To Dye or Not to Dye: A Comparison of Gen Y Consumers' Perceived Value of Salon Hair Coloring in China and the United States

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Abstract

This study examines how Generation Y (Gen Y) consumers perceive the value of salon hair coloring in China versus in the United States. Findings from a qualitative study and the previous literature were used to develop a survey measuring Gen Y consumers' perceptions of quality value, emotional value, epistemic value, social value, monetary cost, time/effort cost, and health risk cost of salon hair coloring in the United States and China. Quality value, emotional value, and social value appeared to have a stronger influence on US Gen Y consumers, while epistemic value, monetary cost, and health risk cost appeared to have a stronger influence on Chinese Gen Y consumers. In addition, time/effort costs turned out to have the same level of influence on the two samples. The study results imply that retailers targeting China and the United States may need to use different marketing strategies in the two countries to ensure that the perceived value dimensions most salient to their consumers in each country could be emphasized.

Keywords: consumer perceived value (CPV), Generation Y (Gen Y), salon hair coloring, China

1. Introduction

Hair has always been considered an important part of the body with strong social and cultural significance (Kaiser, 1997). Previous research has found that virtually all societies, from less advanced to highly advanced cultures, have dealt with hair as a form of expression (Hoebel, 1958). Thus, it is not surprising that in modern societies, hair care activities are multifarious and prevalent across cultures, and it has become an industry with multi billion dollars in annual sales (Weber & Villebonne, 2002). Hair coloring itself was the third largest category of hair care in 2011, right after shampoo and conditioner (Euromonitor, 2013). Given the importance of hair care in all cultures and the global nature of today's markets across product categories, it is important to understand the hair care industry on a global level. Yet, little is known about this important product category, and even less is known about hair coloring and its value to consumers from a cross-cultural perspective.

According to Euromonitor (2013), the global Beauty and Personal Care industry reached total sales of US$ 433 billion in 2012, which was back to the pre-recession level. In that year, the hair care industry, a segment of the beauty and personal care industry, was the 2nd largest category, following the skin care segment. Despite the large drop in spending during the great recession, the global hair care market grew on average by 4% annually between 2006 and 2012 (Euromonitor 2013).

Hair care category includes the following products: shampoos (anti-dandruff, baby, etc.), 2-in-1 products, perms and relaxants, salon hair care, all conditioners (traditional and intensive), hair coloring (bleachers, permanents, and semi-permanents), and styling agents (gel, sprays, waxes, creams, etc.). Specifically, in 2011, it reached US $13.5 billion and is expected to grow to US$ 15.8 billion by the year 2016 (Euromonitor 2013). The sector was also one of the main drivers of growth in Beauty and Personal Care industry during the year, with sales increasing by over 10%. Growth was driven by the strong performance of key emerging markets, such as Brazil, China, and India.

2. Literature Review

With hundreds of brands to choose from, consumers may find it increasingly difficult as to which product has the right value to best meet their needs. Hence, the study of consumer perceived value relative to hair coloring is particularly warranted. One way of better understanding the broader, or international, scope of hair coloring is to consider its relevance to Eastern versus Western consumers such as China and the United States.

Investigating and comparing these large and impactful societies on the issue of hair coloring offers the opportunity to expand our understanding of both cultural and business issues (Pan, Chaffee, Chu, & Ju, 1994).

2.1 China

A strong consumer market has been developing in China since its significant social and economic changes in recent years have taken root (McEwen et. al. 2006). Chinese consumers are showing an increasing purchasing power for a wide variety of non-staple consumer goods, including hair coloring. In 2011 China already accounted for 6% of global spending on hair care (Euromonitor 2013). At the same time, China's hair care market recorded the second fastest growth in absolute dollar value behind Brazil but ahead of India, the US and Argentina (Table 1).

Table 1: Top Ten Countries in Absolute Growth in Hair Care Expenditure from 2011to 2016 (in US $ million)

Brazil	3,542
China	1,369
India	1,223
US	677
Mexico	511
Iran	450
Pakistan	279
Indonesia	196
Saudi Arabia	170
Argentina	157

Source: Euromonitor (2013)

The hair care market in China has been dominated by the shampoo segment, which accounted for 69.2% of sales in 2012. The second largest segment was the conditioner segment which accounted for 18.3% of sales, followed by the hair coloring segment with 5.9% of sales (Table 2). The lack of sales in the hair coloring sector suggests a huge potential for growth.

Table 2: Market Structure of the Hair Care Market in the US and China

	United States	**China**
Product Market Shares, in Percent of National Market		
Shampoo	24	69.2
Conditioner	17.6	18.3
Hair coloring	15.5	5.9
Supplier Market Shares, in Percent of National Market		
L'Oreal	22.8	3.1
Procter & Gamble	21.2	36.7
Unilever	8.9	14.2

Sources: Euromonitor (2013, b, c), 2012 data

According to Li (2003), at the beginning of the new millennium there were approximately 2,000 domestic and foreign hair care product manufacturers competing in the Chinese market, including over 200 hair coloring producers. At that time, although the Chinese market has had a significant presence among Asian companies, such as the Japanese Kao Corporation, as well as some Western multinational giants, such as P&G, Wella, and L'Oreal; it had not been dominated by either type of company. The situation has changed substantially since then: Foreign companies increased their market share in China from around 40% in 2003 to more than 70% in 2012 (Euromonitor 2005b, 2013b) with Procter and Gamble and Unilever jointly dominating the market with 36.7 % and 14.2% market share in 2012, respectively.

2.2 United States

Style plays an increasingly important role for US consumers (Moore, 2005), driven by baby boomers trying hair care products to hide graying hair and helping them feel younger.

In addition, younger consumers, including Gen Ys vary styles and colors of their hair constantly to experiment new looks. In 2011 the United States was the largest hair care market in the world with 13% of global hair care product sales, but its global market share had dropped precipitously from 23% only 8 years earlier (Datamonitor 2004, Euromonitor 2013). The shampoo segment also dominates the US market with 24%. Hair coloring represents the fourth largest segment in the US with 15.5% (Euromonitor 2013). In 2012, three companies continued to dominate this market and accounted for more than half of sales in the US, with L'Oreal (22.8%), Procter & Gamble (21.2%), and Unilever (8.9%) (Euromonitor, 2013c). These findings and comparisons between the United States and China are summarized in Table 2.

2.3 A Two-Country Comparison

Table 2 and the discussion of the individual national markets show some marked differences between the hair care markets in the United States and China: The shampoo segment dominates both the United States and Chinese markets with 24% and 69% respectively. Hair coloring represents the fourth largest segment in the US with 15.5%, while it represents the third largest segment in China, however with yet only 5.9%. Market concentration is higher and increases in China but it is lower and decreases in the United States. This begs the question on what drives these disparities.

Because of the differences in the level of economic development, the characteristics of the two domestic business environments, and the cultural differences, consumers in China and the United States would be expected to demonstrate significant differences in their consumption behaviors in general and their hair coloring consumption in particular. It has been argued that Chinese traditional culture emphasizes thrift, diligence, and value consciousness (Wang & Rao, 1995). Compared to consumers in more developed nations, Chinese consumers have been found to be more functionally oriented in their shopping decisions (Li et. al. 2004). They also value frugality and tend to buy products that other members in their personal environment tend to consume. Westerners' decisions, in contrast, are guided more by personal tastes and preferences. More recently, however, western mass media and entertainment seem to have influenced Chinese consumers more towards a western style attitude towards beauty (Podoshen et. al. 2011). US consumers, who have often been characterized as consumption-driven and materialistic, i.e., valuing the acquisition of possessions (Richins & Dawson, 1992; Podoshen et.al. 2011), seem to have changed focus on enhancing the consumption experience—not on functionalism (Pine & Gilmore, 1999). Relevant to this study, consumers from collectivist cultures, such as China, have also been found to be more concerned about their personal appearance and about how they are seen by others when compared to consumers from individualist cultures, including the United States (Sun, et. al. 2004). Younger consumers share features that suggest them for a study of the hair coloring market: They like to experiment and express their individuality and hair coloring provides an easy way to do so, although media and celebrity endorsements are influential in determining which trends consumers follow. Moreover, Gen Y has substantial disposable income. Their valuation of their environment in product choice, emotional purchasing decisions, and tendency towards early adoption makes them a particularly dynamic demographic for hair coloring (Euromonitor, 2005; Parment 2013). Finally, especially in China, the Gen Y consumer is an entirely different group as compared to generations before them because most of them are the only child in the family and have more financial support from their parents and grandparents. In contrast to older generations, younger Chinese consumers have more appetite for and consuming experience with Western products, making them more likely to be potential consumers of Western products (Zhou & Nakamoto, 2001).

2.4 Hair Coloring Research

As a natural part of the body, hair is an important part of the body's social and cultural significance. In order to understand the contextual social and cultural meanings of hair and how hair has been used to change appearance, three perspectives can be used to form a contextual framework—the cognitive, symbolic-interactionist, and cultural perspectives (Kaiser, 1997). When combined, the three perspectives provide an overview of the social and cultural situations in which people deal with appearance-related pursuits. For example, within this contextual framework, the theory of adornment predicts that all bodies in all cultures are decorated, dressed, or adorned to a certain extent (Eicher, Evenson, & Lutz, 2000). Although the discussion of adornment in extant consumer behavior literature is limited, it is generally accepted that adornment is routinely used in all cultures to enhance physical attractiveness (Cash, 1987; Bloch, 1993). The consensus of most studies is that physical attractiveness, in turn, may lead to certain social advantages (Cash & Henry, 1995; Chiu & Babcock, 2002).

Not surprisingly, adornment of the body and hair has been used in the pursuit of physical attractiveness across the centuries and across cultures (Bloch & Richins, 1992).

Beauty and personal care products in general are a widespread way of adorning the body. However, little attention has been directed to this product group, despite its extensive usage in consumers' daily lives and the increasing use of hair care products. Male consumers have been ignored almost entirely[1] in terms of their cosmetics consumption although male consumers could be an important potential market for cosmetic products, particularly hair care products. Hair and its potential for adornment and the creation of social advantage thus suggest large benefits of studying how consumers perceive the value of hair coloring.

The review of relevant literature indicated the following gaps in the literature: appearance-related product categories, including cosmetics, jewelry, and clothing, especially with male consumers have not received appropriate attention in academic research. The same is true for Gen Y cohorts in general and even more so for Chinese Gen Y cohorts. In the consumer perceived value research area, there is no study of Chinese consumers in the beauty and personal care industry, and there have been very few cross-cultural studies in CPV in service industries (see e.g. Kim et. al. 2010 for an exception)

This study therefore analyzes the question on what dimensions of perceived value most influence Gen Y consumers' overall perceptions of value for salon hair coloring relative to what they benefit versus what they sacrifice in the US and Chinese markets. In particular, we ask: Do Gen Y consumers perceive the value of salon hair coloring differently in China versus the United States and on what dimensions do they differ?

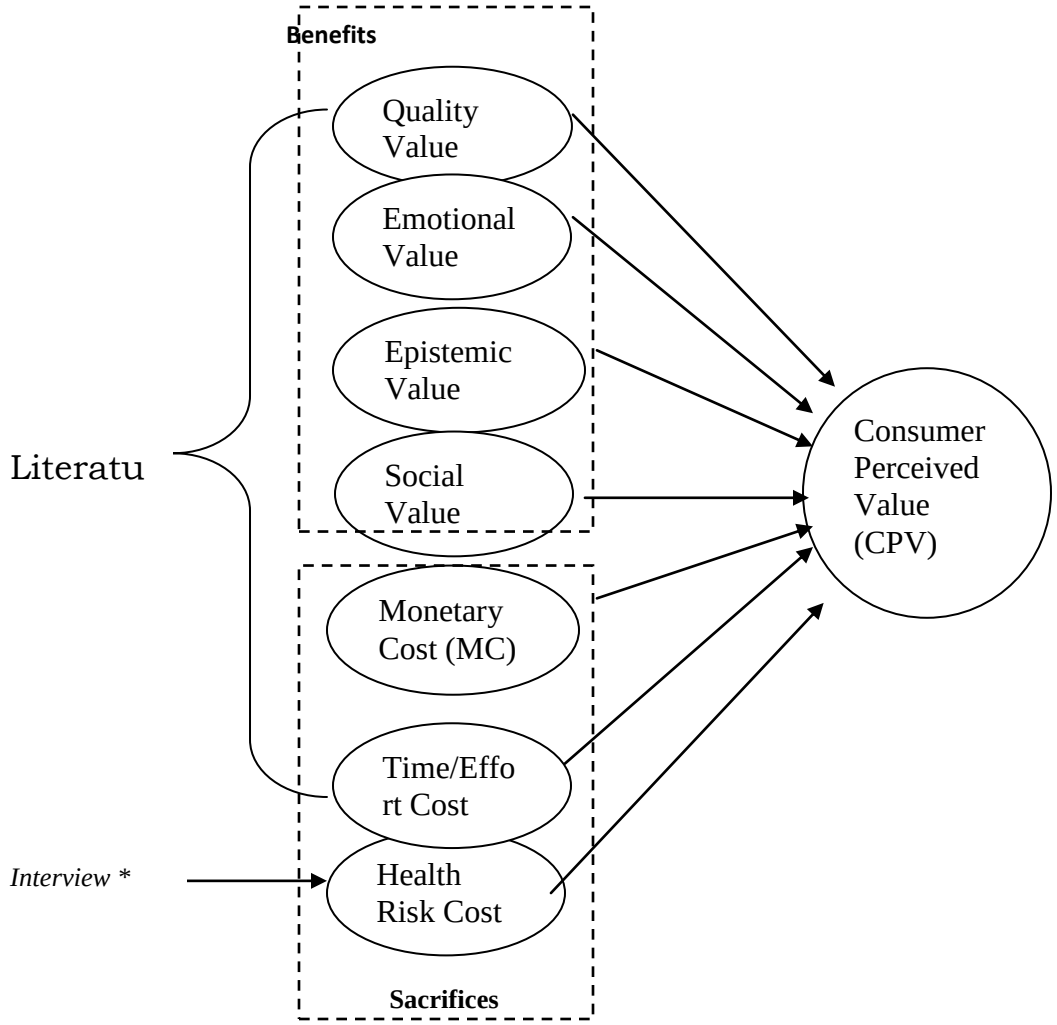
3. Methodology

We approach our research question in two steps (Zhao, 2014). The first step comprises qualitative analysis using in-depth interviews because little research on CPV of salon hair coloring could be found and exploratory work was needed in order to achieve proper survey design. The qualitative research produced preliminary results that were used to compare with previous findings in the literature and to generate the conceptual framework for CPV in this case. In the second step, a set of hypotheses were developed and tested by the survey technique to obtain quantitative results.

Zeithaml (1988) introduced perceived value as a "trade-off" structure, which we develop our conceptual model upon and sort components of consumer perceived value for salon hair coloring into benefits and sacrifices (see Figure 1). We expect the components in the "benefits" category to have a positive effect on CPV, while the components in the "sacrifices" category should have a negative effect on CPV. We employed those six value components produced by our literature review that were closely associated with repeatedly mentioned topics resulting from the interviews: quality value, emotional value, epistemic value, social value, monetary costs, and time/effort costs. We also included health risk costs as this component repeatedly emerged in the interviews, but has not yet found its way into the literature.

[1] See Souiden and Diagne 2009 for an exception.

Figure 1 Conceptual Model of CPV for Salon Hair Coloring



Note: * indicates the sources of dimensions

3.1 Hypotheses

H1: The quality value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.
H2: The emotional value of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.
H3: The epistemic value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.
H4: The social value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.
H5: The monetary costs of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.
H6: The time/effort costs of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.
H7: The health risk costs of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

3.2 Sample

Although this study defines Gen Y consumers as people born between 1977 and 1994, only Gen Ys attending college were selected for this study due to this sub-segment's increased purchasing power, its ability to purchase independently, and its relative freedom to express itself without parental control.

This appears to be true for both Chinese and US Gen Y consumers. According to Gardyn (2002), in the US alone over 15 million older Gen Ys then between the ages of 19 and 25 attended college and enjoyed a collective purchasing power of $105 billion, with full-time students spending approximately $300 per month on personal or discretionary items, especially food, personal care, and music items. China started the one-child policy in the late 1970s in response to its swelling population. This resulted in the "little emperor" family structure in which nearly every child is supported by "six-pockets" (i.e. two parents and four grandparents) (Wysocki, 1997). Relative to older generations, these "little emperors" have been found to be less tradition-bound, more conscious about brand symbolism, and more oriented towards brands, success, and self-gratification—with six pockets to finance the spending (Salzman, 1999).

Specifically, the Gen Y participants recruited for this study, 249 Chinese Gen Y consumers and 200 US Gen Y consumers, were drawn from college students, including both part-time and full-time, enrolled in four universities, three in China and one in the United States.

3.3 Data Analysis Techniques

The hypotheses were tested by the Independent Samples T-Test, using SPSS. Given that many statistical procedures to be used during this study assume that data are normally distributed. Prior to proceeding with the analyses strictly associated with this study, a review of all variables was conducted in order to examine departures from normality and to check for the existence of univariate outliers. Before testing the hypotheses, SPSS was used to calculate descriptive statistics, such as means, standard deviations, skewness, and Kurtosis of each item variable and inter-item correlations, to describe the profile of the two samples. An absolute value of the skewness coefficient or (excess) kurtosis larger than one indicates that a variable does not follow a normal distribution and needs to be further investigated. If necessary, the Kolmogorov-Smirnov test would be performed for specific variables, comparing the observed cumulative distribution function for the variable with a specified distribution, i.e. a normal distribution. The value of the Kolmogorov-Smirnov's statistic being significant suggests that the variable in question is approximately normally distributed and could be used in further statistical analyses. For the purposes of this study, all statistical tests were considered significant at an alpha level ≤ 0.05.

Initially, a data reduction process was conducted in order to collapse the constructs employed in this study into composite variables because the comparative analysis between the two Gen Y consumer groups was conducted on constructs rather than individual measurement items. Eight constructs were investigated in the study, including seven exogenous latent constructs (quality value, emotional value, epistemic value, social value, monetary cost, time/effort cost, health risk); and one endogenous latent construct, consumer perceived value (CPV). All eight constructs were subjected to validity and reliability tests before a single composite score could be calculated to represent each construct (Zhao, 2014). According to Hair, Anderson, Tatham, & Black (1998), validity is defined as the extent to which a scale measures the concept under discussion. The validity of constructs can be assessed in different ways, for example, face validity, convergent validity, and divergent validity. If the constructs or the variables lack validity, interpretation is jeopardized and researchers might draw incorrect conclusions. This particular study itself is a construct validation process. Moreover, the face validity in this study was confirmed by the results obtained from the pre-test of the surveys. Face validity refers to whether the survey constructs logically appear to the researcher to measure what they are intended to measure. Reliability is the extent of consistency between various measurements of a variable (Hair et al., 1998). Reliability was analyzed in this study by calculating Cronbach's alpha in SPSS for each construct. The Cronbach's alpha criterion set for the study's eight constructs was the threshold point of 0.7, as suggested by Nunnally (1978). Having met the requirements of construct validity and reliability, the composite measure of each construct was then measured by calculating the mean value (Hair et al., 1998). Subsequently, some descriptive statistics such as frequency distributions, means, standard deviation, skewness, and kurtosis of each construct were calculated for both samples individually.

As pointed out in the literature, there are many problems with conducting cross-cultural comparative studies, one of which is whether the instruments designed to measure the relevant constructs are cross-culturally invariant (Steenkamp & Baumgartner, 1998). Measurement invariance is defined as "whether or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute" (Horn & McArdle, 1992, p. 117). It has been argued that analyses of the differences between constructs can only be meaningful when the items measure the same thing and to the same degree in each context (Steenkamp & Baumgartner 2000).

Therefore, the establishment of measurement invariance across cultural settings is a logical prerequisite for testing the difference of structural parameter estimates. The procedure of the comparative test followed the hierarchical steps of multi-sample data analysis given in Mullen (1995), using SEM.

To test measurement invariance, the most restrictive format would be testing the assumption of equality of covariance matrices between the two samples. Major goodness of fit statistics include Minimum Fit Function Chi-Square (χ^2), Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), and Non-Normed Fit Index (NNFI). As suggested by Browne & Cudeck (1993), chi-square statistics are too sensitive to sample size. For models with more than 200 cases, such as in this study, the chi-square is almost always statistically significant, which rejects proposed assumptions. Therefore, although this study reported chi-square statistics in its results, more weight was put on the other goodness of fit indices when interpreting the results. To support the assumption, RMSEA should be 0.05 or smaller. Ideally, the lower value of the 90% confidence interval of RMSEA includes or is very near zero and the upper value is not very large, i.e., less than 0.08. Furthermore, GFI as well as NNFI should be 0.90 or larger. However, GFI only tends to have stable properties for sample sizes of 250 or larger (Hu & Bentler, 1995), which means GFI probably would not be a powerful indicator for this study because the size of each sample was smaller than 250.

After the establishment of measurement invariance and/or partial measurement invariance, CFA was conducted in SEM for both samples, and comparisons of the statistics were made to investigate which sample the proposed model fit better.

3.4 Results

The Cronbach's alpha was calculated for the eight constructs (Zhao, 2006). Except for the construct of epistemic value (EPV) in the Chinese sample having a lower reliability of 0.63, all the other constructs showed high internal reliability, with an alpha coefficient greater than 0.80. The measurement scale for the epistemic value construct was adapted from Pura's (2004) study conducted in Finland, where the scale demonstrated a good reliability of 0.80.

3.4.1 Cross-Cultural Comparisons: H1-H7

To test the seven proposed hypotheses, the Independent Samples T-Test in SPSS was employed to compare the means of the seven value dimension constructs between the two samples. Table 3 displays the results from the Independent Sample T-Test for Hypotheses 1 through 7 in numerical order. As shown in the table, the results from Levene's Test for Equality of Variances are included. The results from the Levene's Test divided the results for each construct tested into two categories: (1) if the F-value for the Levene's Test was not significant at an alpha level ≤ 0.05, equal variances between the two samples could be assumed and the results for the appropriate T-Test were found in the first row; (2) if the F-value for the Levene's Test was significant at an alpha level ≤ 0.05, equal variances between the two samples could not be assumed and the results for the appropriate T-Test were found in the second row of the statistics. Based on these criteria and for the reader's convenience, the corresponding results for each hypothesis are presented and the appropriate statistics highlighted in bold in Table 3.

Looking across the seven hypotheses proposed in the study, it should be noted that six of the seven hypotheses indicated strong statistical differences between the two samples, suggesting that these two samples had profound differences relative to the values each associates with salon hair coloring. It was also an interesting finding that only time/effort costs were viewed similarly by the two samples. This may have reflected: (1) that younger consumers everywhere tend to have similar levels of patience; (2) that city life (none of the study respondents was rural) and economic development are producing similar young consumers in China and the United States; or (3) that patience levels for consumers of this product category may tend to be similar. Further research will be needed to clarify this finding.

In summary, Hypotheses 2, 3, and 7 were supported, which means Chinese Gen Y consumers perceive lower emotional value, higher epistemic value, and higher health risk cost than US Gen Y consumers in terms of salon hair coloring. It was interesting to notice that out of the three hypotheses that were supported by the quantitative data analysis, two (epistemic value and health risk cost) were proposed based on the information obtained from the qualitative interviews due to the paucity of research on those topics in the extant literature.

From a methodological perspective, the results indicated that the preliminary qualitative research was a very important factor in formulating hypotheses for the quantitative phase of the research, especially in a case where little relevant research has been conducted. From a theoretical perspective, these results provided new knowledge about CPV and about salon hair coloring, filling some of the gaps in the literature and providing a possible foundation for future research in related areas.

Table 3: Independent Sample T-Test Results for Hypotheses 1-7

		Levene's Test for Equality of Variances		*T-Test for Equality of Means*				
		F	Sig.	t	df	Std. Error Difference	Mean Difference	Sig. (2-tailed)
H1:QV	Equal variances assumed	1.337	.248	**-4.775**	**447**	**.1132**	**-.5407 ***	**.000**
	Equal variances not assumed			-4.729	408.316	.1143	-.5407	.000
H2:EV	Equal variances assumed	3.399	.066	**-10.595**	**447**	**.1179**	**-1.2489 ***	**.000**
	Equal variances not assumed			-10.725	441.874	.1164	-1.2489	.000
H3:EPV	Equal variances assumed	53.789	.000	2.974	447	.091	.270	.003
	Equal variances not assumed			**2.809**	**297.121**	**.096**	**.270 ****	**.005**
H4:SV	Equal variances assumed	.072	.789	**-5.906**	**447**	**.121**	**-.717 ***	**.000**
	Equal variances not assumed			-5.911	427.525	.121	-.717	.000
H5:MC	Equal variances assumed	4.127	.043	3.054	447	.12348	.37716	.002
	Equal variances not assumed			**3.090**	**441.275**	**.12207**	**.37716 ****	**.002**
H6:TC	Equal variances assumed	10.941	.001	-.729	447	.1401	-.1021	.466
	Equal variances not assumed			**-.741**	**444.821**	**.1379**	**-.1021 ***	**.459**
H7:HC	Equal variances assumed	3.849	.050	13.166	447	.1140	1.5015	.000
	Equal variances not assumed			**13.085**	**415.462**	**.1147**	**1.5015 ****	**.000**

Note: * negative values indicate lower means for the Chinese sample
** positive values indicate higher means for the Chinese sample

Hypotheses 1, 4, 5, and 6 were not supported, which means Chinese Gen Y consumers do not necessarily perceive higher quality value, higher social value, lower monetary cost, and lower time/effort cost than US Gen Y consumers.

Among the four, the two hypotheses dealing with social value and time/effort cost were formulated solely on previous research because no direction for making predictions on these two values emerged from the qualitative interview data. The other two hypotheses dealing with quality value and monetary cost were designed based on both information from the previous literature and information that emerged from the qualitative interview data. Given that the predictions for the perceived levels of these values were not supported by the quantitative results, each of them warrants a detailed explanation.

3.4.2 Model Fit

Measurement invariance and/or partial invariance was confirmed for the two samples under discussion (Zhao, 2006) before a CFA in SEM was conducted to investigate the overall fit of the proposed conceptual model for both samples respectively.

Figure 2 represents the fit of the proposed model for the Chinese sample. The evidence provided by the path coefficients in Figure 2 (effects of the seven exogenous latent variables on the one endogenous latent variable) revealed that except for time/effort cost (TC), the other exogenous latent variables all had the predicted influence on CPV. Specifically, the effects of quality value (QV), emotional value (EV), epistemic value (EPV), and social value (SV) on CPV were all positive as predicted and reflect the "benefit" constructs that would be anticipated for CPV. Conversely, the effects of monetary cost (MC) and health risk cost (HC) were negative as predicated and reflected the "sacrifice" constructs that would be anticipated for CPV. Note that time/effort cost (TC) had a positive effect on CPV for the Chinese sample, which was surprising and not consistent with the prediction.

Figure 3 presents the fit of the proposed model for the US sample. Results of the analysis of the path coefficients in Figure 3 (effects of the seven exogenous latent variables on the one endogenous latent variable) showed that except for health risk cost (HC), the other exogenous latent variables all demonstrated the predicted influence on CPV. Specifically, the effects of quality value (QV), emotional value (EV), epistemic value (EPV), and social value (SV) on CPV were all positive as predicted and reflected the "benefit" constructs associated with CPV. Conversely, the effects of monetary cost (MC), and time/effort cost (TC) were negative as predicated and reflected the negative "sacrifice" constructs related to CPV. It should be noted that the health risk cost (HC) construct had an unexpected positive effect on CPV - but consistent with the finding from the qualitative study that American Gen Y consumers do not seem to care.

Figure 2: Path Diagram of the Proposed Model for Chinese Gen Y Consumers

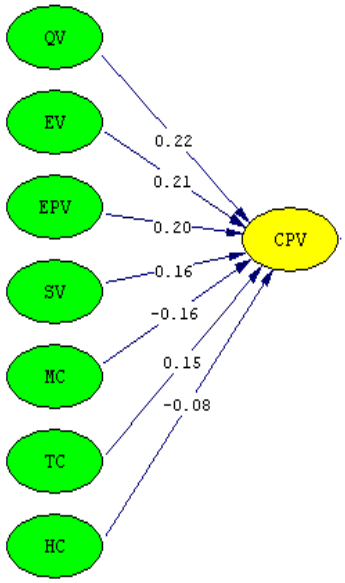
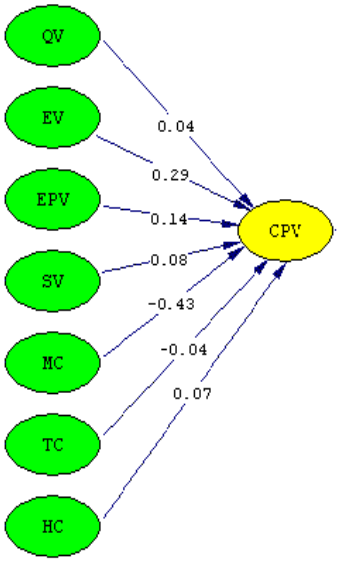


Figure 3: Path Diagram of the Proposed Model for the US Gen Y consumers



For the Chinese sample, the model yielded a statistically significant chi-square statistic, which did not support good fit for the model based on the data. The value of RMSEA being 0.055 and its Confidence Interval capturing acceptable values, i.e. lower than 0.80, however, did indicate the model was a good fit for the data. A GFI lower than the ideal criterion, 0.90, showed insufficient support while a satisfactory value of NNFI showed strong support for the model being a good fit. Thus, according to the limits accepted for a good fit, the proposed model appeared to demonstrate an acceptable fit for the Chinese sample.

For the US sample, the model also yielded a statistically significant chi-square statistic, which did not support the model being a good fit for the data. The value of the RMSEA being 0.074 and its Confidence Interval not capturing acceptable values, i.e. lower than 0.80, again indicated that the model might not be a very good fit for the data. The GFI being lower than the ideal criterion of 0.90, showed insufficient support, while only the satisfactory value of the NNFI showed strong support for the model being a good fit. According to the limits accepted for a good fit, the proposed model appeared to demonstrate a fair fit for the US sample. Obviously, by comparison, the model fit the Chinese Gen Y sample better than the US Gen Y sample. Table summarizes the model fit statistics for both samples.

Table 5: Model Fit Statistics for the Two Samples

Gen Y Group	χ^2	d.f.	p-value	RMSEA	90% C.I. for RMSEA	GFI	NNFI	Model Fit Decision
Chinese	811.06	467	0.00	0.055	(0.048, 0.061)	0.83	0.96	Partially Supported
US	992.24	467	0.00	0.081	(0.074, 0.087)	0.75	0.94	Partially Supported

Source: SEM results, LISREL 8

With reference to the proportion of variance accounted for by structural equations, the PSI-Matrix showed that the model explains approximately 56% of the variance in CPV for the Chinese sample while the PSI-Matrix showed that the model explains approximately 41% of the variance in CPV for the US sample, additional evidence that the model provided a better fit for the Chinese sample than for the US sample.

4. Summary and Conclusion

From a theoretical perspective, the findings of this study have added to the body of knowledge in CPV by demonstrating that Zeithaml's (1988) classification of consumer perceived value into benefits and sacrifices seemed to be applicable to the case of salon hair coloring.

Results from both the qualitative and the quantitative research suggested that consumers perceive hair coloring as a tradeoff between what they "receive" (i.e. quality, emotional value, epistemic value, and social value) and what they have to "give up" (i.e. health risk, monetary cost, and time/effort). Furthermore, this study suggested that the model which was originally developed in a Western cultural setting, i.e., the United States, could also be applied to an Eastern cultural setting, i.e., China.

A methodological contribution of this study is the adaptation of three scales, including the scales for epistemic value (EPV), time/effort costs (TC), and health risk costs (HC), which were not originally developed for consumer perceived value studies. The three scales proved to have satisfactory internal reliability (Cronbach's alpha between 0.81 and 0.92) except for the application of the EPV scale in the case of the Chinese data (Cronbach's alpha being 0.63). It could be that the EPV scale's low reliability is due to a ceiling effect, an effect whereby data cannot take on a value higher than some "ceiling," that is respondents may have given consistently higher responses on this construct resulting in reduced variation. A possible solution would be to add more items to this scale to improve its reliability. Overall, the high performance of these adapted scales not only showed the credibility of the translation procedure used in this study, but also added possible tools to examine the role of EPV, TC, and HC further in subsequent studies. In addition, due to the establishing of partial invariance and the strong Cronbach's alpha levels for the constructs, the set of scales used in this study may prove helpful for future cross-cultural studies that are concerned with consumer perceived value.

From a practical perspective, this study contributed by providing two pieces of insightful knowledge to the business world: (1) Gen Y consumers appeared to perceive the value of salon hair coloring differently in China versus the United States. Specifically, except for the perception of time/effort cost, Chinese Gen Y consumers appeared to perceive a higher level of epistemic value, monetary cost, and health risk cost, as well as a lower level of quality value, emotional value, and social value than their US counterparts; and (2) The dimensions of perceived value that are most influential to Chinese Gen Y consumers' overall perception of what they give versus what they receive for salon hair coloring are not the same as for US Gen Y consumers. In particular, monetary costs turned out to be influential costs for both Chinese and US Gen Y consumers. However, the most influential value for Chinese Gen Y consumers seemed to be quality value while the most influential value for US Gen Y consumers appeared to be emotional value. The study results suggest that marketers may want to rethink the communication channels appropriate for promoting salon hair coloring to Gen Y. Some of the most effective mass media for advertising to younger generations include internet, magazine, and TV. Relative to hair coloring, all of these techniques have been used mainly for advertising self hair coloring products, instead of salon hair coloring. In China, billboards are used, if not widely popular yet, for salon hair coloring advertisements, while in the United States, salon hair coloring businesses seem to rely on word-of-mouth primarily. Finding the right advertising approach and designing specific commercials tailored to each Gen Y group, whether in China or the United States, may be critical for success in promoting salon hair coloring.

As with all studies, when interpreting the results of this research, its limitations should be taken into account. First, the scales were drawn from the extant literature and modified successfully for application in this study. However, the epistemic value construct did fall below Nunnally's (1978) criterion. Second, the respondents were primarily full-time students and may not be as representative of older Gen Y consumers as they are of younger Gen Y consumers. Finally, the samples consisted of only Gen Y consumers enrolled in colleges. Even though there has been no evidence showing any significant differences existing between Gen Ys going to college and Gen Ys not enrolled in college, the findings of this study should be applied with caution to a general population.

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