sales, and marketability within Hong Kong.

Appendix A

See Fig. A1

A – Traditional with château
B - Modern classic
C – Modern vibrant
D – Modern contemporary
E – Elegant contemporary

Fig. A1. Combinations of wine label designs presented to respondents.

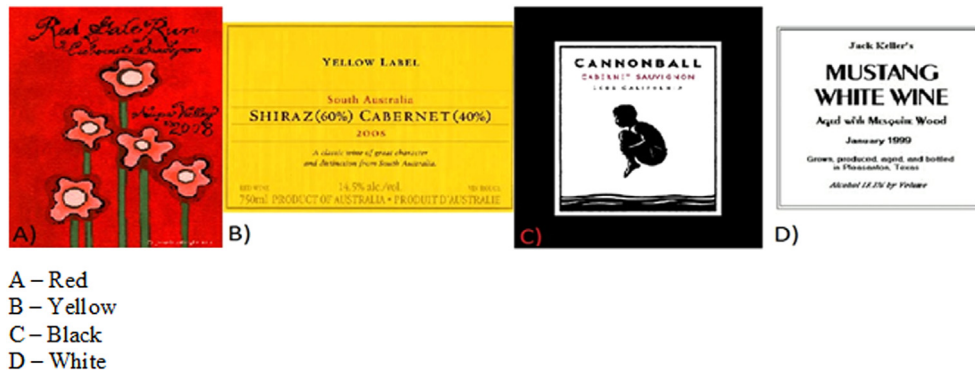Fig. B1. Four labels each with a single dominant color, presented to respondents.

Appendix B

See Fig. B1

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