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The primary objective of this study was to examine how Generation Y (Gen Y) consumers perceive the value of salon hair coloring in China versus in the United States. An in-depth literature review of consumer perceived value (CPV) suggested a paucity of existing research on this topic. A preliminary qualitative study using in-depth interviews was used to explore the potential similarities and differences between Gen Y consumers in China and in the United States in terms of perceived value relative to salon hair coloring. Based on the findings from the qualitative study and the intensive literature review, a survey was developed to measure 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 China and the United States.

One thousand four hundred surveys were disseminated, 700 in China and 700 in the United States, resulting in 449 usable surveys, an overall 32.1% response rate. Statistical results indicated that Gen Y consumers in the two countries demonstrated different levels of the value dimensions investigated. When comparing the two samples, 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. When looking at how consumer perceived value was influenced in the two countries individually, quality value and monetary cost appeared to be the most important

dimensions for Chinese Gen Y consumers, while emotional value and monetary cost appeared to be the most important dimensions for US Gen Y consumers.

The study results imply that retailers targeting China and the United States may need to use different marketing strategies to ensure that the perceived value dimensions most salient to their specific consumers can be emphasized. Although the findings of this research are market specific, they have important implications for general consumer perceived value research. For example, the results suggested that the proposed model for CPV in this study may be useful to apply in CPV studies looking at other product categories and other age demographics in other cultural settings.

CONSUMER PERCEIVED VALUE OF SALON HAIR COLORING:  
A CROSS-CULTURAL COMPARISON OF GEN Y COHORTS  
IN CHINA AND THE UNITED STATES

by

Xin Zhao

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Approved by

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Committee Co-chair

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Committee Co-chair

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To my dearest parents in China

APPROVAL PAGE

This dissertation has been approved by the following committee of the  
Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Co-chair \_\_\_\_\_

Committee Co-chair \_\_\_\_\_

Committee Members \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
July 5, 2006  
Date of Acceptance by Committee

\_\_\_\_\_  
July 5, 2006  
Date of Final Oral Examination

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# **CHAPTER I**

## **INTRODUCTION**

Chapter I presents the following major sections: (1) Importance of the Research Problem; (2) Background of the Hair Care Industry; (3) A Brief Review of the Relevant Literature; (4) Gaps in the Literature; (5) Statement of the Research Questions; (6) Research Objectives; (7) Research Assumptions; (8) Conclusion; and (9) Definition of Terms.

### **Importance of the Research Problem**

Hair has always been considered an important part of the body with strong social and cultural significance (Kaiser, 1997). As a part of the body, it is unique in that it can be readily manipulated to change an individual's appearance—even radically. Research has found that virtually all societies, from less advanced to highly advanced cultures, have dealt with the hair as a form of expression (Hoebel, 1958). Thus, it is not surprising that in modern societies, hair care activities are so multifarious and prevalent across cultures that the hair care industry, an industry with almost \$47 billion in annual sales, has become the largest segment of the cosmetics industry, generating almost a quarter of the industry's market share (Weber & Villebonne, 2002). Specifically, hair coloring comprised the second largest category of hair care in 2004—next to shampoo (Euromonitor, 2005).

From a consumer perspective, the hair coloring category is growing in importance both for older and younger consumers. As pointed out by Moore (2005), while growing old gradually and accepting nature's changes in hair color was a mantra of the past, more women today, as well as men, are turning to hair coloring to cover their gray and to remain youthful-looking. At the same time, manufacturers are making an effort to target the younger generation as a very lucrative market. This means leading manufacturers are providing a wave of fashionable, strong, and bright colors to tempt this nontraditional market of younger consumers into experimenting with hair color.

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 basis. Despite hair coloring's impact on the hair care industry and on consumers, little is known about this important product category and how consumers value it in general. Furthermore, even less is known about hair coloring and its value to consumers from a cross-cultural perspective.

### **Background of the Hair Care Industry**

The hair care industry, a segment of the global cosmetics industry, leads that industry with 22 percent of market share, followed by the skin care segment and the makeup/color segment, with 16 percent and 13 percent respectively (Weber & Villebonne, 2002). In addition, according to Euromonitor (2005), the hair care segment grew by 10% in 2004, a considerable improvement on the review period

compound annual growth rate (CAGR) of 5%. However, expansion of hair care sales in 2004 was restricted to a certain extent by the flat performance of the largest US market, where a prolonged weak economic climate has had a negative impact on consumer confidence. Moreover, intense competition and low levels of brand loyalty caused many manufacturers to reduce unit prices, which limited value gains to a certain degree.

Hair care products include the following product categories: 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, as shown in Table 1.1, hair coloring comprised the second most profitable area of hair care in 2004, with sales of US\$ 9 billion. The sector was also one of the main drivers of growth during the year, with sales increasing by over 10%. Growth was driven by the strong performance of key emerging markets, such as Brazil. It was also marked by the launch of more expensive, better quality products, such as peroxide- and ammonia-free formulae. However, again in the leading US market, the extended period of economic uncertainty forced consumers to trade down in their purchases, which caused sales of hair coloring to decline for the second consecutive year in 2004.

Table 1.1  
10 Major Cosmetics Markets (in US \$ million)

<b>Country</b>	<b>Total Cosmetics Market Value</b>	<b>% of Global Market</b>	<b>Hair Care Market Value</b>	<b>% of Global Market</b>	<b>Hair Care Expenditure Per Capita</b>	<b>Hair Coloring Market Value</b>	<b>% of Global Market</b>	<b>Population (million)</b>
World	230,897.45	100.00	46987.66	100.00	7.41	9,002.05	100.00	6341.11
USA	45,370.60	19.65	9573.28	20.37	34.00	1,653.29	18.37	281.60
Japan	21,925.80	9.50	5688.45	12.11	44.76	841.09	9.34	127.10
France	14,034.30	6.08	2492.84	5.31	41.90	817.55	9.08	59.50
Germany	12,387.41	5.36	2630.09	5.60	32.15	676.21	7.51	81.80
UK	11,618.45	5.03	2525.43	5.37	42.30	399.76	4.44	59.70
Brazil	9,755.93	4.23	2800.58	5.96	16.01	847.58	9.42	174.90
Italy	9,527.22	4.13	1582.73	3.37	27.29	335.98	3.73	58.00
China	8,234.56	3.57	1602.04	3.41	1.23	20.76	0.23	1306.10
Spain	6,886.69	2.98	1170.05	2.49	29.55	231.94	2.58	39.60
Russia	6,442.92	2.79	1283.9	2.73	9.01	449.87	5.00	142.50

Source: Euromonitor (2005), 2004 data.

In 2004, manufacturers continued to explore the increasing sophistication of consumer demand by further segmenting the market according to factors such as hair type (oily, dry, and damaged), treatment benefit (anti-fading, anti-ageing, and sun protection) and styling solution (straight hair and big bouncy hair). In the United States, shampoos and conditioners for color-treated hair have long been important for consumers who were concerned about the effects of repetitive colorings or wished to maintain their color for as long as possible. In the longer term, however, there is a danger that the hair care sector will encounter the problem of over-segmentation (Euromonitor, 2005). With hundreds of brands to choose from, consumers will become increasingly confused as to which product has the right value for their needs. Hence, the study of consumer perceived value relative to hair coloring is particularly warranted.

### *Cultural Consumption of Hair Coloring*

One way of better understanding the broader, or global, scope of hair coloring would be to consider its relevance to Eastern versus Western consumers. China comprises the world's largest population and has traditionally represented what is collectively known as "the East." The United States, the world's largest economy, is for many the prototype of "the West." 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).

#### *China*

Until recently, a wide variety of consumer goods (e.g., hair colorings) was simply not available to the average Chinese citizen, and consumption of goods and services was very limited (Kim, Forsythe, Gu, & Moon, 2002). However, a strong consumer market has been developing in China since its significant social and economic changes in recent years (Chan, 1995). Chinese consumers are showing an increasing purchasing power for a wide variety of non-staple consumer goods, including hair coloring. Sales of consumer goods in modern retail outlets even reached 40 percent of total sales volume in China in 2000, resulting in falling prices of general consumer household goods (Chang, 2001). According to Datamonitor (2004a), in 2003 China remained the second largest hair care market in the Asia-Pacific region after Japan and accounted for 13.1% of regional hair care product sales. In terms of dollar

volume, the Chinese hair care market reached a value of \$974 million in 2003 with a CAGR of 6.2% in the 1999-2003 time period.

The hair care market in China has been dominated by the shampoo segment, which accounted for 66.4% of sales in 2003, while the second largest segment was the styling agent segment which accounted for 26% of sales (Datamonitor, 2004a). The remaining 7.6% of the hair care market was hair coloring. The lack of sales in the hair coloring sector suggests a huge potential for growth. Ayckroyd (1998) predicted that the real growth for the global cosmetics industry would come from developing countries with growing and largely untapped markets, instead of from developed and mature markets like the United States, Europe, or Japan. In China alone there are 800 million people in rural areas that have had no access to household products and should represent a vast potential market for affordable hair care products.

According to Li (2003), there were approximately 2,000 domestic and foreign hair care product manufacturers competing in the Chinese market, including over 200 hair coloring producers. 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 has not been dominated by either type of company. This situation means the barriers of entry to the Chinese market are not high for smaller or local companies as long as they have the ability to compete in their own area (Datamonitor, 2004a). Table 1.2 presents the

10 largest hair care producers that accounted for almost 67% of the Chinese market in 2004.

Table 1.2  
10 Largest Hair Care Producers in the Chinese Market

<b>Company</b>	<b>Market Share (%)</b>	<b>Major Brands in the Chinese Market</b>
Procter & Gamble (Guangzhou) Ltd.	29.1	Rejoice, Pantene Pro-V, Head & Shoulder/Vidal Sassoon.
C-Bons Groups	15.3	S-Dew, Slek, Maestro, Hair Song.
Unilever China Ltd.	9.7	Hazeline, Lux.
Shanghai Huayin Co. Ltd.	4.5	Bee & Flower.
Kao (China) Holding Co.	3.5	Sifone, Feather.
Amway (China) Co. Ltd.	2.3	Amway.
Chongqing Olive Cosmetics Co. Ltd.	0.9	Olive.
Youngrace Cosmetic Group Int. Ltd.	0.5	Youngrace.
Henkel China Ltd.	0.5	Dep, Guang Ming.
L'Oreal China	0.4	Elseve, Excellence.
<b>TOTAL</b>	<b>66.7</b>	

Source: Euromonitor (2005a), 2004 data, and Li (2003)

### **United States**

US consumers are reported to be more style-conscious than ever before (Moore, 2005). For instance, baby boomers of both sexes, facing graying hair, are trying a range of hair care products to help them look and feel younger. At the same time, Generation Ys (Gen Y) are even more adventurous than their parents, as they change hairstyles and hair colors at will. According to Datamonitor (2004b), in the year 2003 the United States remained the largest hair care market in the world and accounted for 23% of global hair care product sales. In terms of dollar volume, the US hair care market reached a value of \$6.51 billion with a CAGR of 3.5% in the

1999-2003 time period. The US market is also dominated by the shampoo segment, which accounted for 47.2% of sales. The second largest segment, unlike the Chinese market, was hair coloring, which accounted for 33.8% of sales in 2003. The remaining 18.9% of the market was styling agents. As in some other highly developed countries (e.g., Japan), the hair coloring sector has shown the highest growth rates. In fact, more than 50 percent of US women over the age of 25 adjust the natural color of their hair (Cardona, 1999).

The US hair care market is a relatively consolidated industry with three major companies, Procter & Gamble (and its recent acquisitions of Clairol, Inc. and Wella), L'Oreal, and Unilever dominating the market with more than 10% market share respectively (Datamonitor, 2004b). Together, these three companies accounted for almost 60% of the US hair care market in 2004, as shown in Table 1.3.

Table 1.3  
Three Largest Hair Care Producers in the US Market

<b>Company</b>	<b>Market Share (%)</b>	<b>Major Brands in the US Market</b>
Procter & Gamble Co.	24.5	Pantene Pro-V, Clairol Herbal Essences, Head & Shoulders.
L'Oreal USA Inc.	24.2	Matrix, Redken, Preference, Garnier Fructis, Excellence, Vive.
Unilever Home & Personal Care USA	10.8	Suave, Dove, Thermasilk.
<b>TOTAL</b>	<b>59.5</b>	

Source: Euromonitor (2005b), 2004 data, and Li (2003)

### *A Two Country Comparison*

The differences and possible similarities between China and the United States are not only of interest to academics, but also to marketing practitioners. Based on the Euromonitor Database, in 2004 the Chinese population was 1.3 billion and the US population was 281.6 million. Although China is more than four times the size of the United States in terms of population, US expenditures on hair care were more than six times that of China. Moreover, when it comes to hair coloring consumption, the difference would be even more significant. Table 1.4 shows a comparison of the population profile for the two countries, including the Gen Y cohort.

Table 1.4  
Population Profile for China and the United States (in millions)

<b>Country</b>	<b>Gen Y<sup>a</sup> (15-29)</b>	<b>% of Total Population</b>	<b>Total Population</b>
China	295.8	23 %	1306.10
USA	58.4	21 %	281.60

Source: Euromonitor (2004), 2004 data.

Note: <sup>a</sup> Proximation for Gen Y

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, Zhou, Nicholls, Zhuang, & Kranendonk, 2004). US consumers, who have often been characterized as consumption-driven and materialistic, i.e., valuing the acquisition of possessions (Richins & Dawson, 1992), have focused more in recent years 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, Horn, & Merritt, 2004).

The young consumer market for hair coloring is particularly interesting for several reasons: (1) hair coloring provides an easy way for young consumers to experiment and express their individuality, although media and celebrity endorsements are influential in determining which trends consumers follow; (2) Gen Y is a particularly dynamic demographic for hair coloring, with considerable income at its disposal (Euromonitor, 2005); and (3) especially in China, the Gen Y consumer is a totally different group compared to the other generations because most of them are the only child in the family and have more financial support from their parents and grandparents. Compared with 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).

In terms of hair coloring consumption, it appears that a big difference exists between Gen Y consumers in China and those in the United States in terms of where and how Gen Y consumers get their hair colored. Specifically, the Chinese Gen Y group appears to have a strong preference for salon hair coloring instead of using products to color the hair at home. In fact, few of them have even tried doing their hair coloring at home. However, for the US Gen Y group, coloring the hair at home appears to be as popular as getting professional service in a salon. Most of these young American consumers have at least some experience with hair coloring at home. Based on this understanding, the current study focused only on salon hair coloring to explore Gen Y consumers' perceptions of value for this consumption behavior in China and the United States.

### **A Brief Review of the Relevant Literature**

Research has shown that the human body has been the focal point in anthropology since the 19<sup>th</sup> century; while in recent years, the body has also drawn attention from a number of other academic fields, such as philosophy, sociology, psychology, and biology (Turner, 1996). For example, in sociology, it has been argued that the body can be seen as the medium of culture that reflects the shared

attitudes and practices of social groups (Banks, 2000). For the past two decades, the major focus in the sociological study of the body has been the concept of body image.

As a natural part of the body, hair is an important part of the body's social and cultural significance. Hair length, color, and style play an important role in people's self-perceptions of their bodies, as well as in how others perceive them (Kaiser, 1997). It has been argued that hair meanings are culturally specific, for example, African Americans would put different importance on hair than Caucasian Americans (Banks, 2002) or American consumers in general would have different perceptions about hair than Chinese consumers. In other words, hair has both a social and cultural context when associated with perceptions of beauty.

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 important overview of the actual 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).

One popular way of adorning the body has been the application of cosmetic products. Research has shown that the wearing of cosmetics by women in Western culture has been under discussion for decades (Tseelon, 1995). It was found that cosmetics can be used not only to help achieve physical attractiveness, but also to make people feel good about themselves, which is especially true for women (Graham & Jouhar 1982). However, a review of the literature on cosmetics products in the consumer behavior domain reveals that little attention has been directed at this product group by academic researchers even with its extensive usage in consumers' daily lives—especially in the case of hair care products. Furthermore, not enough attention has been paid to male consumers in this consumption area although it has become more obvious that male consumers make up an important potential market for cosmetic products.

Given the importance of hair as a vehicle of adornment and building social advantage, it is important to understand how consumers perceive the value of hair coloring. The construct of consumer perceived value (CPV) refers to judgments or assessments of the overall value a consumer perceives he/she gains when considering what is received versus what has been given up in the marketplace exchange. It has

been argued that value for consumers could be the next major source for organizations to compete in a more challenging environment (Woodruff, 1997). The literature suggests, that the knowledge about customer value has been growing, especially since the 1990s. However, the theoretical base is still fragmented, lacks clarity, is comprised of a variety of research streams, and has no widely accepted theories. Moreover, a deficiency exists of measurement scales for consumer value due to value being a highly abstract, multi-dimensional concept that is interrelated and easily confused with the concepts of quality, benefits, and price (Zeithaml, 1988).

At this point in the development of the CPV research area, empirical studies are limited. Furthermore, the majority of CPV studies have been carried out in either a US setting or a developed nations setting, with few applications in developing nations. Most of the findings have suggested that CPV may be even more important than consumer satisfaction in deciding behavioral intentions/consequences (Tam 2004). Moreover, it has been found that consumers' perceptions of value vary across types of products investigated, the types of services provided, and across cultural settings, all of which warrants further investigation of CPV in a variety of contexts (Swait & Sweeney, 2000).

### **Gaps in the Literature**

The preceding review of relevant literature indicated the following gaps in the literature:

1. Little research attention has been directed at appearance-related product categories, including cosmetics, jewelry, and clothing, especially with male consumers;
2. In the consumer perceived value research area, there is no study relative to Chinese consumers, and there have been very few cross-cultural studies in CPV (see Overby, Gardial, & Woodruff, (2004, for one exception);
3. There has been little effort directed at academic research on Gen Y cohorts and even less on Chinese Gen Y cohorts; and
4. There has been no study specifically on consumer perceived value for the appearance-related product categories.

### **Statement of the Research Questions**

In response to the identified gaps in the literature, this study asks the following research questions: (1) Do Gen Y consumers perceive the value of salon hair coloring differently in China versus the United States? and (2) What dimensions of perceived value most influence Gen Y consumers' overall perceptions of value for salon hair coloring relative to what they give versus what they receive?

### **Research Objectives**

The specific objectives of this study were:

1. To explore what Gen Y consumers perceive as value in salon hair coloring and its consumption by using in-depth interviews as a primary data collection tool;

2. To develop a conceptual model of consumer perceived value for salon hair coloring by adopting and modifying the Sheth, Norman, and Gross (1991) framework;
3. To determine how Gen Y consumers' perceptions fit into the developed framework by applying it to two populations using the survey method; and
4. To compare two different Gen Y consumer groups, in China and the United States, in terms of their value perceptions of salon hair coloring.

### **Research Assumptions**

Key basic assumptions for this study were:

1. The survey instrument developed in this study measured adequately all conceptual constructs and variables under investigation;
2. Participants provided information that best reflected their real perceptions and behaviors instead of trying to give the "right" answer;
3. Cohort classification and analysis were meaningful;
4. Defining Gen Y as people born between 1977 and 1994 was a valid approach to categorize this cohort group; and
5. Surveys distributed among college students could obtain representative and relevant information about the Gen Y population under study.

### **Conclusion**

As briefly outlined in the preceding section, existing consumer perceived value research is fragmented and in need of further redefinition and development of

concepts and constructs that are capable of explaining and predicting consumer consumption behavior. This study sought to add to the existing body of consumer perceived value research by defining and testing constructs that can be useful for understanding different consumer groups' evaluations of salon hair coloring. It was intended to fill a gap in our knowledge about salon hair coloring consumption and to add to a meaningful foundation for studying appearance-related products in general. In addition, given that this study was built on a developed conceptual model to explain consumer perceived value, it adopted measurements of previous research in western cultural settings and assessed the validity of those measures within a new cultural setting (i.e., in China).

The remainder of this dissertation is structured in the following way: Chapter II presents the theoretical background of this study and a review of literature, including the importance of body and hair, the theory of adornment, and consumer perceived value; Chapter III lays out the methodological approach of the study; Chapter IV details the procedures of analyzing the study data and presents the statistical results of the data analysis; and Chapter V concludes with the implications of the study from both academic and business perspectives.

### **Definition of Terms**

**Adornment** Any decoration or alteration of the body's appearance (Kaiser, 1997).

<b>Cohort</b>	Proposed group of individuals who were born during the same time period and who experienced similar external events during their formative or coming-of-age years (i.e., late adolescent and early adulthood years) (Ryder, 1965).
<b>Consumer Perceived Value (CPV)</b>	Judgments or assessments of the overall value a consumer perceives he/she gains when considering what is received versus what has been given up in the marketplace exchange.
<b>Cosmetics and Toiletries</b>	The aggregation of baby care, bath and shower products, deodorants, hair care, color cosmetics, men's grooming products, oral hygiene, perfumes and fragrances, skin care, depilatories, and sun care. ( <a href="http://www.gmid.euromonitor.com/Reports.aspx">http://www.gmid.euromonitor.com/Reports.aspx</a> )
<b>Culture</b>	A system of interrelated perceptions, beliefs, values, and institutions that together shape the conscious and unconscious behavior of that system's constituent members. It is a fundamental determinant of human behavior (Smith, 1983).
<b>Generation Y (Gen Y)</b>	People born between 1977 and 1994 (Morton, 2002).
<b>Hair Care Products</b>	A category of products including shampoo, 2-in-1 products, conditioners, styling agents, perms and relaxants, hair colorants, and salon hair care. Ethnic hair products are included across all subsectors. Excluded are hair accessories such as hair extensions, hair clips, combs, and brushes. ( <a href="http://www.gmid.euromonitor.com/Reports.aspx">http://www.gmid.euromonitor.com/Reports.aspx</a> )
<b>Hair Coloring</b>	A category of products that color hair, including permanent, semi-permanent, and tone-on-tone coloring products, as well as bleaches, lighteners, highlighters, temporary rinses, color mousses, color restorers, and manufactured henna colorants. Excluded are shampoos, 2-in-1 products, mousses or conditioners with color enhancing properties whose primary function is washing. ( <a href="http://www.gmid.euromonitor.com/Reports.aspx">http://www.gmid.euromonitor.com/Reports.aspx</a> )
<b>Perspective</b>	A larger framework for organizing knowledge and directing inquiry, guided by a system of values, beliefs, and meaning that provide a framework and a point of view for study (Kaiser, 1997).

**Physical Attractiveness** A cultural standard of beauty involving an assessment and evaluation of aesthetic quality based on body type, hair texture, skin color, and facial features (Parmer, Arnold, Natt, & Janson, 2004).

**Theory** A set of ideas that describe, explain, and predict outcomes and relationships, as well as guide the development of research hypotheses (Kaiser, 1997).

## **CHAPTER II**

### **LITERATURE REVIEW**

Chapter II presents the following major sections: (1) Introduction; (2) The Importance of the Body; (3) The Importance of Hair; (4) The Contextual Perspective and the Theory of Adornment; (5) Physical Attractiveness and Social Advantage; (6) Consumer Background; (7) Research on Cosmetic Products; and (8) Consumer Perceived Value (CPV).

#### **Introduction**

The purpose of this study is to compare consumer perceived values between Gen Y consumers in China and those in the United States relative to their consumption of salon hair coloring. The popularity of hair coloring in today's markets in China and the United States is driven by consumer wants and needs for adornment. Research has found that the phenomenon of "beauty is good" exists in different aspects of social life in both Eastern and Western culture (Cash & Henry, 1995; Chiu & Babcock, 2002). As an important part of the human body, hair plays a unique role in reaching a state of beauty and showing physical attractiveness. Theory suggests that physical attractiveness is closely related to social advantage, which then drives people to adorn themselves including using hair coloring to change their hair and overall appearance (Kaiser, 1997).

To understand better the importance of hair coloring to consumers, a thorough understanding of the theoretical foundations that help to explain this consumer behavior is needed: the importance of the body, the importance of hair, the contextual perspective and the theory of adornment, as well as physical attractiveness and social advantage. These theoretical perspectives form a foundation for understanding the consumers of interest, extant research on cosmetics products, consumer perceived value, existing knowledge about hair coloring behavior, and the possible gaps in these areas.

### **The Importance of the Body**

Historically, the body was the academic domain of anthropology. However, in recent years, the body as a research focus has drawn attention from a number of other academic fields, such as philosophy, sociology, psychology, and biology.

Philosophically, the body is argued to be: (1) the starting point, because it is where all social life begins and participation in the world is expressed (Atkins, 2000; Gimlin, 2004, p. 14), which is to say “rather than being ‘an object in the world’, the body forms our ‘point of view on the world’” (Entwistle, 2000, p. 28); and (2) the center of the modern conception of self in the sense that the body is where the social meets the individual and from which the self is created (Atkins, 2000; Markus & Wurf, 1986). Logically, the body can indicate who an individual’s self is, what habits the individual has, what social values the individual holds, and more. Research has indicated that physical appearance/body affects one’s sense of self, personal growth, and social

acceptance—in particular during certain life stages such as adolescence and young adulthood (Kostanski & Sallechia, 2003).

Sociologically, the body can be seen as the medium of culture that reflects the shared attitudes and practices of social groups. Also, it can be seen as the surface through which social and cultural ideas are transmitted (Banks, 2000, p. 4).

Therefore, the body can reveal differences among groups in terms of cultural notions based on age, ethnicity, gender, and social class (Gimlin, 2002, p.14). The prominence of and the emphasis on the body have led to a variety of conceptual and theoretical approaches which have been recorded extensively in Turner (1996). He observed that the human body has been the focal point in anthropology since the 19<sup>th</sup> century because of the development of philosophical anthropology, as well as a natural anthropology that dealt with the relationship between nature and culture.

Gimlin (2002) questioned the prevailing norms concerning the body for different genders, using the term “body work” to identify individual’s activities to alter the body and to conform to the prevailing ideal image. This research advanced study about the body with relation to women by presenting the meanings of “body work” women themselves hold and apply in their daily lives. Gimlin (2002) examined four institutions related to body works—a hair salon, an aerobics class, a plastic surgeon's office, and a social and political organization for people who were overweight. The body was reconfirmed to be important to both genders, but for women, it was found to be especially important to use the body as the primary indicator of self to the outside

world. Women were found to spend substantial resources on beauty products, join groups organized around altering their appearances, and to engage actively in work designed to “repair the flawed identities that imperfect bodies symbolize” (Gimlin, 2002, pp. 5-6). At the same time, women were found to be “savvy cultural negotiators” who actively submitted to social norms.

The major focus in the sociological study of the body for the past two decades has been the concept of body image. Body image has been typically referred to as perceptions and attitudes individuals hold about their bodies (Davison & McCabe, 2005). A number of studies have focused on the relationship between body image and disturbed dieting behavior. Among them, Cotterill (1981) was one of the earliest to draw attention to the fact that dissatisfaction with body image could be the source of great unhappiness or even the cause of death. In the study, Cotterill (1981) treated 28 body “dysmorphic” patients who showed dermatological symptoms with no diagnosable disease. Some of the symptoms included itching, burning and redness, while others involved hair loss, body hair, and the shape of the nose. Ultimately, three patients attempted suicide (one successfully), two developed schizophrenia, and two were found to be suffering from dementia. Later, more studies supported Cotterill’s 1981 findings. For example, indications have been found that young women who report dissatisfaction with their physical appearances are at a greater risk of experiencing symptoms of depression or anxiety (Koenig & Wasserman, 1995; Mintz & Betz, 1986).

Although there is growing awareness in research on the body, the associations between body image and psychological, social, and sexual functions for different populations are still not well understood. Davison and McCabe (2005) in an innovative study conceptualized body image from a number of different aspects and used multiple gender-sensitive instruments to understand the different roles played by various aspects of body image. The study extended the participants to include adult men and women throughout the community, rather than focusing only on college students as most other studies have done. The results demonstrated the importance of considering multiple measures of body image, pointing out that aspects of body image, particularly concerns about how others may evaluate one's body, are a particular area that requires further research.

### **The Importance of Hair**

As a natural part of the body, hair has social and cultural significance. As early as can be traced in the history of civilization, the human race engaged in hair ornamentation, given that hair is a feature of the body over which people exert direct control. Hair length, color, and style play an important part in people's physical appearance to others and to the self. Hair can be readily altered according to how individuals wish to appear. The condition and style of hair play a role in this controlled appearance so that it is not only a matter of beautification and decoration, but also a representation of social standing in different cultures (Kaiser, 1997). The

most common representation involving hair is gender. In general, within a society, males and females have different ways of fixing the hair (Hoebel, 1958).

Hair theory can be mainly attributed to anthropologists and psychoanalysts (Powell & Roach, 2004). In the anthropology area, one of the earliest and seminal studies is Frazer's (1963) twelve-volume compendium *The Golden Bough: A Study in Magic and Religion*. He used the comparative method to bring together the beliefs and practices of many people, from which conclusions were drawn across cultures. For example, in the opinion of many peoples, the head is the seat of the spirit, an area very sensitive to injury or disrespect. From this cultural perspective haircutting is a procedure full of threat. If the hair has to be cut at all, the cutting should be performed sacrificially and the cut-off hair reverently preserved, a custom widely practiced around the world. Although Frazer's method may be obsolete, his work has inspired more recent anthropologists to use data from on-the-ground ethnographies to develop their theories (Leach, 1958; Hallpike 1972).

In the early stages of theory development in the psychoanalysis area, a few studies have discussed the symbolism of hair. The first was Freud's (1922) widely cited essay *Medusa's Hair*, which developed the symbolic meaning of hair in unconscious sexuality. Freud made a seminal note that Medusa's mouth and hair symbolize the female genitals and therefore can create anxiety in males. Taking it one step further, Berg (1951), based on ethnographic evidence, concluded that hair is a phallic symbol and further generalized this symbolism to both genders and all

cultures. However, some recent studies have challenged Berg's generalization of hair symbolism in different circumstances. Eilberg-Schwartz and Doniger (1995) cite Lang and Delaney as arguing that the meanings of hair are different in terms of gender and cultural contexts.

The argument that hair meanings are culturally specific has been supported by a recent significant work on the topic of hair (Banks, 2002). Banks stated that African American women have a specific consciousness about hair that is greater than other races. The women she interviewed discussed hairstyles from the past to the present, viewing the world culturally, socially, historically, and politically through the hair. Some hinted that hairstyles could be restrictive in their community relationships. For instance, African American women and men would restrain from interacting with an individual whose hair was considered nappy. Nappy hair was not just about curly hair, it was about the naturalness (hair that closely resembles African styles) associated with the curls that gave nappy hair a derogatory connotation. Choices of hairstyles have changed over time in the African American community, but the connotations associated with nappy hair have not. The book fully supported the notion that hair has both a social and cultural context when associated with perceptions of beauty.

In terms of functionality of hair, Hallpike (1972) argued that hair can embody social control. For instance, soldiers and prisoners wear short hair because of its functional benefit in combat and confinement. However, at certain times in the

history of grooming, fuller hair represented a larger claim to social power.

Hallpike's arguments appear to have only limited validity for the culture and the era in which they were generated (Storm, 1987). McCracken (1995) compared consumer economies in different periods and noted the historic similarity between "big hair" in the late twentieth and late eighteenth centuries. In each period, he argued, the economy of "big hair"—including the labor to produce it and the leisure to wear it—offers a prime example of "surrogate consumption," the adornment of mates or chattels to express the wealth and indulgent largesse of the spender.

Today, the primary function of hair, according to Newman is that of adornment (Gross, Stone, & Newman, 1994). In reality, hair can be changed to look different from one day to another. Cooper (1971, p.7) years ago contended that hair is an "easily controlled variable that can denote status, set fashion, or serve as a badge." As with the body, hair carries an individual's personality and self, which can be seen as part of the reason that consumers are willing to invest time and money on their hair everyday. In fact, studies like Dunton (1999) found that hair care activities dominated the grooming behavior of young adults 18 to 25 years of age.

Hair coloring, according to Gurel (1979), is one form of body painting. The practice of hair coloring has a long history. For instance, in Renaissance times, blondes were regarded as more fun and bleaching as well as dyeing hair were in practice. In ancient Greece, artificial red heads were found depicted by the statuary on damaged temples, e.g., the Maidens of the Acropolis. It is no wonder that

millions of dollars are spent on hair preparation annually around the world. It has been argued that the increased acceptance of hair coloring in 1960s did more to make the cosmetic business increase than any other single factor (Britton, 1978).

### **The Contextual Perspective and the Theory of Adornment**

Kaiser (1997) introduced a contextual framework to explore how people manage and perceive appearance (including hair) in everyday life. For the current study, in order to understand the social and cultural meanings of hair and its potential to change the appearance, three perspectives from Kaiser (1997) were used to inform the contextual framework—the cognitive, the symbolic-interactionist, and the cultural perspectives. Specifically, the cognitive perspective focuses on how an individual's thinking process leads to social perceptions. The symbolic-interactionist perspective focuses on the aspects of symbolic appearance, dealing with self and social interaction. The cultural perspective considers appearance symbolism in a given society with shared beliefs and values.

The three perspectives each have unique approaches, which when combined, can provide the big picture for considering the actual social and cultural situations where people deal with appearance-related pursuits. In this case, the contextual framework enables researchers to study hair not only from the individual's viewpoint, but also from a shared viewpoint within a given culture or society. Culture is one larger context within which hairstyles arise and influence social processes, which in turn are

influenced by and at the same time influence the individuals involved (Kaiser, 1997, p. 60).

In the combined 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). The Theory of Adornment refers to the decorative nature of clothes and other forms of appearance modification for purposes of display, attraction, or aesthetic expression (Kaiser, 1997). This theory is argued to be the most widely accepted theory to explain why human beings first dressed themselves (Storm, 1987) (with dress defined as any appearance modification made of the human form). Therefore, the act of adorning implies putting on clothing, accessories, and makeup, as well as manipulating hairstyles and hair colors. For example, in ancient Rome, hair was a major determinant of a woman's physical attractiveness, which would vary along with looks, a woman's age, social status, and public role. This variety has been found to be very useful in identifying historical figures, thus enabling scholars to construct a chronology of Roman art (Bartman, 2001).

Sociologically, adornment is a social concept based on receiving positive reactions from others and being practiced often enough to be perceived as the norm. As pointed out by Storm (1987), there are two types of adornments, corporal and external. Corporal adornment is the permanent type which actually alters the body and therefore requires more commitment. Major forms of corporate adornment include removal of body parts, tattooing, piercing, cicatrisation, and contortion.

Based on research findings, this is most common in societies with rigid and stable social systems. In contrast, external adornment is more temporary and can be removed or changed readily. The major types under this category are paint and makeup, which include hair coloring. Specifically, head hair is very important from an adornment perspective because it can involve both corporal adornment, such as hair cutting, and external adornment, such as hair coloring (Storm, 1987). Overall, adornment meets four important psychological needs of human beings: (1) to enhance self-esteem; (2) to increase the sense of belonging to a group; (3) to increase confidence; and (4) to improve self-concept.

A number of researchers have argued that the usage of adornment is effective in enhancing physical attractiveness (Cash 1987; Bloch 1993). However, the discussion of adornment in extant consumer behavior literature is limited. A few exceptions include Bloch's 1993 study of adornment activity as leisure behavior. According to Bloch (1993), many people get highly involved with adornment because society highly values physical attractiveness that can be pursued by adornment. He argued that many of these adornment-related activities are actually significant forms of recreation, which means that paying attention to one's physical appearance serves as a source of pleasure. For example, experimenting with new grooming techniques, discussing adornment usage with friends, and obtaining information pertaining to adornments can all be considered adornment-related recreational pursuits. 364 female undergraduates were surveyed to explore the recreational aspects of

self-adornment activities (Bloch, 1993). Results showed that the levels of social influence and self-perceived attractiveness were effective predictors of such activity.

Although adornment is expected to enhance physical attractiveness to all members of society, its application is regarded to be much more salient to females than to males. Research has shown that gender differences are apparent in levels of involvement with adornment (Soloman & Douglas, 1985). Therefore, hair-coloring activities pertaining to adornment are assumed to be more common among females.

### **Physical Attractiveness and Social Advantage**

Throughout history the criteria for human beauty have varied across cultures and time. These socio-cultural standards to evaluate individuals in a given society make social life predictable and possible (Bredemeier & Toby, 1960). In behavioral science, the concept of physical attractiveness has been a focal topic for some social phenomena, such as dating, sexuality, and different types of relationships (Campbell, 2005). Physical attractiveness is defined as a cultural standard of beauty involving an assessment and evaluation of aesthetic quality based on body type, hair texture, skin color, and facial features (Parmer, Arnold, Natt, & Janson, 2004). Ideals of attractiveness continually confront people in the modern world, which is obvious in advertisements featuring good-looking models, as well as in the rich career opportunities/outcomes for those who are more attractive. Media stereotypes reinforce the notion that physical attractiveness is an important characteristic, especially for females (Bloch, 1993). For example, Rich and Cash (1993) used

archival investigation to examine the depiction of women's beauty with respect to hair color, especially bloneness (a feature of physical attractiveness for women). They used media images from two popular women's magazines and *Playboy* magazine from the 1950s to the 1980s. Results revealed that the percentage of blondes in each magazine exceeded the base rate of blondes in the norm group.

Research in many other disciplines, such as psychology, marketing, sociology, education, nursing, and healthcare, all have approached different aspects of attractiveness in order to understand the phenomenon of "beautiful is good" (Rosezell, Kennedy, & Grabb, 1989). The peak period for this research topic started in the 1970s and continued throughout the 1980s and 1990s. Nearly 400 articles on physical appearance were published in the 1990s (Chiu & Babcock, 2002). The literature revealed *two* perspectives on attractiveness (Lavin & Cash, 2001): (1) the social psychological perspective which views attractiveness as a social stimulus variable that has certain effects on interpersonal processes; and (2) the clinical-personality perspective which focuses on the self-view of attractiveness, with body image as the core construct.

With regard to the first perspective on attractiveness, a body of research has suggested that there is a close relationship between physical attractiveness and social advantage (Adams, 1977; Adams & Read, 1983; Bloch & Richins, 1992, 1993; Dion, Berscheid, & Walster, 1972; Feingold, 1992; Goldman & Lewis, 1977; Miller, 1970). For example, Clifford and Walster (1973) observed that two salient sources of

information which may be used by teachers to form expectations of students involve attractiveness and school performance. In their study, fifth grade teachers were given standardized report cards which contained information regarding a student's grades in eight subject areas and the student's personal traits (e.g., work habits and attitudes), as well as a photograph of an attractive or unattractive boy or girl. Teachers were asked to estimate the child's IQ, social relations with classmates, parental attitudes toward school, and their level of educational attainment. Results showed that teachers' judgments regarding attractive children were more favorable than their judgments of unattractive children. These findings held equally for male and female students as well as for male and female teachers.

The consensus of most studies is that highly attractive people are more likely to gain certain social advantages than less attractive people. This knowledge is shared among different social and cultural groups. For example, Chiu and Babcock (2002) used a field experiment method to examine how job applicants were selected based on the effects of personal appearance and individual attributes. The results showed that experienced Hong Kong human resources management (HRM) specialists exhibited an attractiveness bias in the screening of applicants as they made short-listing decisions for a management trainee position. The perceived attractiveness of applicants had a higher predictive value than other selection criteria. The considerable experience of the HRM specialists apparently did not act as a constraint in neutralizing the attractiveness bias, supporting the proposition of a universal

attractiveness bias in job recruiting, despite the established fact that the definition of attractiveness varies from culture to culture.

In the second research perspective on attractiveness, more recent studies (Cash & Pruzinsky, 1990; Garner, 1997; Pliner, Chaiken, & Flett, 1990; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999) have discovered that people actually have certain difficulties in observing their own appearances as satisfying. In American society, approximately one half of women and at least one fourth of men are dissatisfied with their appearance (Cash & Henry, 1995; Garner, 1997; Muth & Cash, 1997). For example, Cash and Henry (1995) used a nationally representative sample of 803 adult women and found a “normative discontent” with their physical appearance. Body image attitudes were relatively uniform across age groups, but varied significantly across ethnic groups, with African American women maintaining a more positive body image than Whites or Latinas. Another study by Kling, Hyde, Showers, and Buswell (1999) used nearly 100,000 participants to compare gender differences in self-esteem. The results showed evidence that perception of one’s own attractiveness is correlated with self-esteem for both genders, but girls consistently reported greater dissatisfaction with their bodies than men. The study concurred with previous research that women have a higher level of involvement with adornment than men (Soloman & Douglas, 1985). One further point of interest arises from the Kling and colleagues (1999) analysis. They found that the importance women place on appearance seems to decline with age.

Not surprisingly, adornment of body and hair has often been used in the pursuit of physical attractiveness across the centuries and in many cultures (Bloch & Richins, 1992). Hair is especially valuable in the investigation of physical attractiveness and body image because it is a body part that can be readily manipulated by changing its arrangement, length, color, and/or style. It also provides an aesthetic frame for the face that can alter social perceptions of facial attractiveness (Graham & Jouhar, 1981). In today's world, physical appearance and the notion of looking young and energetic plays a greater role than ever in many cultures. Hair is not only intended to invoke gender recognition of appeal and desirability, but it has even become a factor upon which social success and career opportunities may be predicated (Trueb, 2005). This attention to hair promises a growing hair care market driven by multibillion-dollar enterprises.

### **Consumer Background**

Two of the largest consumer markets in the world are China and the United States, and these two markets offer substantial opportunities for consumer products such as hair coloring.

#### ***A Comparison of Chinese and US Consumers***

There is general agreement that Chinese culture is characterized as highly collectivistic while American culture is very individualistic (Triandis 1995). The distinction between individualist and collectivist societies is crucial to the cross-cultural understanding of consumer behavior (Sun, Horn, & Merritt, 2004). In

terms of difference, a collectivist culture pays more attention to “We-identity” and social group-esteem maintenance while an individualist one emphasizes “I-identity” and personal self-esteem enhancement (Hofstede & Bond 1984). More specifically, Chinese consumers differ from American consumers in their face consideration, which is defined as one’s desire to maintain and enhance favorable social self-worth (Yau, 1988). “Face” can normally be gained by obtaining positive comments from the interacting group or community through exemplary behavior. Therefore, in China, consumers are influenced by the needs for self-face (social approval of the individual), as well as concerns for others-face (social approval of the individual’s affiliated groups) in making decisions. Conversely, in the United States, individual consumption is more likely to reflect each individual’s own will (Zhou & Nakamoto, 2001).

With over a 1.3 billion population, China is automatically a major player in the global consumer market. In 1978, China started to implement an open-door policy, and it has achieved tremendous economic growth since then, with an annual GDP growth rate of 8 percent in recent years (Parker, Hermans, & Schaefer, 2004). Although consumers in different cultures are likely to have different levels of expectations and engage in different consumption behaviors, most research in consumer behavior has relied on theoretical frameworks developed and researched in Western societies. Academic research on the Chinese market and Chinese consumers

in still limited (Mattila & Patterson, 2004). In this sense, the need for more cross-cultural comparative studies on consumer behavior research is warranted.

Pan and Schmitt (1995) found that Chinese consumers used high profile brand names to provide security because of their limited experience with a modern free market system, rather than for symbolic or status reasons, as is prevalent in more developed economies such as the United States. This study suggested that the products and brands people buy and the benefits they desire from their purchases are all culturally based.

Li (1998) reported that compared to consumers in Western cultures, Chinese consumers, in general, put more emphasis on social and cultural values of products or services. It appears that brand consciousness is becoming increasingly important in the Chinese consumer mentality. At the same time, they are becoming more health conscious, which has led to an increasing demand for healthy and health-care products and services. In addition, Chinese consumers have been found to associate imported goods with the high fashion or high social status that they would like to experience.

Fan and Xiao (1998) investigated the decision-making styles of young-adult Chinese by using a student sample from five Chinese universities. After comparing this study to a similar study using an American sample, the results showed that the average Chinese student included in the study was not very brand conscious, but was

quite quality conscious. In addition, young Chinese consumers were neither very time conscious nor overwhelmed by information.

Sun, Chen, Fang, and Liang (2000) investigated differences and similarities in terms of consumer personalities between the United States and China based on survey data. The results showed that US consumers tend to do more comparative shopping and engage in more price-hunting, such as looking for sales.

Zhou and Nakamoto (2001) examined and compared the influences of cultural factors and marketing environments on price perceptions between young American and Chinese consumers, using college student samples. The findings showed that young Chinese consumers perceived a weaker price-quality relationship than young American consumers and that they were less price conscious and less coupon-prone than their US counterparts. Both groups, however, were value conscious.

Sun, Horn, and Merritt (2004) compared consumer lifestyles between the individualist cultures of Britain and the United States and the collectivist cultures of China and Japan. Results showed that consumers in the individualist cultures were more brand savvy, travel-oriented, financially optimistic, and satisfied with their lives. Most relevant to this study was the finding that consumers from collectivist cultures were more concerned about their personal appearance and about how they were seen by others. Specifically, they rated higher on the statement “Dressing well is an important part of my life.”

Li, Zhou, Nicholls, Zhuang, and Kranendonk (2004) compared the mall shopping behavior of Chinese and US consumers by using a random sampling method. Results showed clear differences between the two consumer groups, with Chinese consumers' mall visits driven mainly by purchase and US consumers' visits driven by diverse reasons. In addition, Chinese consumers were willing to spend a longer time on travel to the mall, but tended to spend less time in the mall than their US counterparts.

Parker, Hermans, and Schaefer (2004) examined fashion consciousness among Chinese, Japanese, and US teenagers to evaluate similarities and differences in attitudes toward fashion across these three markets. Teenagers in China were found to be less fashion conscious than those in the United States and Japan. Although US and Japanese respondents were highly similar in the level of fashion consciousness, the motives behind it for these two groups varied. It was found that teenagers in the United States tended to be much more individualistic by expressing their inner values and tastes, while those from collectivist societies (i.e. Japan and China) live up to expectations of others to avoid "losing face."

### ***Generation Y Consumers***

#### ***Defining the Gen Y Cohort***

While China and the United States in general offer opportunities for the marketing of hair coloring, one of the least understood market segments that may have significant market value to hair coloring companies is Generation Y.

“Generation Y (Gen Y) is a term used in demographics to describe a generational cohort in western societies” (*Dictionary.com*, 2005). Because many in Generation Y are the children of Baby Boomers, this generation is also known as the “Echo Boomers,” as well as other names, including the Millennial Generation. This cohort consists of those born in the 1980s and 1990s with no consensus on the exact criteria for its beginning or ending dates. Some of the criteria used include being born between 1977 and 1997 (Alch, 2001; Mininni, 2005), born after 1977 (Bainbridge, 1999; Bakewell & Mitchell, 2003), born between 1980 and 1994 (Weiler, 2004), born between 1982 and 2002 (McCleneghan, 2005), born after 1982 (Howe & Strauss, 2000), and born between 1977 and 1994 (Paul, 2001; Morton, 2002). This study uses those dates most commonly recognized among businesses for the Gen Y cohort, i.e., consumers born between 1977 and 1994.

### **Describing the Gen Y Consumer**

#### *General Knowledge of Gen Y*

Gen Y is obviously one of the largest generations and possesses significant purchasing power, thus being discussed frequently in the business literature (Maciejewski, 2004). In general, however, little scholarly effort has been directed at the Gen Y market segment to explain its particular characteristics (Martin & Turley, 2004). It is generally held that Gen Ys possess different characteristics that distinguish them from other demographic groups. The major, broad findings about this group include the following: (1) they have grown up with the new digital

economy and are comfortable with the changes associated with new technology and e-commerce on the Internet (Alch, 2001); (2) these individuals have reported greater liking of advertisements than adults and are less often offended, insulted, or misled by advertising (Shavitt, Lowrey & Haefner 1998); and (3) they tend to prefer practical, lifestyle-driven ads rather than straightforward, factual advertising (Morton, 2002).

#### *Academic Research on Gen Y*

Taylor and Cosenza (2002) used 1080 US female mall shoppers 16 to 19 years old as representatives to investigate Gen Y clothing consumption behavior. This sample was found to put great importance on self-expression. As for purchasing clothing, the style, look and fit were the three most important clothing selection criteria used by them, while brand/label received the lowest ranking. In addition, they tended to be eager for social acceptance, social affiliation and “coolness” attached to making the “right” clothing choices.

Wolburg and Pokrywczynski (2001) provided a psychographic analysis of the Gen Y college student. This study surveyed 368 18 to 24 year old US college students on their assessments of the informativeness of advertising and reported that this subgroup of Gen Y’s grew up in a more media-saturated, brand-conscious world than their parents and thus responded differently to ads. Moreover, they found Gen Y in the United States to be a more racially and ethnically diverse group, which challenges marketers to identify and understand these differences.

Martin & Turley (2004) assessed the attitudes of the older segment of Generation Y consumers (19 to 25 years of age) towards malls and their consumption motivations. The results showed that this senior group of Gen Y consumers was more motivated by objective, functional, and economic reasons. Another major finding was that this group had diverse attitudes and behaviors relative to shopping, which can be seen as a reconfirmation of the previous study by Wolburg and Pokrywczynski (2001).

#### *Academic Research on Gen Y Focusing on College Students*

Although there is little academic research directly on Gen Y, a body of literature on consumer issues has involved using college students, a sub-group of Gen Y, as subjects in the research. Among these studies, two major approaches have been used. In the first approach, college students have been used as convenience samples to represent “people in general,” or “adults.” Peterson (2001) conducted a second-order meta-analysis to assess the implication of using college students as subjects in social science research. The study found that the percentage of published studies using college students had increased from 23% from the first volume to 89% in the most recent volume of *Journal of Consumer Research*. Similarly, 86% of the empirically based articles appearing in the *Journal of Consumer Psychology* since its inception in 1992 have employed college students subjects. The final results of the second-order meta-analysis showed that caution should be taken in generalizing any results found using college student samples to a non-student population.

The second approach has used college student samples as appropriate representatives for the subjects of studies dealing with a variety of topics, including college students' drinking behavior (Shim & Maggs, 2005), credit card use for vulnerable consumers (Braunsberger, Lucas, & Roach, 2004), and college students' perception of the consumer role (Lachance & Choquette-Bernier, 2004). In addition, college students have been studied for new technology-related issues in several cases because they are the most active users of the technology and are influential consumers at the same time (Lin & Lu, 2000). Lin and Lu (2000) applied the Technology Acceptance Model (TAM) to a sample of 139 Chinese college students in Taiwan in order to understand the factors that affect consumers' perceptions about the acceptance of a Web site. A few proposed relationships were supported by the data analysis. For example, *ease of use* was found to impact consumers whether or not a purchase was made online.

Beyond Lin and Lu (2000), McEwen (2005) provided one of the few studies that has dealt with Gen Y in China. It found that Gen Y Chinese were active in information seeking and sharing, had high hopes and ambitious plans, and were more attuned to goods produced elsewhere, i.e., not domestic products. Even with growing knowledge about Gen Y in China, marketing to this group is still considered one of the toughest challenges the business world has faced (McCleneghan, 2005).

This literature review clearly demonstrates that insufficient academic research has been done relative to Gen Y consumers in general, Chinese Gen Y consumers in particular, and appearance-related products, including hair coloring.

### **Research on Cosmetic Products**

By definition, hair coloring is a subcategory of hair care products which is a subcategory itself of cosmetics. The wearing of cosmetics by women in Western culture has been under discussion for decades. Early critiques of cosmetics were exemplified by the medieval theologian Clement of Alexandria, who declared “For applying things unsuitable to the body, as if they were suitable, begets a practice of lying and a habit of falsehood” (Tseelon, 1995). According to this view, any changes to the natural appearance, such as wearing make-up, dyeing hair, or putting on elaborate clothes were seen as betrayal to the work of the Creator and mistrust in his work of creation. The premise for these critiques assumes that a ‘true’ self independent of the masks that one assumes exists (Negrin, 2000). In contrast, some recent theorists, such as Michel Thevoz and Alfonso Lingis, proposed in the last decade that the self consists of the mask (Negrin, 2000). Based on poststructuralist theory, they openly advocated that cosmetics are supposed to accurately represent an ‘authentic’ self by making the connection between the inner and the outer self. With a comparison between the two different appraisals of cosmetics, Negrin (2000) argued that the second view overlooked some key problems by defining the self as masquerade, which mirrors the promotional approach of the cosmetics and advertising

industry. In this circumstance, Negrin feared that cosmetics might curtail individualism. It directed attention to the fact that the increasing commodification of all areas in social life makes it more difficult for individuals to make sense of their lives unless by consuming certain standardized commercial goods.

An extensive search of the consumer behavior literature indicated that extant research on cosmetics products has been limited, meaning even less attention has been directed specifically to hair care products. Among the studies on cosmetics products in the consumer behavior area, two major streams of research can be identified in terms of focus. One stream directly examines certain aspects of cosmetics products (Negrin, 2000; Orton & Wilkinson, 2004; Gummer, 2002; Gorman, 1975), while the other uses cosmetics simply as one product example for theory testing (Breneman, Geuens, & Pelsmacker, 2001; Goldsmith & De Witt 2003; Shukla 2004).

When a commodity is produced for the purpose of embodying, enhancing, or representing beauty, it is produced according to certain criteria or specifications. Given the wide range of individual differences, it is no wonder that the production and consumption of beauty commodities is a complex process involving many issues. As pointed out by Orton and Wilkinson (2004), adverse physical reactions to cosmetics are reported to be quite common, but only a small percentage of the cases have been shown to be allergic in origin. That specific study provided an overview of allergic reactions to cosmetics in terms of the prevalence, diagnosis, and management of cosmetic allergy. Specifically for hair care products, PPD (p -

phenylenediamine) and its derivatives have been the primary coloring agents used in both permanent and semi-permanent hair coloring products, major causes of allergic cosmetic dermatitis. This conclusion was fully supported by other dermatology studies. For example, Gummer (2002) explained the process of how hair coloring works on the hair by bleaching pigment from the cortex while forcing permanent color through the fiber, resulting in damage to the hair shaft. Moreover, increased hair loss has been found in the patients who reported allergic contact dermatitis in response to the use of hair dye products.

A more recent study on hair dye-induced skin reaction was completed by Sosted, Hesse, Menne, Andersen, and Johansen in 2005, using a random sample of 4000 Danish adults. The survey results reconfirmed that adverse skin reaction is not rare among consumers using hair coloring, as well as among hairdressers who often suffer with occupational contact dermatitis. However, the percentage of affected individuals that contacted healthcare services was found to be unreasonably low, only 15.6%, which suggests that data from dermatologists only reflect a part of the side-effects caused by hair coloring. Although to a certain degree, side effects from hair dyeing have been accepted by health authorities due to the social need among people with gray hair, it is still worth arguing that cosmetics products with such possible side effects should be restricted from being used by children.

In terms of consumer behavior research, as early as 30 years ago, attention was brought to the fact that certain cosmetic additives may be harmful. Gorman (1975)

attempted to measure consumers' awareness of and reaction to the safety in food and cosmetic additives by distributing questionnaires in supermarkets. The findings showed that consumers had a certain degree of awareness of the possible dangers, and the reactions to the dangers were related to income, education, and age. In the end, the study pointed out that there may be opportunities for marketers to charge above-market prices by featuring goods free from undesirable chemical additives.

Besides the physical issues related to cosmetics, cosmetics as an adornment to the existing physical features may have psychological consequences. There are studies that show cosmetics have at least one believable benefit—perceptions of increased attractiveness. For example, Sigall and Aronson (1969) found there were different opinions about women with or without makeup. However, subjects were more likely to rate a natural brunette as attractive when she had “tastefully applied” makeup. She would be rated as less attractive with a wig and no makeup.

Cosmetics can be used in different social situations, including applying for a job. However, cosmetics may not always have a positive effect on others' perceptions. Cox and Glick (1986) investigated the relationship between the perception of women's ability to work and their usage of cosmetics. Although cosmetics can be positively related to perceived attractiveness, femininity, and sexiness, in terms of resume photo evaluations, cosmetics use was found to have a negative effect on the expected ability of female candidates for a gender-typed job (i.e. secretary), but no effect for a nongender-typed job (i.e. accountant). These results indicated that

cosmetics use could outweigh the effects of physical attractiveness in evaluations of female applicants for a gender-typed position.

A more recent study by Kyle and Mahler (1996) also examined the relationship between a female applicant's physical appearance and her expected performance. This study not only investigated cosmetics use, but also the use of hair color. 136 college students participated in the evaluation and demonstrated main effects for both hair color and cosmetics use. Specifically, the applicant was rated more capable with brunette hair color and no makeup. Compared to the results of Sigall and Aronson (1969), brunette hair color was agreed to be related with positive features, while wearing makeup could have different effects.

Cosmetics are not only used to achieve physical attractiveness. Studies show that people use cosmetics to feel good about themselves, especially women. Graham and Jouhar (1982) reported that subjects tend to have higher expectations, a better self-image, as well as a better attitude towards others when using makeup. Different motivations behind cosmetics usage were also found for different age groups. For example, middle-aged women seemed to use cosmetics to help maintain a good attitude towards aging. Similarly, Cash and Cash (1982) interviewed 42 female college students about their use of cosmetics. Subjects reported that cosmetics could help them feel more sociable and self-assured. The study also suggested that women who feel less satisfied with their body image may use cosmetics to compensate.

Fabricant and Gould (1993) reported various aspects and dimensions of women's use of makeup. Their interpretive study found that women's use of make up follows a traceable trajectory over time. Based on that, a typology of individual styles of makeup use was constructed for future application. Furthermore, different perspectives of women's identity construction and reflection through makeup use were also discussed. Specifically, "a woman's makeup use seems to mirror her attitude not only toward herself but toward women and their roles in general."

In terms of the second stream of research in the cosmetics area, where one or more specific cosmetics products or brands were selected to test a theory, the topics addressed were very diverse. For example, Shukla (2004) addressed the effect of product usage, satisfaction, and involvement on brand switching behavior in five product categories, with hair oil being one product category. Cluster analysis was used to understand the grouping of the characteristics across the categories and their effect on brand switching behavior in correlation with satisfaction and involvement level. Results showed that product usage and the related level of satisfaction fail to explain brand switching behavior, while product involvement was found to have a moderate impact on participants' readiness to switch brands.

By the same token, Goldsmith and De Witt (2003) used a sample of 117 students to evaluate a self-report scale for consumer opinion leadership within specific product fields, with skin care products being one of three product categories investigated. Factor analysis was used for the evaluation. The statistical results showed that the

opinion leadership scale is unidimensional with good internal consistency and discriminant validity. Furthermore, the scale was recommended to be applied more in the consumer behavior area.

Brengman, Geuens, and Pelsmacker (2001) used a sample of 153 Belgian women to investigate the impact of consumer characteristics and advertisement campaign factors on brand confusion, based on 27 perfume and facial care products. A higher degree of brand confusion was found for consumers having lower levels of product involvement, brand awareness, and brand loyalty. To a certain extent, women older than 35 have more brand confusion than their younger counterparts. In terms of advertising campaigns, the more media support a brand got, the less brand confusion it incurred. In addition, it was found that advertisements should be unique but not over-loaded with information.

Merisavo and Paulas (2004) examined the effects of email marketing on brand loyalty, using a sample of 890 consumers in Finland who were users of a multinational cosmetics brand. The survey results suggested that regular email contacts have a positive effect on brand loyalty, and in return, loyal consumers appreciate regular communication and other useful information in addition to sales offers from the company. These findings encouraged marketers to keep in frequent contact with their consumers via email, not just for seeking additional sales in the short term, but also for building brand loyal in the long term.

Some of the studies were conducted in a non-Western setting. For example, Barnes and colleagues (2004) explored Chinese women's perception of international cosmetics advertising from a Chinese cultural context. More positive consumer perceptions and attitudes were found towards advertising of foreign cosmetics products as a result of increased exposure to media, providing marketers with new opportunities. Although the study had certain limitations in terms of its exploratory nature and a sample size of only 100, the findings shed some useful light on planning cosmetics advertisements for the Chinese market, for example, the target audience seemed to be willing to accept standardized cosmetic brand names. These findings might be cautiously extended to some other female-targeted products, such as jewelry.

Lin, Wang, and Tsieh (2003) based on classifying consumers as satisfied switchers, dissatisfied switchers, and stayers, examined the influence of advertising on the three groups in terms of consumer satisfaction, consumer loyalty, and consumer involvement with the service provided by UV-skincare companies in Taiwan. The results showed differences among the three consumer groups in terms of satisfaction, loyalty, and involvement with those participants' currently used brands. However, no significant differences were found in their responses towards advertising. Therefore, based on the findings from this study, UV-skincare providers could formulate marketing strategies to target different consumer groups better.

Review of the literature on cosmetics products in the consumer behavior domain revealed three gaps: (1) insufficient focus by academic researchers on this product

group given its importance in consumers' daily lives, especially in the case of hair care products; (2) little research on hair coloring products and Gen Y; (3) insufficient focus on male consumers area given their increasing usage of the product category. Bearing this in mind, this study addresses these three gaps in the literature by focusing on hair care products and including male consumers in the subject groups.

### **Consumer Perceived Value (CPV)**

A key component of research on hair coloring should logically include the value that consumers perceive for hair coloring products and service. "Value is considered to be an important constituent of relationship marketing and the ability of a company to provide superior value to its customers is regarded as one of the most successful strategies for the 1990s. This ability has become a means of differentiation and a key to the riddle of how to find a sustainable competitive advantage" (Ravald & Gronroos, 1996, p. 19). An extensive literature review shows that the knowledge about consumer perceived value has been growing, especially since the 1990s. However, the knowledge base is still fragmented, lacks clarity, is comprised of a variety of research streams, and has no widely accepted theoretical foundation (Woodruff, 1997). Moreover, a deficiency of measurement scales for the CPV construct exists due to value being so abstract and complex that it is easily confused with the concepts of quality, benefits, and price (Zeithaml, 1988). Given this situation, a number of studies have called for continuing attention to the coming era of CPV as the next source of competitive advantage and have argued that CPV is a

significant advance in marketing that deserves considerable investment of more research efforts (Day, 1990; Patterson & Spreng, 1997; Payne & Holt, 2001; Woodruff & Gardial, 1996; Woodruff, 1997). This position clearly supports the need for research exploring CPV in specific applications such as hair coloring.

### *CPV as Competitive Advantage*

The seminal work of Woodruff (1997) called for attention to consumer value as the next major source for organizations' competitive advantage, which is said to be a new way to compete in a situation where customers are more demanding, competition is global, and economies are experiencing slow growth. Given the fragmented nature of the consumer value knowledge body Woodruff's (1997) study offered a conceptual definition for customer value and explored how organizations could build a consumer value-oriented marketing information system (CVOMIS). Moreover, Woodruff (1997) pointed out opportunities for future academic research in developing: (1) richer consumer value theory; (2) more effective consumer value method tools; and (3) more evidence of consumer value in organizational performance.

Slater (1997) pointed out that marketers should realize that the creation of consumer value must be the reason for a company's existence as well as for its success. The reality is for a firm in the current environment with increasing competition where sources for its competitive advantage can be easily copied by the other firms, consumer value-focused innovation becomes critical to maintain this firm's competitive advantage. Therefore, developing a consumer value-based theory

of the firm based on the foundation that was laid decades ago by other studies should be put as a high priority for marketing scholars.

Butz and Goodstein (1996) argued that companies could gain a competitive advantage by focusing on consumer value, which may be viewed as an emotional bond between the company and the customer. The article pointed out that there are three levels of consumer value, from low to high in importance to the company: (1) the expected level, which is the normal or modal level where the company just provides goods/services that are expected by the consumer already; (2) the desired level, which is the level at which the company provides added value for the consumer that is not required by company or industry standards; and (3) the unanticipated level, which is the ultimate level where the company provides added value that is beyond the consumer's conscious expectation. Based on this framework, the company should not only think about what the consumer's present needs are, but also what the consumer's emerging needs are, as well as how to meet those needs.

### ***The Concept of Consumer Perceived Value***

Value is a dynamic abstract concept with meanings that vary according to context (Woodruff, 1997). For example, in economics value is equated with utility or desirability; in social sciences it is understood in the context of human values such as the instrumental and terminal values suggested by Rokeach (1973); while in marketing value it is typically defined based on *business's* perception of what consumers value (see Table 2.1).

Table 2.1 reveals a surprising diversity of meanings for value and points out three gaps in extant research. First, although some definitions are derived in the consumer behavior domain, they are given the name customer value or customer perceived value, instead of *consumer* perceived value. As Parasuraman and Grewal (2000a) pointed out, there are distinctions between “customers” and “consumers,” which are two separate entities within the market. As a result, there is a need to give a distinctive definition for consumer perceived value. Second, most definitions are based on the assumption that consumers actually have purchased and used a product or service; instead, the reality often includes the situation where consumers evaluate the product or service, but the perceived value is not significant enough for them to make the final purchase decision. Even so, there is still consumer perceived value resulting from the shopping and evaluation process and this is not captured by the definitions currently in the literature. Third, research has shown that there are differences between what businesses think their customers value and what customers say they value (Parasuraman, Zeithaml, & Berry, 1985; Woodruff, 1997). Therefore, in order to accurately analyze consumer perceived value, this study adopts a consumer perspective, defining consumer perceived value as *judgments and assessments of the overall value a consumer perceives he/she gains when considering what is received versus what has been given up in the marketplace exchange—whether or not purchase has taken place.*

Table 2.1  
Definitions of Value

<b>Term</b>	<b>Source</b>	<b>Definition</b>
Value	Rokeach (1973, p.5)	A value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-use of existence.
Value	Anderson, Jain, & Chintagunta (1993, p. 5)	Value in business markets is the perceived worth in monetary units of the set of economic, technical, service and social benefits received by a customer firm in exchange for the price paid for a product, taking into consideration the available suppliers' offerings and prices.
Value	Ravald and Gronroos (1996, p. 19)	Value is considered to be an important constituent of relationship marketing and the ability of a company to provide superior value to its customers is regarded as one of the most successful strategies for the 1990s. This ability has become a means of differentiation and a key to the riddle of how to find a sustainable competitive advantage.
Customer Value	Gale (1994)	Customer value is market perceived quality which is adjusted for the relative price of the products. It is your customer's opinion of your products/services as compared to that of your competitors.
Customer value	Monroe (1990, p. 46)	Buyers' perceptions of value represent a tradeoff between the quality or benefits they perceive in the product relative to the sacrifice they perceive by paying the price.
Customer Value	Woodruff (1997)	Customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facility (or block) achieving the customer's goals and purposes in use situations.
Customer Value	Holbrook (1994, p. 27)	Interactive, relativistic, preference experience.
Customer Value	Butz & Goodstein (1996, p. 63)	The emotional bond established between a customer and a producer after the customer has used a salient product or service produced by that supplier and found the product to provide an added value.
Perceived Customer Value	Day (1990, p. 142)	Perceived customer value is the surplus between customer's perceived benefits and customer's perceived costs.
Perceived acquisition value	Urbany & Bearden (1990)	The buyers' net gain (or trade-off) from acquiring the product or service.
Perceived transaction value	Lichtenstein, Netemeyer, & Burton (1990)	The perception of psychological satisfaction or pleasure obtained from taking advantage of the financial terms of the price deal.
Perceived value	Zeithaml (1988)	The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given.

Source: Literature Review

### ***Theoretical Foundation of CPV***

From the consumer's perspective, obtaining value is a fundamental market exchange goal and essential to all successful exchange transactions (Holbrook, 1994). However, not many studies have been conducted on consumers' perceptions of value in a consumer behavior context (Patterson & Spreng, 1997). Apart from the obvious importance from a consumer's standpoint, perceived value is of significance to marketing scholars since it may alter the attitudinal direction (satisfied/dissatisfied) and lead to different behaviors, as well as different behavioral consequences (give-up/purchase/repurchase). Although CPV has no widely accepted theoretical foundation, means-end theory and the theory of market choice behavior have been addressed in relationship to CPV. However, overall theory building has not been strong in this research area.

#### **Means-end Theory**

Means-end theory was initially operationalized to describe how consumers cognitively categorize information about products (Gutman, 1982). In other words, the evaluation of performance for a product/service at the attribute level can lead to an assessment of how well the product/service meets the consumer's needs and wants (Petrick & Backman, 2002). Means-end theory argues that consumer perceived value is formed by how well a product's attributes perform relative to desires, followed by an assessment of the desired consequences in a use situation to see if the consumer's goals and purposes are achieved. *Attributes* are the concrete descriptions

that show what the product entails/possesses. *Consequences* refer to the outcomes from these product attributes. These outcomes refer to what the product or object can do for the consumer, which can be either negative or positive (Woodruff & Gardial, 1996). *Values* refer to the most abstract end goals or purposes, and are linked with the consequences. Several attempts have been made to use this theory to conceptualize consumer value (Flint, Woodruff, & Gardial 2002; Kerin, Jain, & Howard 1992; Overby, Gardial, & Woodruff 2004; Zeithaml 1988).

Gutman (1982) proposed the means-end chain model that has been widely accepted in consumer behavior research, which sets up linkages between attributes (the means) and the consumer's desired consequences and personal values (the ends). Three levels of distinctions are included in the model, grouping (attributes), consequences, and values. The study points out the possible areas in which this theoretical model can be applied, such as market analysis and segmentation, product planning, and promotional strategy. Specifically, with the means-end chain model and accompanying measurement procedures, buying behavior and decision making of consumers can be determined by establishing the consumers' patronage behavior pattern and their cognition structures for products/services.

Following this research, other research adopted the means-end chain approach, including the seminal work of Zeithaml (1988) on value, quality, and price. Perceived value is defined as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml, 1988,

p. 14). In that seminal work, Zeithaml proposed a conceptual model to analyze the linkages among price, perceived quality, and perceived value. Based on the respondents' descriptions in an exploratory study, four definitions of value emerged: (1) 'value is low price'; (2) 'value is whatever I want in a product'; (3) 'value is the quality I get for the price I pay'; and (4) 'value is what I get for what I give.' Results also indicated that perceived quality leads to perceived value, which leads to purchase intentions. Both intrinsic and extrinsic attributes were found to be positively related to perceived quality, while perceived monetary price was found to be negatively related to perceived quality. The importance of this work lies in expanding research beyond the price/perceived quality relationship, bringing extensive attention to the concept of perceived value and introducing perceived value as a *trade-off* of "higher-order abstractions."

Flint, Woodruff, and Gardial (2002) focused on the dynamic nature of how consumers perceive value from suppliers and reported on a study conducted in a context of business-to-business relationships between multiple firms at different levels in the US automobile manufacturing supply chain. The results supported and expanded the means-end theory by identifying changes in consumer value at all levels of the hierarchy, attributes, consequences, and to a lesser extent, desired end states. Specifically, it was found that consumers' desired values (pre-purchase expectations) normally change when respondents/buyers experience negative emotion (i.e. tension).

Moreover, buyers were found to use various strategies to bring suppliers' attention to their desired value changes and induce suppliers to respond accordingly.

### **Theory of Market Choice Behavior**

The theory of market choice behavior was first presented in Sheth, Newman, and Gross (1991), which focused on consumption values applicable to various consumption circumstances and product types. The theory was based on three fundamental propositions: (1) market choice is a function of multiple consumption value dimensions; (2) these values influence consumer consumption behavior to different degrees in different circumstances; (3) the values are independent of one another. This theory can be used to explain why consumers make the choices they do, i.e. why consumers choose to buy or not buy a specific product or why a specific brand is preferred over another.

Sheth and colleagues (1991) identified five higher order consumption values, functional, social, emotional, epistemic, and conditional value, which influence consumer behavior to different degrees in different circumstances. Specifically, *functional value* is concerned with the utility derived from the product quality and product performance. *Social value* is the utility derived from the product's ability to enhance social self-concepts, such as status. *Emotional value* refers to the utility derived from the feelings, or affective states that a product generates. *Epistemic value* refers to the surprise or novelty aspect of a product, a product's capacity to arouse curiosity, offer novelty or satisfy a desire for knowledge. *Conditional value*

refers to the situation in which the value judgment is made. Sheth and colleagues (1991) applied their theoretical approach to three different cigarette consumption cases. The results suggested possible uses of this framework to predict consumption behavior. Moreover, their work provided a strong foundation from which to build a perceived value scale (Sweeney & Soutar, 2001).

Lai (1995), based on the study of Sheth and colleagues (1991), presented a typology of product benefits, which included functional, social, affective, epistemic, aesthetic, hedonic, situational, and holistic values. Moreover, the study proposed a model of consumer value for the consumer market integrating four constructs, perceived consumer values, product benefits, logistic benefits, and diverse costs of consumption. It is worthwhile to mention that in the proposed model, the four constructs were defined in terms of consumers' perceptions in the acquisition, consumption and maintenance stages, as well as consumers' expectations of personal values prior to buying.

### ***Value Dimensions Identified in the Literature***

In their early work, Hirschman and Holbrook (1982) and Holbrook and Hirschman (1982) contended that value can be created from consumption as well as production. In addition, these works suggested that marketers need to understand the nature of consumption in order to extend their roles beyond transaction and product purchase to usage and disposal. Later, Holbrook (1994) drew attention to the importance of understanding the nature and types of value consumers receive from the

consumption experience, which makes it a seminal work in this area and has resulted in the work being widely cited and applied in other studies. In Holbrook's (1994) study, value was defined as "an interactive relativistic preference experience," based on which a typology of value was proposed with three dimensions to classify consumer value: (1) extrinsic vs. intrinsic; (2) self-oriented vs. other-orientated; and (3) active vs. reactive. These dimensions resulted in eight types of consumption experience values. Holbrook's typology has been found to be accessible and appealing to marketers in that it advances the understanding of the benefits in consumers' value systems, in the mean time providing optional ways of organizing marketing research data. However, this is not to say that this framework has reached perfection and should be applied without caution. To the contrary, careful considerations should be given for any attempt to use it (Smith, 1996).

Parasuraman and Grewal (2000b) in the concluding article for a special issue drew on key insights from the preceding articles and outlined a set of issues for future research on the quality-value-loyalty chain and the role of technology in this chain. Their research conceptualized perceived value as a dynamic construct consisting of four value types: acquisition value, transaction value, in-use value, and redemption value. They defined *acquisition value* as the benefits received for the monetary price given, *transaction value* as the pleasure the consumer receives from a good deal, *in-use value* as the utility derived from utilization of the product/service, and *redemption value* as the residual benefit received at the time of trade-in or end of life

(products) or termination (for services). Parasuraman and Grewal (2000b) also pointed out that the relevance of each of the four dimensions is different during varying times of the product/services' life (i.e., acquisition and transaction value are most important during purchase, while in-use value and redemption value are more relevant post purchase). The study's conceptual framework integrated the quality-value-loyalty chain with the service marketing "pyramid model," which pointed out the increasing importance of linkages among technology, consumers, employees, and companies, respectively. The research agenda derived from that study showed opportunities for further work on various issues in this area, for example, in determining consumer value the relative contribution of the components of value may change in different situations (e.g. different demographics/psychographics).

Payne and Holt (2001) gave an extensive review of literature on value that included nine streams of research, consumer values vs. consumer value; the augmented product concept; consumer satisfaction and service quality; the value chain; creating and delivering superior consumer value; the customer's value to the firm; consumer-perceived value; customer value and shareholder value; and relationship value. The study put emphasis on relationship value and introduced an existing multiple stakeholder model of relationship marketing, with the two integrating with each other and forming a conceptual framework for relationship value management. In terms of the stream of consumer perceived value, Payne and

Holt (2001) called for further empirical work given the fact that extant research has been primarily conceptual work.

Kim (2002) applied Holbrook's (1994) consumer value topology to compare mall and Internet shopping experiences. A 2 X 2 consumer value framework was proposed that constituted four components, efficiency, excellence, play, and aesthetics, with each being described as a specific type of value for mall and Internet shopping. Based on the prevalent notion that each retailer must strive to enhance consumers' shopping experience, understanding differences in consumer perceived value within different shopping experiences was viewed as important, allowing retailers to reevaluate and modify their strategies to match their consumers' specific desired values.

Woodall (2003) reviewed the extensive literature on perceived value, or as he called it "value for the customer." He categorized four types of value (intrinsic, exchange, use, and utilitarian value), using a historical perspective to describe how value has been treated in the fields of economics and philosophy. The categorization was based on whether the value assessment is subject-based or object-based (i.e. individual vs. collective), and on whether value should be seen in light of market characteristics and/or consumer sacrifices. Specifically, *intrinsic value* referred to the objective-based value that resides within the product, independent from market circumstances. This objective value assessment was made when people analyzed the intrinsic product characteristics before or during use. *Exchange value* was also

object-based, but influenced by market circumstances. For example, people attributed value to oil through an economic constant, which largely depended on the market circumstances (e.g. scarcity). *Use value* was subjectively based and was perceived as individuals evaluating the product during or just after use. It was associated with the rewards persons individually derive from using the product and was, thus, highly subjective. Finally, *utilitarian value* was also subjectively based, but referred to the point when intrinsic value and/or use value were compared with the sacrifice the person made in order to experience those forms of value.

Ponsonby and Boyle (2004) reviewed the literature on experiential value and explained the weaknesses of the traditional view of value as well as the reasons behind it. Given the new definitions for consumer value, the study concluded that new features of consumption should include being intrinsic, psychic, personal, and situational. The review then aimed to examine the factors that have had an impact on the types and levels of value that consumers gain from the consumption experience by giving a conceptual model as well as a methodology for future research on consumer value. With an overview of the changing business environment, this research provided insights for both academia and marketers into the concept of value and using it to create value through the consumption process.

As shown in Table 2.2, researchers have tried different ways to classify the underlying value dimensions with regard to purchasing and consumption. These classifications have broadened the concept of value by going beyond the functional

value of purchasing and/or consuming products/services, making clear that consumers also derive some other types of values from their shopping activities, such as social, emotional, and epistemic value (Sheth et al., 1991). These abstract value dimensions vary in different product or service contexts and should be analyzed accordingly.

### ***CPV Measurement Development***

According to Gale (1994), the common practice in collecting perceived value data has been using a self-reported, unidimensional measure that assumes consumers share a unique meaning of value, a concept which lacks validity (Woodruff & Gardial, 1996). Different efforts have been devoted to consumer behavior research (B2C) and business-to-business (B2B) research, with more attention in the first area.

### **B2C Research**

Babin, Darden, and Griffin (1994) developed a two dimensional scale measuring both *hedonic value* and *utilitarian values* produced in many consumption activities. A multi-step process was used in this study, including a literature review and qualitative research to identify the scale items, followed by a purification step to select the final 15 items for confirmatory factor analysis. The scale was tested statistically with a diverse sample and found to be useful to classify hedonic and utilitarian values. However, future research was suggested to develop scales of CPV for other consumption contexts.

Grewal and colleagues (1998) divided perceived value into two theoretical components: *perceived acquisition value* (which focuses on good value for the

Table 2.2  
Value Dimensions Identified in Previous Research

<b>Study</b>	<b>List of Value Dimensions</b>	<b>Application</b>
Zeithaml (1988)	1. Benefit 2. Sacrifice	Product
Sheth, Newman, and Gross (1991)	1. Functional value 2. Social value 3. Emotional value 4. Epistemic value 5. Conditional value	Consumer choice behavior
Babin, Darden and Griffin (1994)	1. Hedonic value 2. Utilitarian value	Shopping Trip
Holbrook (1994)	1. Efficiency 2. Excellence 3. Status 4. Esteem 5. Play 6. Aesthetics 7. Ethics 8. Spirituality	Consumption-related behavior
Kantamneni & Coulson (1996)	1. Societal value 2. Experiential value 3. Functional value 4. Market value	Product
Grewal, Monroe, & Krishnan (1998)	1. Perceived transaction value 2. Perceived acquisition value	Product
Parasuraman & Grewal (2000b)	1. Acquisition value 2. Transaction value 3. In-use value 4. Redemption value	Product/Service
Sweeney & Soutar (2001)	1. Quality/performance value 2. Emotional Value 3. Price/value for money 4. Social value	Product
Petrick (2002)	1. Quality 2. Emotional response 3. Monetary price 4. Behavioral price 5. Reputation	Service
Woodall (2003)	1. Intrinsic value 2. Exchange value 3. Use value 4. Utilitarian value	Product/Service

Source: Literature Review

money) and *perceived transaction value* (which focuses on the pleasure of buyer's finding a good deal), and developed a two-dimensional scale built on past scales of perceived value. The scale was designed to be more comprehensive than the previous ones in capturing the trade-off between a product's benefits and cost. The scale was validated statistically to ensure that it could be used in future study for different product categories.

Later, Sweeney and Soutar (2001) developed a 19-item four-dimensional measure of consumer perceived value, PERVAL, for consumer durable goods at the brand level. Four distinct dimensions of value were identified, including *emotional value*, *social value*, *quality/performance value*, and *price/value for money*, all of which were found to have significant explanatory power for attitudes and behavior. The measure was developed for a retail purchase situation and was tested and assessed in both a pre-purchase situation as well as a post-purchase situation. Statistical results from the exploratory and confirmatory analyses showed that the measure was both reliable and valid and could be used to determine what consumption values lead to purchase behavior.

Petrick (2002), following the theoretical model of Zeithaml (1988), was the first to attempt to develop a multidimensional scale (SERVPERVAL) for the measurement of service values instead of product values. The framework consisted of five dimensions, *behavioral price*, *monetary price*, *emotional response*, *quality*, and *reputation*. Behavioral price was defined as the price (nonmonetary) of obtaining a

service, including time and effort, while monetary price was defined as the price (monetary) of a service as encoded by the consumer (Zeithaml, 1988). Emotional response was a descriptive judgment regarding the pleasure that a product or service gives the purchaser (Sweeney et al., 1998). Quality was defined as a consumer's judgment about a product or service's overall excellence or superiority (Zeithaml, 1988). Finally, reputation was the prestige or status of a product or service, as perceived by the purchaser, based on the image of the supplier (Dodds, Monroe, & Grewal, 1991). Initial examinations of the SERVPERVAL scale have shown it to be both a reliable and valid measurement tool.

As presented in Table 2.3, in addition to the above-mentioned studies that have been well-cited, some other research efforts have also been devoted to the measurement development of CPV in the consumer behavior field, such as Monroe's (1976) one-dimensional scale and Yang and Peterson's (2004) one-dimensional scale. An initial effort to create a multidimensional measure of perceived value was conducted by Kantamneni and Coulson (1996). They utilized students to identify potential measurable dimensions of a product's perceived value. Results identified the distinct factors of *societal value*, *experiential value*, *functional value*, and *market value*. Societal value was termed to be the product's benefit/value to society. Experiential value was related to the senses (if the product feels, smells, and looks good), while functional value was related to whether or not the product was reliable and safe. The final factor, market value, was the product's worth relative to price.

Table 2.3  
Measurement Scales of CPV Used in the B2C Literature

Study	Dimensions	Items Used to Measure CPV	Application
Monroe (1976)	One	<p>CPV</p> <ol style="list-style-type: none"> <li>1. This product is a: (very good value for the money to very poor value for the money)</li> <li>2. At the price shown, the product is: (very economical to very uneconomical)</li> <li>3. The product is considered to be a good buy: (strongly agree to strongly disagree)</li> <li>4. The price shown for the product is: (very acceptable to very unacceptable)</li> <li>5. The product appears to be a bargain: (strongly agree to strongly disagree)</li> </ol>	Product
Babin, Darden and Griffin (1994)	Two	<p>Hedonic Value:</p> <ol style="list-style-type: none"> <li>1. This shopping trip was truly a joy.</li> <li>2. Compared to other things that I could have done, the time spent shopping was truly enjoyable.</li> <li>3. During the trip, I felt the excitement of the hunt.</li> <li>4. This shopping trip truly felt like an escape.</li> <li>5. I enjoyed being immersed in exciting new products.</li> <li>6. I enjoyed this shopping trip for its own sake, not just for the items I may have purchased.</li> <li>7. I continued to shop, not just because I had to, but because I wanted to.</li> <li>8. I had a good time because I was able to act on the "spur of the moment."</li> <li>9. While shopping, I was able to forget my problems.</li> <li>10. While shopping, I felt a sense of adventure.</li> <li>11. This shopping trip was not very nice time out.</li> <li>12. I felt really unlucky during this trip.</li> <li>13. I was able to do a lot of fantasizing during this trip.</li> </ol> <p>Utilitarian Value:</p> <ol style="list-style-type: none"> <li>14. I accomplished just what I wanted to on this shopping trip.</li> <li>15. I couldn't buy what I really needed.</li> <li>16. While shopping, I found just the item(s) I was looking for.</li> <li>17. I was disappointed because I had to go to another store(s) to complete my shopping.</li> <li>18. I feel this shopping trip was successful.</li> <li>19. I feel really smart about this shopping trip.</li> <li>20. This was a good store visit because it was over very quickly.</li> </ol>	Shopping trip

Table 2.3  
Measurement Scales of CPV Used in the B2C Literature (continued)

<b>Study</b>	<b>Dimensions</b>	<b>Items Used to Measure CPV</b>	<b>Application</b>
Grewal, Monroe, & Krishnan (1998)	Two	<p>Perceived Transaction Value:</p> <ol style="list-style-type: none"> <li>1. Taking advantage of a price-deal like this makes me feel good.</li> <li>2. I would get a lot of pleasure knowing that I would save money at this reduced sale price.</li> <li>3. Beyond the money I save, taking advantage of this price deal will give me a sense of joy.</li> </ol> <p>Perceived Acquisition Value:</p> <ol style="list-style-type: none"> <li>4. If I bought this bicycle at (selling price), I feel I would be getting my money's worth.</li> <li>5. I feel that I'm getting a good quality bicycle for a reasonable price.</li> <li>6. After evaluating the advertised bicycle features, I'm confident that I'm getting quality features for (selling price).</li> <li>7. If I acquire this bicycle, I think I would be getting good value for the money I spend.</li> <li>8. I think that given this bicycle's features, it is good value for the money.</li> <li>9. I feel that acquiring this bicycle meets both my high quality and low price requirements.</li> <li>10. Compared to the maximum price I would be willing to pay for this bicycle, the sale price conveys good value.</li> <li>11. I would value this bicycle as it would meet my needs for a reasonable price.</li> <li>12. This bicycle would be a worthwhile acquisition because it would help me exercise at a reasonable price.</li> </ol>	Product
Yang & Peterson (2004)	One	<p>CPV</p> <ol style="list-style-type: none"> <li>1. Compared to alternative companies, the company offers attractive product/service costs.</li> <li>2. Compared to alternative companies, the company charges me fairly for similar product/service.</li> <li>3. Compared to alternative companies, the company provides more free services.</li> <li>4. Comparing what I pay to what I might get from other competitive companies, I think the company provided me with good value.</li> <li>5. Comparing what I pay to what I might get from other competitive companies, I think the company provides me with good value.</li> </ol>	Service

Table 2.3  
Measurement Scales of CPV Used in the B2C Literature (continued)

<b>Study</b>	<b>Dimensions</b>	<b>Items Used to Measure CPV</b>	<b>Application</b>
Sweeney & Soutar (2001)	Four	<p>Quality/Performance Value:</p> <ol style="list-style-type: none"> <li>1. Item has consistent quality.</li> <li>2. Item is well made.</li> <li>3. Item has an acceptable standard of quality.</li> <li>4. Item has poor workmanship.</li> <li>5. Item would not last a long time.</li> <li>6. Item would perform consistently.</li> </ol> <p>Emotional Value:</p> <ol style="list-style-type: none"> <li>7. Item is one that I would enjoy.</li> <li>8. Item would make me want to use it.</li> <li>9. Item is one that I would feel relaxed about using.</li> <li>10. Item would make me feel good.</li> <li>11. Item would give me pleasure.</li> </ol> <p>Price/Value for Money:</p> <ol style="list-style-type: none"> <li>12. Item is reasonable priced.</li> <li>13. Item offers value for money.</li> <li>14. Item is a good product for the price.</li> <li>15. Item would be economical.</li> </ol> <p>Social Value:</p> <ol style="list-style-type: none"> <li>16. Item would help me to feel acceptable.</li> <li>17. Item would improve the way I am perceived.</li> <li>18. Item would make a good impression on other people.</li> <li>19. Item would give its owner social approval.</li> </ol>	Product

Table 2.3  
Measurement Scales of CPV Used in the B2C Literature (continued)

<b>Study</b>	<b>Dimensions</b>	<b>Items Used to Measure CPV</b>	<b>Application</b>
Petrick (2002)	Five	<p>Quality:</p> <ol style="list-style-type: none"> <li>1. is outstanding quality.</li> <li>2. is very reliable.</li> <li>3. is very dependable.</li> <li>4. is very consistent.</li> </ol> <p>Emotional Response:</p> <ol style="list-style-type: none"> <li>5. makes me feel good.</li> <li>6. gives me pleasure.</li> <li>7. gives me a sense of joy.</li> <li>8. makes me feel delighted.</li> <li>9. gives me happiness.</li> </ol> <p>Monetary Price:</p> <ol style="list-style-type: none"> <li>10. is a good buy.</li> <li>11. is worth the money.</li> <li>12. is fairly priced.</li> <li>13. is reasonable priced.</li> <li>14. is economical.</li> <li>15. appears to be a good bargain.</li> </ol> <p>Behavioral Price:</p> <ol style="list-style-type: none"> <li>16. is easy to buy.</li> <li>17. required little energy to purchase.</li> <li>18. is easy to shop for.</li> <li>19. required little effort to buy.</li> <li>20. is easily bought.</li> </ol> <p>Reputation:</p> <ol style="list-style-type: none"> <li>21. has good reputation.</li> <li>22. is well respected.</li> <li>23. is well thought of.</li> <li>24. has status.</li> <li>25. is reputable.</li> </ol>	Service

Source: Literature Review

Overall, measurement development in CPV has been sporadic and fragmented. It has been a mix of dimensions in reference to different products and services, with less attention on service side. In fact, only Kantamneni and Coulson (1996) have attempted a global measure of CPV. However, it may not be appropriate for

application in all circumstances, which means a need remains to explore global measures of CPV.

### **B2B Research**

As with consumer behavior research, the same effort has been put into the measurement of customer value in business markets. For example, Anderson and colleagues (1993) first argued that value is a fundamental consideration for decisions like product development, pricing, and distribution that are all critical for businesses. The study, based on a field study of the largest US industrial firms, identified a set of methods available in business markets to assess customer value. The results showed that focus group value assessment and importance ratings are the most-widely used methods, while conjoint analysis has the highest rating in expected successful application. In the end, a challenge was proposed for marketing academics to compare the estimates of value obtained using different methods under varying circumstances and to determine when the results converge with one another. However, all the methods available in business markets to analyze customer value are proprietary, which does not provide access to measurement scales for academics and others outside the business.

Lapierre (2000) developed a scale to measure customer perceived value in a business-to-business context using qualitative in-depth interviews and a literature review, which resulted in 13 drivers for value. The 13 value-based drivers identified were alternative solution, product quality, product customization, responsiveness,

flexibility, reliability, technical competence, supplier's image, trust, supplier solidarity with customers, price, time/effort/energy, and conflict. In addition, the study proposed two customer perceived value structures, a two- and three-factor structure, and tested them using data from industrial customers of the IT industry in Canada. The findings provided support for both structures and indicated the soundness of a value proposition with the 13 drivers. Moreover, it was pointed out that customer value measures should be put in a causal model to find out the antecedents of customer value and evaluate their effects.

Ulaga and Chacour (2001) developed a multiple-item measure of customer value and illustrated this approach by the B2B purchasing process of a major chemical manufacturer in international markets. Based on past research, the proposed measurement technique groups the "quality-related" aspects into perceived benefits and "price-related" aspects into perceived sacrifices, with the trade-off between the multiple benefits and sacrifices resulting in customer perceived value. Specifically, the "price-related" aspects were composed of product-related, service-related, and promotion-related components. The major application of this technique lies in positioning the company against its competitors in the value tables and maps in order to identify the specific attributes perceived by the customers, clarifying the strategies the company might need to pursue to improve its competitive situation.

### *Findings from Consumer Perceived Value Studies*

Findings in CPV are limited due to the small number of studies that have been conducted. The majority of the research has been done in the United States or other developed nations, such as Australia (Swait & Sweeney, 2000) and the United Kingdom (Al-Sabbahy, Ekinici, & Riley, 2004). A few studies have been conducted in developing economic settings, such as Slovenia (Snoj, Korda, & Mumel, 2004). The consensus of the extant studies is that CPV is a more complex construct than just the difference between a single measure of quality and price, which calls for further attention towards development of measurement tools. However, extant research shows that consumers' perceptions of value vary across the types of products investigated/services provided, which means the measurement of CPV in different settings varies accordingly or there is need to develop a general measure of CPV for all circumstances. Some of the findings suggest that CPV is even more important than consumer satisfaction in deciding behavioral intention/consequences (Tam, 2004).

Bolton and Drew (1991) developed a model to investigate how consumers with prior knowledge evaluate service performance levels, service quality and service value, based on a study of local telephone service. Specifically, consumer perceived value was found to be more complex than a trade-off between a single "overall quality" construct and sacrifice, suggesting a need to address further the measurement and scaling issues of CPV in future research. In addition, results showed that value

is a significant determinant of consumers' behavioral intentions to remain loyal to a telephone service by continuing the relationship and engaging in positive word-of-mouth. Empirical support for this linkage was also established in studies such as Grisaffe and Kumar (1998).

Dodds, Monroe, and Grewal (1991) proposed a conceptual model to examine the effects of price, brand, and store information on buyers' perceptions of product quality and value, as well as their willingness to buy. It was the first empirical study to evaluate the relationships of those extrinsic cues with consumer perceived quality, value, and behavioral intention. Results suggested that price has a positive effect on perceived quality while it appeared to have a negative effect on perceived value, as well as on willingness to buy. Furthermore, favorable brand and store information appeared to have positive effects on perceived quality, perceived value, and willingness to buy.

Kerin, Jain, and Howard (1992) examined the effect of store shopping experience on consumers' perceptions of price, quality, and value in a retail setting. The study proposed a model of consumer perceived value for retail stores based on a means-end perspective, suggesting that consumer knowledge is hierarchically organized at different levels of abstraction that refer to the extent of inclusion of possible meanings concerning an object. The model tested that store-shopping experience has both direct and indirect causal influence on consumer's perceptions of store value, which was confirmed by the statistical results.

Additionally, the results showed that perceptions of store shopping experience and merchandise prices are relatively more important in forming perceived value of a retail store than perceptions of store shopping experience and merchandise quality.

Grisaffe and Kumar (1998) investigated the effect of consumer perceived value on some behavioral intentions, such as consumer likelihood to recommend and likelihood to continue doing business. They studied two contexts, financial services and office products. Although consumer perceived value was found to influence those behavioral intentions, other antecedents, including industry leadership, customer focus, and/or quality perceptions were found to have even a bigger effect. Moreover, in addition to directly affecting consumer behavioral intentions, industry leadership and customer focus turned out to influence the perceptions of value and quality significantly. These findings provided evidence that a framework is needed to go beyond a superficial understanding of the concepts of perceived quality and value.

Grewal, Monroe, and Krishnan (1998) established a conceptual model to provide an understanding of how price-comparison advertising influences buyers' perceptions of value which shows promise as a measurement tool. More specifically, the model used advertised selling prices and advertised reference prices as exogenous constructs and analysed their effects on six endogenous constructs, which were buyers' perception of product quality, their internal reference price, perceived transaction value, perceived acquisition value, willingness to buy, and search intentions. The statistical results showed that the first two endogenous constructs, product quality and

internal reference price, were influenced by both exogenous constructs. Moreover, it was found that the effect of advertised selling price on buyers' perceived acquisition value was mediated by their perceived transaction value, which added new knowledge to the literature on the relationship between price and perceived value.

Sinha and DeSarbo (1998) presented a perceived value mapping methodology (VALUMAP) to capture perceived consumer value, using latent structure multidimensional scaling, which derives the underlying dimensions of the perceived value of various brands as well as characteristics of different market segments based on how value is formed. The model proposed was tested by empirical data from a survey on the automobile category and was compared to the results from other more conventional multidimensional scaling models, such as MDPREF and MULTICLUS. The results showed that VALUMAP works better in giving more meaningful information, helping to determine the dimensions of perceived value for a given product category. In addition, it was established that the multi-trait, multi-method approach and structural equation modeling were empirically useful in establishing the measurement properties of perceived value.

Sweeney, Soutar, and Johnson (1999) developed a model to explore the antecedents and consequences of perceived value, which included perceived risk as one of the factors. The results suggested that product quality, relative price (i.e. relative to products with similar features), risk, and functional and technical service quality defined perceived value. They concluded that consumers not only consider

the immediate benefits and sacrifices, but also contemplate the longer-term implications of the product's ownership, including performance and financial risk. Perceived risk was found to be a significant mediator in the quality-value relationship. Product and service quality reduced perceptions of risk, which, in turn, affected perceived product value. Additionally, the results indicated that perceived value was found to be a significant mediator to link service quality, merchandise quality, risk, and relative price with willingness-to-buy and should be included in the model.

Swait and Sweeney (2000) conceptualized a model of the effect of perceived value on choice behavior in a retail setting. This study brought up a new concept of "value orientation," which referred to consumers' general predisposition towards, or need for, price, quality, and value. The proposed model was tested by a survey of over 1000 shoppers actively searching for an electrical appliance in Australia. Value orientation was found to be a useful utility parameter, among others, for predicting segment structure and characteristics of a consumer market. In the meantime, the value conscious segment was found to have the highest percentage of predicted non-buyers, which suggested that consumers did not find the value they needed in the stores under discussion and that retailers could differentiate themselves from competitors by creating perceived value for consumers.

Baker, Parasuraman, Grewal, and Voss (2002) proposed a conceptual framework to investigate the influence of three types of store environment cues (social, design, and ambient) on perceived merchandise value and store patronage intentions via

various mediating constructs (i.e. interpersonal service quality perception, time/effort cost perception, and psychic cost perception). Specifically, the study applied the scales developed by Dodds and colleagues (1991) to measure merchandise value. The results from two different studies supported the proposed model, although some of the hypothesized links were not confirmed. It is noteworthy that neither time/effort nor psychic costs perception influenced perceived merchandise value, which was counter to the commonly held notion that both monetary and non-monetary price have an effect on perceived value.

Petrick and Backman (2002) investigated the validity, reliability, and potential of the Grewal and colleagues (1998) perceived value scale for application in predicting golf travelers' intentions to repurchase. Statistical results suggested that current measures of perceived value might be inappropriate and did not reflect the real construct of perceived value of a service, which called for further attention to the measurement issue. The study also examined the relationship between golf travelers' perceived value and their demographics, such as gender, age, education, ethnicity, and income. The findings suggested that the demographic variables included in the study do not have significant influence on perceived value.

Sirdeshmukh, Singh, and Sabal (2002) developed and tested a framework that depicted the relationship among consumer trust, value, and loyalty in relational exchanges, specifying value as a key mediator of the trust-loyalty relationship. The study argued that consumer value is a superordinate goal, and consumer loyalty, as a

behavioral intention, is a subordinate goal. According to goal and action identification theories, a superordinate goal is likely to regulate a subordinate one. Therefore, consumer value should regulate consumer loyalty to a particular service provider as long as the service provides superior value to the consumer. The study adapted the measure of value from Dodds and colleagues (1991), using four items that included the benefits obtained, the price paid, the time spent, and the efforts involved. The results revealed that the mediating effect of value in the trust-loyalty relationship varies across different types of service providers.

Chen and Dubinsky (2003) developed a model to explore specific factors that make up the online shopping experience, including ease of use, informativeness, and consumer service. Results showed that perceptions of product quality, price and the online shopping experience all equally affected perceived value. Moreover, perceived value strongly affected online purchase intentions. It was demonstrated that the traditional predictors of perceived value were also applicable to the online context.

Yang and Peterson (2004) examined the moderating effects of switching costs on the association of consumer loyalty with both satisfaction and perceived value. Based on the results from an online survey of online service users, perceived value was found to be a key driver of consumer loyalty that can influence consumer satisfaction as well. In addition, it was found that the moderating effects of switching costs on consumer loyalty through consumer satisfaction and perceived

value were contingent upon the levels of consumer satisfaction and perceived value, in particular, the role of switching costs as a moderator was only effective when a firm had above average perceived value or consumer satisfaction.

Tam (2004) applied the concept of consumer perceived value to the restaurant service industry in Hong Kong, proposing an integrative model to examine the relationships among perceived value, consumer satisfaction, and post-purchase behavior. The study hypothesized that perceived value directly influences both consumer satisfaction and post-purchase behavior and indirectly influences post-purchase behavior via consumer satisfaction as well. The model was tested by survey, and the statistical results showed that in terms of influencing post-purchase behavior, perceived value had both a direct and indirect effect, while consumer satisfaction only had a direct effect. Furthermore, perceived value was found to have a greater weight than consumer satisfaction in determining post-purchase behavior.

Snoj, Korda, and Mumel (2004) conducted an empirical study in Slovenia, where consumer perceived value is a neglected research area. A model of relationships among perceived value, perceived quality, and perceived risk was developed and tested with a sample of more than 200 respondents. As in the study of Ulaga and Chacour (2001), this study grouped the variables contributing to perceived benefits into “quality-related” aspects and variables contributing to perceived sacrifices into “risk-related” aspects. The results indicated that perceived quality and perceived

risk both had a significant effect on consumer perceived value of a mobile phone among the researched group, but the effects were in opposite directions. In addition, this research suggested that further attention should be directed towards fine-tuning of the measurement tool of consumer perceived value, such as improving the survey questions to measure the important concepts related to consumer perceived value.

Al-Sabbahy, Ekinici, and Riley (2004) attempted to test the two-dimensional value scale developed in Grewal and colleagues (1998) by applying it to hospitality services in the United Kingdom. They conducted separate studies for two different service industries, hotels and restaurants, respectively. Perceived value was conceptualized to consist of two dimensions: acquisition value and transaction value. The findings of the two empirical studies showed that perceived value, in this specific context, was in fact unidimensional, instead of two-dimensional. In particular, acquisition value represented the core, while transaction value was only peripheral. Although the scale was found to be reliable, concerns were brought up about its validity across the two studies. The conclusion called for the necessity of developing a better scale to evaluate perceived value.

Overby, Gardial, and Woodruff (2004) is one the few studies that has attempted a cross-cultural comparison on consumer perceived value investigating the influence of culture on the content and structure of consumers' perceptions of product-related value. The research was based on means-end theory, using data from qualitative in-depth interviews instead of a quantitative survey instrument. Results showed that

differences existed in the two cultural settings relative to the CPV dimensions, for example, French respondents emphasized social consequences and related linkages, while American respondents paid more attention to self-centered and personal achievement-oriented consequences and linkages.

Lin, Sher, and Shih (2005) first reviewed existing applications of unidimensional and multidimensional specifications for the CPV construct and argued that those models were all inadequate in certain respects. Based on the review, the study proposed the CPV construct to be a second-order multidimensional one. Using eTail service value data from Taiwan, the proposed model was validated as a theoretically convincing structure. Furthermore, the study pointed out that it is imperative to develop a measurement model with an adequate specification of the relationships among constructs.

The preceding review of literature indicated that not much effort has been directed to comparative consumer behavior research between China and the United States, and none of the cross-cultural studies between these two countries has dealt with consumer perceived value. In fact, there have been few cross-cultural studies involving CPV research, except for Overby, Gardial, and Woodruff (2004). Furthermore, there has been little research effort on CPV for the appearance-related service category, such as those relative to cosmetics, jewelry, and clothing. The CPV dimensions identified in extant research include hedonic value, utilitarian value, perceived transaction value, perceived acquisition value, functional value, quality

value, emotional value, epistemic value, social value, conditional value, experiential value, market value, reputation value, in-use value, redemption value, intrinsic value, monetary price, and behavioral price.

## **CHAPTER III**

### **METHODOLOGY**

Chapter III presents following sections: (1) Introduction; (2) Preliminary Qualitative Study; (3) Conceptual Model; (4) Research Hypotheses; (5) Study Sample; (6) Survey Instrument Development; (7) Data Collection Procedures; and (8) Data Analysis Techniques.

#### **Introduction**

The purpose of this study was to compare Gen Y consumers' perceived value of salon hair coloring in two different cultural settings: China and the United States. In order to explore this research question appropriately, this study consisted of a qualitative stage using in-depth interviews and a quantitative stage using the survey technique. The preliminary qualitative study was conducted for the following reasons: (1) the research topics of interest, CPV and salon hair coloring, have been little researched and need exploratory work done prior to attempting a survey; and (2) qualitative research, especially the in-depth interview technique, is appropriate for exploratory research and for investigating the experience of consumers (Denzin & Lincoln, 1994). While qualitative research can provide initial understanding of the lived experience of the consumer, the quantitative approach allows us to see and understand how broadly applicable the findings of the qualitative research may be,

i.e., how generalizable these findings may be. The quantitative research also allows the testing of a model and related hypotheses (Denzin & Lincoln, 1994).

### **Preliminary Qualitative Study**

The purpose of the preliminary qualitative stage was to explore what consumers perceive as the value received from salon hair coloring. Much of the consumer behavior literature looks at consumption from the perspective of business managers—often with a focus on purchase rather than use. However, consumer perceived value by definition demands an understanding of the consumer's perspective. Therefore, questions about the importance consumers attach to hair color relative to appearance, the feelings generated by coloring the hair, the benefits obtained with coloring the hair, and the negative aspects of the consumption experience, were all investigated. Qualitative exploration of consumers' perceptions of the value of salon hair coloring was especially critical for this study due to the paucity of research on the topic in the extant literature.

The in-depth interview was used as the primary data collection tool because it focuses on the informants' own expression of experiences and feelings (Denzin & Lincoln, 1994). Data collection for the qualitative study was conducted during February 2006 in a major Southeastern city by face-to-face meetings (US informants) or by pre-arranged phone calls (Chinese informants). Overall, 16 people (eight for each consumer group, see Table 3.1) agreed to participate in the study and were interviewed. While eight may seem to be a small number for each group, Griffin

and Hauser (1993) among others, have found that focus groups or one-on-one interviews including seven to ten people uncover the vast majority of needs and concerns. Furthermore, a review of the interview records suggested a recycling of ideas, or saturation, indicating the likelihood that little new information would emerge from further interviews.

To ensure a systematic approach to the data collection procedure, the researcher followed a prepared schedule of questions for each individual interview (see Appendix A). The interviews with the Chinese Gen Y group were conducted in Chinese using pre-arranged phone calls (informants were from six different cities in China), while interviews with the US Gen Y group were conducted using face-to-face interviews in English in the Southeast region of the United States. All interviews were audiotaped with the permission of the informants and lasted between 30 and 60 minutes.

Table 3.1  
Profile of Informants for the In-Depth Interviews

<b>Group</b>	<b>Number</b>	<b>Gender</b>	<b>Residence</b>
Chinese Gen Y	8	6 Female, and 2 Male.	2 in Guangdong, 3 in Beijing, 1 in Yunnan, and 2 in Shaanxi.
US Gen Y	8	8 Female.	8 in the Southeast of the United States.

The interviews conducted in English were transcribed directly into English, while the interviews conducted in Chinese were transcribed first into Chinese and then translated from Chinese into English. The Chinese informants' descriptions

included proverbs and idiomatic phrases unique to native Chinese speakers. To ensure the correct meanings of the translated version of the interviews, two native Chinese speaking graduate students from a major university in the Southeast were asked to review the transcribed copies in Chinese and in English. One person was asked to identify inconsistencies in translation, while the other one was asked to compare any inconsistencies found and to resolve those differences in translation with the principal researcher. The translations were reviewed and discussed until 95 percent agreement was reached. The suggested modifications were incorporated into the final version of the text. As in Bonsu and Belk (2003), the few proverbs and other local idioms used were not always translated literally but were instead rendered in a fashion that communicated the essence and intended meaning of the particular text.

Once the interview texts were vetted and reconciled, the interview transcripts were analyzed to draw out the meanings of the informants' hair coloring experiences (Denzin & Lincoln, 1994). Following the analysis stages suggested by Spiggle (1994), each individual interview was analyzed using categorization, abstraction, and integration with iterative comparison within the two consumer groups, which resulted in a summary for each interview. From these summaries eight recurring topical patterns emerged that were common across informants in each group.

During the next stage of the analysis, pieces of the transcript text from different interviews were grouped together to match one of the eight topical patterns. The

result was a new text that included parts from different interviews. This text contained informants' "combined" perspectives on the eight identified topical patterns. Whenever possible, the informants' answers were dimensionalized within each pattern from 'very important' to 'not important' attributes (Spiggle, 1994). The final analysis was based primarily on this combined text, with further support and context taken from the individual interviews. Detailed analysis results of the interviews were shown in Appendix B.

### ***Summary of Interview Results***

As shown in Table 3.2, there were obvious differences as well as similarities between the two Gen Y consumer groups under discussion. The similarities included: (1) both groups perceiving hair coloring as an adornment, which can make a change to a person's overall appearance; and (2) both groups perceiving the use of hair coloring as a tradeoff between what they could "receive" (i.e. quality, emotional value, epistemic value, and social value) and what they would have to "give up" (i.e. health risk, monetary cost, and time/effort). The latter confirmed the tradeoff concept that is expressed in the literature (Woodruff, 1997; Zeithaml, 1988). In regards to what consumers "received," findings from the explorative study supported some of the issues that past research has identified, including quality (Zeithaml, 1988), the emotional response (Grewal et al., 1998), the desire for knowledge (Sheth et al., 1991), and social enhancement (Sheth et al., 1991; Petrick, 2002). As for what consumers "give up," besides monetary costs and time/effort costs that were

found in the previous research (Woodruff & Gardial, 1996; Tam, 2004), a unique aspect for the CPV of hair coloring consumption in this study was the perception of a possible health risk.

However, the two groups appeared to put differing levels of importance on each of the value dimensions: (1) for the Chinese Gen Y group, the very important dimensions included quality value, and health risk; while for the US Gen Y group, emotional value and monetary cost were the very important dimensions; (2) for Chinese Gen Y group, the secondary important dimensions were epistemic value, social value, and the time/effort cost; while for the US Gen Y group, the secondary important dimensions were quality value, social value, and time/effort cost; and (3) emotional value and monetary cost seemed to be the least important dimension for the Chinese Gen Y group while epistemic value and health risk cost were the least important dimensions for the US Gen Y group.

Another important issue raised by the interview informants was where hair coloring took place. As expressed directly by informants in the preliminary qualitative study, most felt that there was a significant quality difference between hair coloring at the salon and coloring hair at home. The Chinese group was more homogeneous, with only one informant who had ever tried coloring her hair at home, while the US group was more heterogeneous, with varying consumption patterns. Some US informants seemed to prefer salon hair coloring while some preferred to color their hair at home. It became evident that a comparison of Chinese and US

Table 3.2  
 Comparisons of Value Perceptions for the Use of Salon Hair Coloring  
 Between Chinese Gen Y and US Gen Y Consumers

	<b>Recurring Patterns</b>	<b>Closely Associated Value Constructs</b>	<b>Chinese Gen Y Group</b>	<b>US Gen Y Group</b>
Benefits	Hair coloring as adornment	N/A	Agreed upon	Agreed upon
	Product/Service Reliability	Quality value	Very important <ul style="list-style-type: none"> <li>• Strong preference for salon service</li> </ul>	Important <ul style="list-style-type: none"> <li>• Preference is not generalized within the group</li> </ul>
	Feeling good	Emotional value	Not Very Important <ul style="list-style-type: none"> <li>• Outcome</li> </ul>	Very Important <ul style="list-style-type: none"> <li>• Process</li> <li>• Outcome</li> </ul>
	Curiosity about new looks	Epistemic value	Important <ul style="list-style-type: none"> <li>• With less experiences</li> </ul>	Not very important <ul style="list-style-type: none"> <li>• With more experiences</li> </ul>
	Image	Social value	Important <ul style="list-style-type: none"> <li>• Not only self-face but also others-face</li> </ul>	Important <ul style="list-style-type: none"> <li>• Consider other people's advice</li> </ul>
Sacrifices	Price	Monetary cost	Not very important <ul style="list-style-type: none"> <li>• Not mentioned much in the interviews</li> </ul>	Very important <ul style="list-style-type: none"> <li>• Big constraint for salon hair coloring</li> </ul>
	Personal cost	Time/Effort cost	Important <ul style="list-style-type: none"> <li>• Long waiting time</li> </ul>	Important <ul style="list-style-type: none"> <li>• Need to fit in the schedule</li> </ul>
	Physical well-being	Health Risk cost	Very important <ul style="list-style-type: none"> <li>• Concerns for serious health problems are standard within the group</li> </ul>	Not very important <ul style="list-style-type: none"> <li>• Concerns are barely shown within the group</li> </ul>

Source: Interview transcripts

consumers' use of hair coloring would have to be in the context of the hair coloring use with which both had meaningful experiences, i.e., salon hair coloring. Thus, the quantitative part of this study focused on salon hair coloring.

### **Conceptual Model**

Based on the literature review and the preliminary qualitative study, a conceptual model for this study was developed by adopting Zeithaml's (1988) classification and insights to classify the consumer perceived value for salon hair coloring into benefits and sacrifices (see Figure 3.1). It was predicted that the dimensions/constructs in the "benefits" category should have a positive effect on CPV, while the dimensions/constructs in the "sacrifices" category should have a negative effect on CPV. Overall, the model utilizes the six value dimensions from the literature review that were closely aligned with the recurring topical patterns that emerged from the interview data: quality value, emotional value, epistemic value, social value, monetary costs, and time/effort costs. The model also includes health risk costs, a value that represents a topical pattern identified in the qualitative study, but not found in the literature.

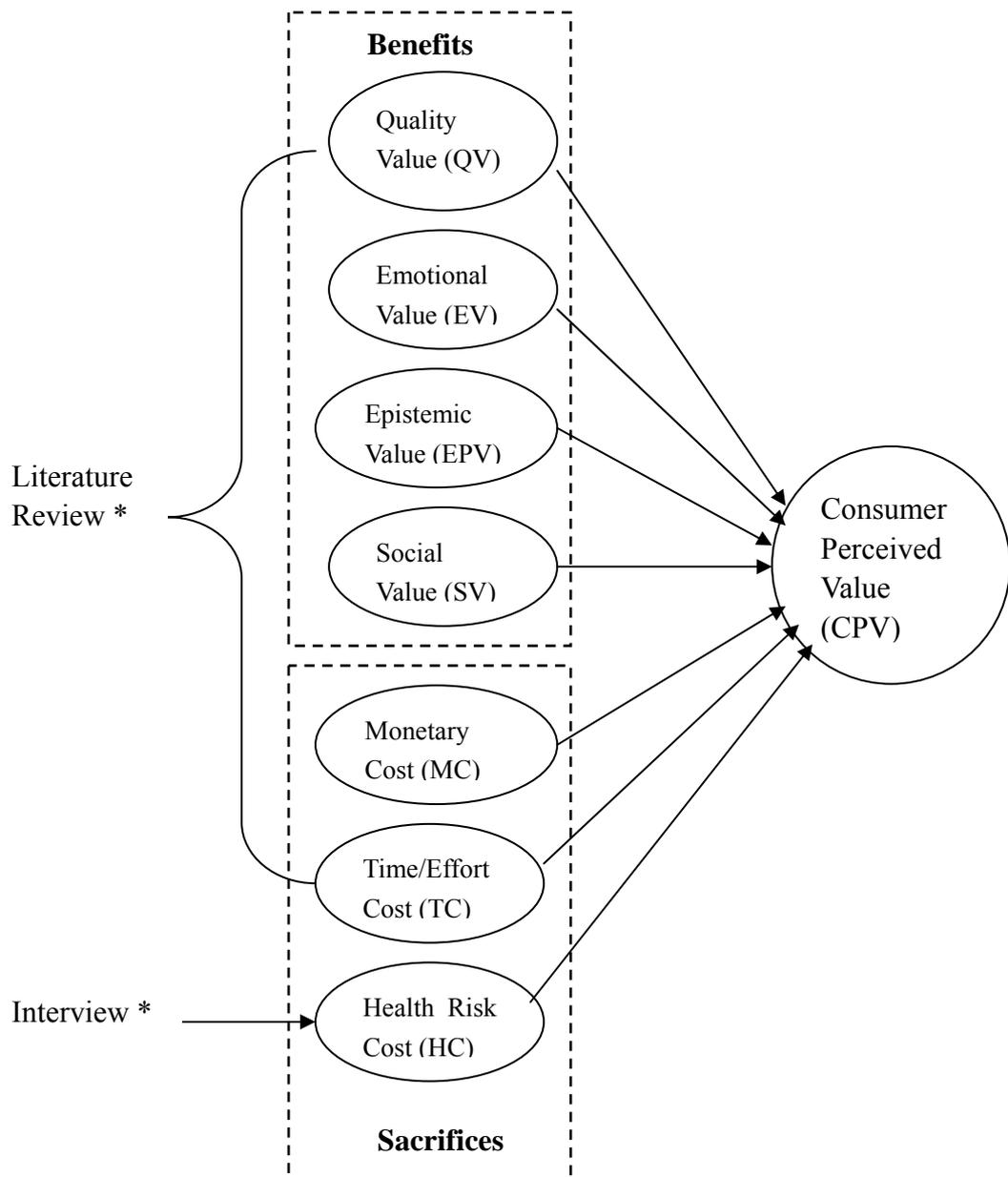
### **Research Hypotheses**

In order to address the research question—to explore and compare Gen Y consumers' perceptions of value for salon hair coloring in China and the United States—11 hypotheses were proposed. The first seven hypotheses postulated

cross-cultural comparisons between the two consumer groups, while the last four hypotheses predicted within-culture comparisons.

Figure 3.1

Conceptual Model of CPV for Salon Hair Coloring



Note: \* indicates the sources of dimensions

### *Cross-Cultural Comparisons*

Hair coloring, in general, can be used as an adornment to enhance physical attractiveness (Storm, 1987). As expressed explicitly by informants in the preliminary research of the current study, most consumers agreed that there is a quality difference between salon hair coloring and coloring hair at home. The value that a consumer places on quality, or quality value, is related to a consumer's judgment about a product or service's overall excellence or superiority (Zeithaml, 1988). As indicated by both Chinese Gen Y and US Gen Y informants, salon hair coloring provides unique advantages such as expert suggestions, avoidance of mess, and more trustworthy outcomes. However, the Chinese group seemed to have a stronger preference for salon hair coloring than their counterparts in the US, in part because all the Chinese informants were regular consumers of salon hair coloring. Only one had ever tried self-coloring at home, while the US informants had different attitudes and consumption patterns. Some US informants were in favor of salon hair coloring while the rest chose to color their hair on their own. Based on findings from the preliminary research, it is hypothesized that:

**H1:** The quality value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

Historically, happiness seeking via consumption, also called hedonic or emotional consumption, is believed to have first emerged in individualist cultures (Holbrook & Hirschman, 1982). Emotional value is the utility derived from the

feelings or affective states that a product or service generates (Sweeney & Soutar, 2001). It has been argued that people in an individualistic culture with an independent self-concept should emphasize the importance of the internal self as well as emphasize the importance of hedonic consumption to please the internal and private self (Wong & Ahuvia, 1998). Compared to consumers in an individualist culture, such as the United States, people in a collectivist culture, including China, do not appear to put as much emphasis on emotional value given the focus on collective concerns. For example, Cheng and Schweitzer (1996) found that American television ads stressed enjoyment much more than did Chinese commercials. Based on the above, it is hypothesized that:

**H2:** The emotional value of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.

Research has shown that an increased acceptance of hair coloring started in the 1960s in the United States (Britton, 1978), while it did not become popular in China until the 1990s (Li, 2003). As indicated by the Chinese Gen Y informants in the qualitative study, most of them started using hair coloring when they entered college and became more independent, while most of the US Gen Y informants expressed having used hair coloring since they were in middle school and/or high school. This difference in the age at which hair coloring began may reflect where the informants were in the life cycle of hair coloring usage. It is expected that the US Gen Y group may have already answered many of the questions on color and brand

relative to the product category while the Chinese Gen Y group is still in the process of searching and experimenting with hair coloring. Given that epistemic value relates to curiosity, novelty, or gained knowledge from a product or service (Sheth et al., 1991), it is hypothesized that:

**H3:** The epistemic value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

As found in the literature review, people in collectivist cultures are more concerned with other people's perceptions of them and with the maintenance of their own status than individualistic cultures (Hofstede & Bond 1984). For example, the Japanese were found to have higher levels of social anxiety (i.e., anxiety over their public appearance) than did Americans (Abe, Bagozzi, & Sadarangani, 1996). In China, consumers have been influenced by self-need as well as by social concern in making decisions. On the other hand, in the United States consumption is more likely to reflect each individual's own will (Zhou & Nakamoto, 2001). The Chinese people's more positive orientation toward conforming to social roles also helps explain why the Chinese Gen Y informants in the preliminary research placed great importance on the social value of salon hair coloring, which is the utility derived from the product's/service's ability to enhance the social self-concept (Sweeney & Soutar, 2001). Based on the theoretical and empirical research findings regarding social value, it is postulated that:

**H4:** The social value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

In the United States, companies tend to use various sale and promotion campaigns in order to attract consumers, making abundant and comparable goods available to virtually everyone (Mela, Gupta, & Lehmann, 1997). As a result, American consumers tend to do more comparative shopping and engage in more price-hunting, such as looking for sales (Sun, Chen, Fang, & Liang, 2000). Conversely, competition in China is relatively low, so Chinese consumers are more concerned with the availability and/or the quality of a product instead of the price (Fan & Xiao, 1998). In addition, research has found that Chinese young consumers perceive a weaker price-quality relationship than young American consumers, and they are less price-conscious and less coupon-prone than their US counterparts (Zhou & Nakamoto, 2001). Based on these findings, it is postulated that:

**H5:** The monetary costs of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.

As indicated by the informants in the preliminary qualitative study, there was a perceived time/effort cost relative to salon hair coloring. However, there appeared to be a difference in the perceptions of time cost between the two Gen Y groups. Chinese Gen Y informants appeared to care less than their US counterparts. In addition, previous research has shown that Chinese college students tended to be less time conscious than US college students (Fan & Xiao, 1988). Additionally,

Chinese consumers in general have been found to be more willing to travel longer distances to go shopping than US consumers, implying a tendency for Chinese consumers to be less effort-concerned (Li, Zhou, Nicholls, Zhuang, & Kranendonk, 2004). Based on the theoretical and empirical research findings regarding time/effort cost perceptions, it is hypothesized that:

**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.

In the United States, extensive regulations and ready access to litigation prevent most fake products from entering the market. Compared with the United States, the marketing environment in China is deficient in terms of market regulation and market competition (Fan & Xiao, 1998). In the transition process from a planned central economy to a market economy, the Chinese market has been characterized by a lack of coherent business regulation and legislation, which has led to deceptive advertising, trademark violation, and unethical business practices (Ho & Sin, 1988). Therefore, Chinese consumers must exercise more caution than US consumers in judging potential benefits relative to potential costs in their purchase decisions. In addition, the Chinese people generally are more face-concerned and risk-averse than Americans who are more self-concerned and adventurous. As indicated by the qualitative study informants, primarily the Chinese Gen Y group, health risks related to hair coloring were seen as is the perceived risk that the use of hair coloring could negatively influence the physiological health of the hair and/or the consumer.

Based on the theoretical and empirical research findings regarding health risks, it is hypothesized that:

**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.

### *Within-Cultural Comparisons*

Comparisons made within cultural groups were based mainly on the preliminary research in the current study. As indicated by this research, Chinese Gen Y informants appeared to have a strong preference for salon hair coloring instead of hair coloring done at home. The reasons expressed for this preference included salons being better equipped, salon personnel creating better outcomes, personnel providing expert suggestions as needed, avoiding damage to the hair, and avoiding the mess of doing it at home. The study informants expressed clearly that they felt more secure about the results from salon hair coloring than doing it on their own.

On the other hand, the US group put more emphasis on the positive emotional aspects of having their hair colored in a salon. For example, most US informants expressed the good feelings they experienced with the whole coloring process, including interaction with the salon personnel, time to relax, being pampered by others, and feeling special about themselves. In addition, they also enjoyed the results of salon hair coloring more than the results they felt they could obtain at home. Therefore, for the US Gen Y group, it appeared that the emotional value

dimension of CPV was the most dominant value of they expressed. Based on the above, it is hypothesized that:

**H8:** Quality value will be the most influential value for Chinese Gen Y consumers relative to their perceptions of salon hair coloring.

**H9:** Emotional value will be the most influential value for US Gen Y consumers relative to their perceptions of salon hair coloring.

Both Gen Y groups under investigation knew very well that certain “sacrifices” were necessary during the exchange process for salon hair coloring. On one hand, as indicated by the Chinese Gen Y informants, the number one concern for them was the health risks associated with hair coloring. Informants concerns included worry about the potential of skin cancer, brain cancer, headaches, allergies, and harm to their hair. They expressed clearly that should any validated harm take place, they would stop hair coloring immediately. On the other hand, as indicated by the US Gen Y informants, monetary cost was the number one factor that could prevent their salon visits. In fact, all the US informants pointed out that there was a significant difference between having hair coloring service in a salon and doing it at home in terms of price. Given that the informants were still attending school and were not yet financially independent and established, they appeared to view monetary cost as the major problem with having hair coloring done in a professional salon. Based on the preliminary study data, it is postulated that:

**H10:** Health risk costs will be the most influential cost for Chinese Gen Y consumers relative to their perceptions of salon hair coloring.

**H11:** Monetary cost will be the most influential cost for US Gen Y consumers relative to their perceptions of salon hair coloring.

### **Study Sample**

Although this study defines Gen Y consumers as people born between 1977 and 1994, only older 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 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 older Gen Y participants recruited for this study, 249 Chinese Gen Y consumers and 200 US Gen Y consumers, were drawn from college students,

both part-time and full-time, enrolled in four universities, three in China and one in the United States. To ensure diversity of the sample, student participants from multiple disciplines were recruited from each university, including different majors and departments from the schools of business, nursing, human environmental sciences, arts and sciences, and architecture. For the Chinese Gen Y group, three universities participated in the survey, including Xi’an Foreign Language University, Xi’an Jiaotong University, and ChangAn University in Xi’an. For the US Gen Y group, a major university in the Southeast participated in the study. Of those participating, 82% were enrolled in full-time programs. Also, approximately 82% of the sample was female and 18% male (see Table 3.3).

Table 3.3  
Descriptive Statistics of Participants

	<b>Chinese Sample</b>	<b>U.S. Sample</b>
Number of Participants	Xi’an Foreign Language U.: 80 Xi’an Jiaotong U.: 66 ChangAn U.: 103 Overall: 249	One major university in Southeast: 200  Overall: 200
Gender	Male: 61 Female: 188	Male: 21 Female: 179
Occupation	Full-time Student: 213 Part-time Student: 36	Full-time Student: 157 Part-time Student: 43

Source: Study Survey

### **Survey Instrument Development**

In order to test the study's 11 hypotheses that explore consumer perceived value of salon hair coloring for Gen Y consumers in China and the United States, an initial survey was developed using extant scales from the literature and modifying those scales to reflect the study topic, as well as the relevant findings from the preliminary qualitative study. The initial instrument in English was double translated into Chinese, i.e., the original English version was translated into Chinese by the primary researcher and the Chinese version was then re-translated back into English independently by a Chinese-speaking research assistant. Any inconsistencies found were reviewed and resolved at a 95% agreement level. The English and Chinese versions of the survey were then recompiled and pre-tested. The English survey instrument was pre-tested with 10 American students to determine any unforeseen problems with question content, language ambiguity, sequencing of questions, the time needed to complete the questionnaire, and/or any other problem encountered by the respondents. The Chinese survey instrument was likewise pre-tested with 10 Chinese graduate students, giving particular care to any language issues. After pre-testing and review, suggested changes were made to the survey, and the survey was finalized, as shown in Appendix C.

The constructs explored in this study included quality value, emotional value, epistemic value, social value, monetary cost, time/effort cost, and health risk as well

as global measurements of overall CPV. Table 3.4 summarizes the extant studies from which the scales were borrowed and/or adapted for the study.

Table 3.4  
Constructs and Measurement Items from the Extant Literature

<b>Constructs</b>	<b>Measurement Items</b>	<b>Previous Research</b>
Quality value	Please rate each item on a scale from 1, definitely false, to 5 definitely true for the service. <ol style="list-style-type: none"> <li>1. ABC is outstanding quality.</li> <li>2. ABC is very reliable.</li> <li>3. ABC is very dependable.</li> <li>4. ABC is very consistent.</li> </ol>	Petrick (2002)
Emotional value	Please evaluate each item on a 7-point Likert type scale, ranging from strongly disagree (1) to strongly agree (7). <ol style="list-style-type: none"> <li>1. ABC is one that I would enjoy.</li> <li>2. ABC would make me want to use it.</li> <li>3. ABC is one that I would feel relaxed about having.</li> <li>4. ABC would make me feel good.</li> <li>5. ABC would give me pleasure.</li> </ol>	Sweeney & Soutar (2001)
Epistemic value	Please evaluate each item on a 7-point Likert type scale, ranging from strongly disagree (1) to strongly agree (7). <ol style="list-style-type: none"> <li>1. I use ABC to test the new technologies.</li> <li>2. I use ABC to experiment with new ways of doing things.</li> <li>3. I use ABC out of curiosity.</li> </ol>	Pura (2002)
Social value	Please evaluate each item on a 7-point Likert type scale, ranging from strongly disagree (1) to strongly agree (7). <ol style="list-style-type: none"> <li>1. ABC would help me to feel acceptable.</li> <li>2. ABC would improve the way I am perceived.</li> <li>3. ABC would make a good impression on other people.</li> <li>4. ABC would give me social approval.</li> </ol>	Sweeney & Soutar (2001)

Table 3.4  
Constructs and Measurement Items from the Extant Literature (continued)

<b>Constructs</b>	<b>Measurement Items</b>	<b>Previous Research</b>
Monetary cost	<p>Please evaluate each item on a 7-point Likert type scale, ranging from strongly disagree (1) to strongly agree (7).</p> <ol style="list-style-type: none"> <li>1. ABC is reasonably priced.</li> <li>2. ABC offers value for the money.</li> <li>3. ABC is a good service for the price</li> <li>4. ABC would be economical.</li> </ol>	Sweeney & Soutar (2001)
Time/Effort cost	<p>Please evaluate each item on a 5-point Likert type scale, ranging from very small (1) to very large (5).</p> <ol style="list-style-type: none"> <li>1. I would waste a lot of time by having ABC.</li> <li>2. I would lose studying time buy stopping to have ABC.</li> <li>3. I would be late for class because of ABC.</li> <li>4. I would waste a large portion of the day by having ABC.</li> <li>5. I would have to make a special trip to have ABC.</li> </ol>	Rindfleisch & Crockett (1999)
Health risk cost	<p>Please evaluate each item on a 5-point Likert type scale, ranging from very small (1) to very large (5).</p> <ol style="list-style-type: none"> <li>1. ABC would get me lung cancer.</li> <li>2. ABC would get me heart disease.</li> <li>3. ABC would get me a stroke.</li> <li>4. ABC would get me clogged lungs.</li> <li>5. ABC would hurt my level of physical fitness.</li> </ol>	Rindfleisch & Crockett (1999)
CPV	<p>Please evaluate each item on a 7-point Likert type scale, ranging from strongly disagree (1) to strongly agree (7).</p> <ol style="list-style-type: none"> <li>1. Compared with the price I paid, ABC provides good eTail service value.</li> <li>2. Compared with the tangible and intangible costs I paid, using ABC is worthwhile.</li> <li>3. I think I am getting good value for the money I spent.</li> </ol>	Lin, Sher, & Shih (2005)

Source: Literature Review

## *Survey Constructs and Measurement Items*

### **Quality Value**

Quality value has been defined as a consumer's judgment about a product or service's overall excellence or superiority (Zeithaml, 1988). The quality value construct was assessed using the Quality Scale developed by Petrick (2002) in a study developing a multi-dimensional scale for measuring consumer perceived value of a service. An example scale item is "ABC is outstanding quality." This is a four-item scale with a composite reliability score of 0.79, which means the scale is reliable measuring the respective construct (Fornell & Larcker, 1981). The scale was adapted by substituting "salon hair coloring" for ABC as shown in Appendix B, questions 1 through 4.

### **Emotional Value**

Emotional value has been defined in the literature as the utility derived from the feelings or affective states that a product or service generates (Sweeney & Soutar, 2001). The emotional value construct was measured in this study by using a five-item scale called the Emotional Value Scale developed by Sweeney and Soutar (2001) in their study developing a multiple item scale for measuring consumer perceived value of a durable good at the brand level. An example item for the scale is "ABC is one that I would enjoy." Although the scale was originally designed with a product, not service, in mind, it appears to be suitable to capture the essence of the emotional value of using a service as well. This scale was adapted by

substituting “salon hair coloring” for ABC as shown in Appendix B, questions 5 through 9. The scale in its original use demonstrated a high level of composite reliability, 0.94.

### **Epistemic Value**

Epistemic value has been defined as the experienced curiosity, novelty, or gained knowledge from a product or service (Sheth et al., 1991). The epistemic value construct was assessed using the Epistemic Value Scale developed by Pura (2004) in a study of the consumer perceived value of mobile phone services. An example scale item is “I use ABC to test the new technologies.” This is a three-item scale with a Cronbach’s alpha of 0.80, indicating good reliability. The scale was adapted by substituting “salon hair coloring” for ABC, as well as changing “new technologies” to “new looks,” a phrase suggested by the preliminary research in which informants used hair coloring to try “new looks.” The corresponding questions shown in Appendix B are questions 10 through 12.

### **Social Value**

Social value has been defined as the utility derived from the product’s/service’s ability to enhance social self-concept (Sweeney & Soutar, 2001). The social value construct was measured in this study by a four-item scale called the Social Value Scale developed by Sweeney and Soutar (2001) in their study developing a multiple item scale for measuring consumer perceived value of a durable good at the brand level. An example scale item is “ABC would help me to feel acceptable.” This

scale seemed to be appropriate for hair coloring given the focus on adornment. The scale was adapted by substituting “salon hair coloring” for ABC, as shown in Appendix B, questions 13 through 16. The scale demonstrated an acceptable level of composite reliability, 0.82, in the original study.

### **Monetary Cost**

Monetary cost has been defined as the price of a service as encoded by the consumer (Petrick, 2002). The monetary cost construct was assessed in this study the use of a four-item scale called the Price/Value Scale developed by Sweeney and Soutar (2001) in their study developing a multiple item scale for measuring CPV of a durable good at the brand level. An example scale item is “ABC is reasonably priced.” The scale was adapted by substituting “salon hair coloring” for ABC, as shown in Appendix B, questions 22 through 25. The scale demonstrated a satisfactory level of composite reliability, 0.80, in the original study.

### **Time/Effort Cost**

Time/effort cost has been defined as the perceived cost of hair coloring associated with the time that a consumer allocates to the experience (Rindfleisch & Crockett, 1999). As indicated by the informants in the preliminary research, the time/effort cost of salon hair coloring perceived by consumers included making the trip to the salon and the time spent while having their hair done. The time/effort cost construct was assessed using the Time Risk Scale developed by Rindfleisch and Crockett (1999) in their study of perceived risk relative to smoking. An example

scale item is “I would waste a lot of time by having ABC.” This is a five-item scale with a Cronbach’s alpha of 0.81, indicating good reliability. The scale was adapted by substituting “salon hair coloring” for ABC, as shown in Appendix B, questions 26 through 30.

### **Health Risk Cost**

Health risk cost has been defined as the perceived risk that the use of hair coloring can negatively impact the physiological health of the consumer (Rindfleisch & Crockett, 1999). As found in the research (Trueb, 2005) and indicated by the informants in the preliminary qualitative study, the health risk of hair coloring perceived by consumers includes unhealthy hair, allergy, headache, and cancer. The health risk construct was measured using the Health Risk Scale developed by Rindfleisch and Crockett (1999) in the study of perceived risk relative to smoking. An example scale item is “ABC would get me lung cancer.” This is a five-item scale with a Cronbach’s alpha of 0.93, indicating high reliability. The scale was adapted by substituting “salon hair coloring” for ABC, as well as substituting “lung cancer” with “cancer,” “heart disease” with “unhealthy hair,” “stroke” with “headache,” and “clogged lungs” with “allergy.” The corresponding questions shown in Appendix B are questions 17 through 21.

### **Consumer Perceived Value (CPV)**

CPV has been defined as the consumer’s overall judgment of the value of the trade-off between what is received and what is given for a product or a service

(Zeithaml, 1988). The CPV construct was measured using a three-item Sacrifice Scale developed by Lin, Sher, and Shih (2005) in a study of eTail service value in Taiwan. An example survey item is “Compared with the price you paid, ABC provides good eTail service value.” This scale had a composite reliability score greater than the acceptable level of 0.70 [the authors reported this statistic in this fashion, with no exact statistic provided], which means the scale is reliable measuring the respective construct (Fornell & Larcker, 1981). The scale was adapted by substituting “salon hair coloring” for ABC, as shown in Appendix B, questions 38 through 40.

### **Data Collection Procedures**

The Chinese data was collected in Xi’an, the capital city of Shaanxi province, during the last week of April, 2006 and the first week of May, 2006. The surveys were distributed in three major universities in Xi’an and were administered by the researcher. Simultaneously, data for the US sample was collected with the assistance of the researcher’s major professor and colleagues in a major university in the Southeast United States. To ensure a systematic procedure throughout the data collection process, agreed instructions were developed and followed for data collection in both countries.

One thousand four hundred questionnaires were distributed during class time, 700 surveys in China (304 to males and 396 to females) and 700 surveys (117 to males and 583 to females) in the United States. For the Chinese Gen Y group, 18

surveys were not included in the analysis because of missing values in the main section; 27 surveys were not included in the study because the respondents were not between the ages of 18 and 28; and 404 surveys were not included because they were completed by students who had no experience with salon hair coloring, while 249 surveys met all criteria and were usable. A total of 698 surveys were returned out of 700 distributed. Thus, the relevant response rate for the Chinese sample was 35.6%. For the US Gen Y group, 43 surveys were not included in the analysis because of missing values in the main section; 55 surveys were not included in the study because the respondents didn't fall into the Gen Y category; and 402 surveys were not included because they were completed by students who had no experience with salon hair coloring, while 200 surveys were returned and usable. A total of 700 surveys was returned. Thus, the relevant response rate for the US sample was 28.6%. Overall, 1400 questionnaires were administered resulting in a total of 449 usable surveys, a 32.1% overall response rate. Table 3.5 summarizes the profile of the sample participants.

Table 3.5  
Sample Profile

<b>Country</b>	<b>Survey Distributed</b>	<b>Survey Usable</b>	<b>Response Rate</b>
China	700	249	35.6%
United States	700	200	28.6%
Overall	1400	449	32.1%

Source: Study Survey

### **Data Analysis Techniques**

A variety of statistical procedures, including the Statistical Package for the Social Sciences (SPSS) 14 and Linear Structural Relations (LISREL) 8 (Joreskog and Sorbom, 1993), were employed to analyze the study data. Specifically, the first seven hypotheses (cross-cultural comparisons) were tested by the Independent Samples T-Test, using SPSS, and the last four hypotheses (within-cultural comparisons) were tested by Confirmatory Factor Analysis (CFA) in Structural Equation Modeling (SEM), using LISREL.

Given that many statistical procedures to be used during this study assume that data are normally distributed, for instance, GLM (Multivariate), among others, 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. Skewness is a measure of the symmetry of a distribution compared to a normal distribution. Kurtosis is a measure of peakness or flatness of a distribution compared to a normal distribution. An absolute value of the skewness coefficient or kurtosis larger than one indicates that a variable does not have 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  $\leq 0.05$ .

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. 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, using SEM (1995). The primary reasons for selecting the SEM technique in this study are based on the work of Steenkamp and Baumgartner (2000), which suggests that three capabilities make SEM an excellent fit for study such as this one: (1) SEM is capable of dealing with unobservable constructs (latent variables); (2) SEM is capable of capturing the interplay between constructs and measures, which is critical in model testing; and (3) SEM is more focused on explaining marketing phenomena than on predicting specific outcome variables, which is in line with the research question of this study.

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 ( $\chi^2$ ), 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 .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.

If the most restrictive assumption is not supported, testing partial invariance should be performed by analyzing the seven exogenous latent variables and the endogenous latent variable separately. For example, to analyze the seven exogenous latent variables, the steps (from the most restrictive to the most relaxed) are to: (1) test the assumption of equal factor covariances, factor loadings, and error variances between the two samples. If the statistics, RMSEA, GFI, and NNFI indicate no support for the assumption, then; (2) test the assumption of equal factor covariances and factor loadings, as well as the same pattern of error variances between the two samples. If the statistics, RMSEA, GFI, and NNFI indicate no support for this assumption, then; (3) test the assumption of equal factor covariances, as well as the same pattern of factor loadings and error variances. If the statistics, RMSEA, GFI, and NNFI indicate no support for the assumption, then; (4) test the assumption of the same pattern of factor covariances, factor loadings, and error variances. The steps would be the same for analyzing the endogenous latent variable until a certain level of measurement invariance is confirmed. As appropriate the previous steps were applied.

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. Thereafter, hypotheses 8 to 11 were tested by comparing path coefficients within the two samples individually. The overall procedure for data analysis is listed in Table 3.6.

Table 3.6  
Data Analysis Procedure

<b>Step</b>	<b>Analysis</b>	<b>Software Package</b>	<b>Purpose</b>
1	Item Analysis	SPSS 14	Investigation of sample characteristics Investigation of item means, SD, Skewness, Kurtosis.
2	Data Reduction	SPSS 14	Investigation of scale means, SD, Skewness, Kurtosis Assessment of face validity Assessment of reliability (Cronbach's alpha) Creation of composite measures for each construct
3	Independent Samples T-Test	SPSS 14	Hypotheses Testing 1-7
4	Multi-group Analysis	LISREL 8	Assessment of measurement invariance
5	Confirmatory Factor Analysis	LISREL 8	Hypotheses Testing 8-11

## **CHAPTER IV**

### **ANALYSIS AND RESULTS**

Chapter IV presents the following sections: (1) Descriptive Statistics; and (2) Hypothesis Testing.

#### **Descriptive Statistics**

Data were entered into the SPSS package for analysis, with each column representing a variable and each row of the worksheet devoted to one respondent. To make comparisons between the two samples, data from both countries were included in the same worksheet. A dummy variable “Country” was created to categorize the data, with “1” corresponding to data from the Chinese sample and “2” corresponding to data from the US sample.

As discussed in Chapter III, eight constructs were included in the proposed model, including seven constructs representing the seven value dimensions and one construct for CPV. Overall, 33 measurement items from the questionnaires were used for this study. Specifically, items 1 through 4 were designed for measuring quality value (QV), items 5 through 9 for emotional value (EV), items 10 through 12 for epistemic value (EPV), items 13 through 16 for social value (SV), items 22 through 25 for monetary cost (MC), items 26 through 30 for time/effort cost (TC),

items 17 through 21 for health risk cost (HC), and items 38 through 40 for CPV.

Table 4.1 presents the descriptive statistics for the 33 items used in the study analyses.

Table 4.1  
Descriptive Statistics for Item Variables

Item #	Mean		Std. Deviation		Skewness		Kurtosis	
	Chinese	US	Chinese	US	Chinese	US	Chinese	US
1	5.30	5.47	1.43	1.30	-1.04 *	-0.96	0.50	1.10 *
2	4.84	5.21	1.39	1.35	-0.71	-0.56	-0.13	-0.14
3	4.50	5.36	1.42	1.37	-0.22	-0.81	-0.81	0.33
4	4.43	5.21	1.51	1.36	-0.18	-0.63	-0.64	0.00
5	4.32	5.43	1.61	1.32	-0.32	-0.77	-0.61	0.38
6	3.95	5.35	1.60	1.33	-0.26	-0.85	-0.70	0.60
7	4.06	5.15	1.59	1.43	-0.11	-0.80	-0.73	0.29
8	4.19	5.46	1.53	1.35	-0.17	-1.01	-0.67	0.89
9	3.90	5.29	1.56	1.44	-0.01	-0.91	-0.55	0.44
10	5.86	5.32	0.78	1.43	-0.27	-0.86	-0.31	0.30
11	5.72	5.31	0.92	1.38	-0.36	-0.86	-0.35	0.32
12	5.16	5.30	1.00	1.33	-0.08	-0.81	-0.50	0.48
13	4.23	4.87	1.43	1.51	-0.17	-0.42	-0.24	-0.31
14	4.37	4.90	1.58	1.41	-0.34	-0.30	-0.56	-0.38
15	4.11	4.97	1.51	1.36	-0.22	-0.57	-0.56	0.39
16	3.82	4.66	1.59	1.52	0.06	-0.35	-0.49	-0.33
17	4.38	2.53	1.71	1.57	-0.39	0.69	-0.59	-0.43
18	5.35	4.55	1.39	1.85	-0.90	-0.47	0.82	-0.75
19	4.25	3.14	1.46	1.72	-0.24	0.38	-0.26	-0.76
20	4.60	3.50	1.47	1.66	-0.39	0.04	-0.39	-0.91
21	4.80	2.16	1.41	1.44	-0.42	1.13 *	-0.16	0.24
22	4.70	4.71	1.54	1.52	-0.37	-0.19	-0.39	-0.49
23	4.67	4.31	1.62	1.44	-0.38	0.05	-0.69	-0.51
24	5.20	4.76	1.61	1.38	-0.66	-0.13	-0.33	-0.24
25	4.85	4.13	1.62	1.49	-0.43	0.03	-0.64	-0.28
26	4.09	3.83	1.83	1.69	0.03	0.06	-1.07 *	-0.96
27	4.22	3.93	1.77	1.70	-0.16	-0.14	-1.07 *	-0.88
28	3.68	4.21	1.78	1.76	0.18	-0.31	-0.97	-0.79
29	4.12	4.13	1.89	1.67	-0.13	-0.17	-1.17 *	-0.79
30	4.46	5.00	1.80	1.62	-0.26	-0.80	-1.06 *	-0.03
38	4.51	4.66	1.45	1.38	-0.45	-0.29	-0.50	-0.49
39	4.41	4.67	1.38	1.37	-0.24	-0.32	-0.53	-0.39
40	4.43	4.71	1.49	1.43	-0.39	-0.37	-0.60	-0.44

Note: \* indicates absolute value of skewness and kurtosis larger than one

As shown in Table 4.1, some item variables (i.e., 1, 21, 26, 27, 29, and 30) exhibited skewness and kurtosis values larger than acceptable for normal distribution ( $> /+ - 1.00/$ ). To investigate the distribution of these variables further, the Kolmogorov-Smirnov test was conducted and the calculated statistics were significant at  $p < 0.00$  for all variables. Therefore, all the item variables were considered to have an approximately normal distribution and could be used in the study analyses.

Inter-item correlations for the study constructs would were carefully analyzed to check for possible multi-collinearity between constructs. Results indicated that no correlations were above 0.7, and it was assumed based on these results that multi-collinearity would not be an issue during analysis procedures (Hair et al., 1998)

Table 4.2 displays the descriptive statistics for the study's eight constructs. The analysis of the scales' reliability was based on calculating Cronbach's alpha. As explained in Chapter III, the items for each construct were averaged to represent each individual's score for that construct subject to the reliability measure for each construct exceeding the threshold point of a Cronbach's alpha  $\geq 0.7$  as suggested by Nunnally (1978). The Cronbach's alpha calculated for the eight constructs are presented in parentheses in Table 4.2. 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.

Although the Cronbach's alpha for the EPV construct fell below Nunnally's 0.7 criterion, taking into account the exploratory nature of this research, a Cronbach's alpha of 0.63 is considered to be acceptable (Hair et al. 1998, p.118). Furthermore, according to Hui (1988), a Cronbach's alpha  $\geq 0.50$  is considered very acceptable for a multidimensional construct in cross-cultural research. Consequently, the 0.63 Cronbach's alpha for EPV was deemed acceptable for the purposes of this study.

Table 4.2  
Descriptive Statistics for Eight Constructs

Sample	Construct	Mean	Std. Deviation	Skewness	Kurtosis
Chinese Gen Y	QV (0.81)	4.77	1.14	-0.46	0.28
US Gen Y	QV (0.95)	5.31	1.25	-0.72	0.40
Chinese Gen Y	EV (0.88)	4.09	1.30	-0.20	-0.36
US Gen Y	EV (0.90)	5.33	1.16	-0.85	0.95
Chinese Gen Y	EPV (0.63)	5.58	0.68	-0.07	-0.18
US Gen Y	EPV (0.85)	5.31	1.21	-0.89	0.97
Chinese Gen Y	SV (0.86)	4.13	1.28	-0.13	-0.22
US Gen Y	SV (0.90)	4.85	1.27	-0.31	-0.21
Chinese Gen Y	MC (0.87)	4.85	1.36	-0.32	-0.53
US Gen Y	MC (0.86)	4.48	1.22	-0.08	-0.04
Chinese Gen Y	TC (0.92)	4.11	1.57	-0.14	-0.98
US Gen Y	TC (0.86)	4.21	1.35	-0.12	-0.30
Chinese Gen Y	HC (0.84)	4.68	1.17	-0.36	0.41
US Gen Y	HC (0.81)	3.17	1.24	0.25	-0.48
Chinese Gen Y	CPV (0.82)	4.45	1.23	-0.33	-0.17
US Gen Y	CPV (0.84)	4.68	1.21	-0.31	-0.22

To assess the normality of the distributions, in addition to the skewness coefficient and kurtosis, distributions of all constructs of the study were analyzed employing histograms. The histogram analysis indicated that all eight of the study's constructs were approximately normally distributed.

### **Hypothesis Testing**

This study proposed 11 hypotheses in order to compare Gen Y consumers' perceived value of salon hair coloring in China and the United States. The first seven hypotheses explored cross-cultural comparisons between the two consumer groups while the remaining four hypotheses evaluated within-culture comparisons for both consumer groups.

#### ***Cross-Cultural Comparisons: H1-H7***

To test the first 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 4.3 summarizes the group statistics between the two samples for Hypotheses 1 through 7 in numerical order.

Table 4.4 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  $\leq 0.05$ , 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  $\leq 0.05$ , 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 4.4.

Table 4.3  
Sample Statistics

<b>Construct</b>	<b>Sample</b>	<b>Sample Size</b>	<b>Std. Deviation</b>	<b>Mean</b>
H1: QV	Chinese Gen Y	249	1.14	4.77
	US Gen Y	200	1.25	5.31
H2: EV	Chinese Gen Y	249	1.30	4.09
	US Gen Y	200	1.16	5.33
H3: EPV	Chinese Gen Y	249	0.68	5.58
	US Gen Y	200	1.21	5.31
H4: SV	Chinese Gen Y	249	1.28	4.13
	US Gen Y	200	1.27	4.85
H5: MC	Chinese Gen Y	249	1.36	4.85
	US Gen Y	200	1.22	4.48
H6: TC	Chinese Gen Y	249	1.57	4.12
	US Gen Y	200	1.35	4.22
H7: HC	Chinese Gen Y	249	1.17	4.68
	US Gen Y	200	1.24	3.17

Table 4.4  
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)
<b>H1: QV</b>	Equal variances assumed	1.337	.248	<b>-4.775</b>	<b>447</b>	<b>.1132</b>	<b>-.5407 *</b>	<b>.000</b>
	Equal variances not assumed			-4.729	408.316	.1143	-.5407	.000
<b>H2: EV</b>	Equal variances assumed	3.399	.066	<b>-10.595</b>	<b>447</b>	<b>.1179</b>	<b>-1.2489 *</b>	<b>.000</b>
	Equal variances not assumed			-10.725	441.874	.1164	-1.2489	.000
<b>H3: EPV</b>	Equal variances assumed	53.789	.000	2.974	447	.091	.270	.003
	Equal variances not assumed			<b>2.809</b>	<b>297.121</b>	<b>.096</b>	<b>.270 **</b>	<b>.005</b>
<b>H4: SV</b>	Equal variances assumed	.072	.789	<b>-5.906</b>	<b>447</b>	<b>.121</b>	<b>-.717 *</b>	<b>.000</b>
	Equal variances not assumed			-5.911	427.525	.121	-.717	.000
<b>H5: MC</b>	Equal variances assumed	4.127	.043	3.054	447	.12348	.37716	.002
	Equal variances not assumed			<b>3.090</b>	<b>441.275</b>	<b>.12207</b>	<b>.37716 **</b>	<b>.002</b>
<b>H6: TC</b>	Equal variances assumed	10.941	.001	-.729	447	.1401	-.1021	.466
	Equal variances not assumed			<b>-.741</b>	<b>444.821</b>	<b>.1379</b>	<b>-.1021 *</b>	<b>.459</b>
<b>H7: HC</b>	Equal variances assumed	3.849	.050	13.166	447	.1140	1.5015	.000
	Equal variances not assumed			<b>13.085</b>	<b>415.462</b>	<b>.1147</b>	<b>1.5015 **</b>	<b>.000</b>

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

### **Hypothesis 1**

**H1:** The quality value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

Hypothesis 1 predicted that the Chinese sample would perceive higher levels of quality value for salon hair coloring than the US sample, i.e., have a higher mean for the quality value construct (QV) than the US sample. As shown in Table 4.4, the F-value from the Levene's Test was not significant in the case of QV, which meant that equal variances of QV between the two samples could be assumed and the results for the T-Test found in the first row. Contrary to the predicted relationship, the Chinese sample had a smaller mean of QV than the US sample by 0.54, which was a significant mean difference at the alpha level  $\leq 0.05$ . Therefore, Hypothesis 1 was not supported and quality value had a statistically higher mean for the US Gen Y sample, implying greater importance for US Gen Y consumers.

### **Hypothesis 2**

**H2:** The emotional value of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.

Hypothesis 2 predicted that Chinese Gen Y consumers would perceive lower levels of emotional value for salon hair coloring than US Gen Y consumers, i.e., the Chinese sample would have a smaller mean relative to the emotional value construct (EV) than the US sample. As shown in Table 4.4, the F-value from the Levene's

Test was not significant in the case of EV, meaning equal variances of EV between the two samples could be assumed and the results for the T-Test were found in the first row. As the hypothesis predicted, the Chinese sample had a smaller mean of EV than the US sample by 1.25, a significant mean difference at the alpha level  $\leq 0.05$ . Therefore, Hypothesis 2 was supported and it appeared that Chinese Gen Y consumers did perceive a lower level of emotional value than US Gen Y consumers, implying that this value had greater importance for US Gen Y consumers.

### **Hypothesis 3**

**H3:** The epistemic value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

Hypothesis 3 predicted that Chinese Gen Y consumers would perceive higher levels of epistemic value for salon hair coloring. In other words, the Chinese sample was expected to have a larger mean for the epistemic value construct (EPV) than the US sample. As shown in Table 4.4, the F-value from the Levene's Test was significant in the case of EPV, which meant that equal variances of EPV between the two samples could not be assumed and the results for the T-Test were found in the second row. As the hypothesis predicted, the Chinese sample had a larger mean for EPV than the US sample by 0.27, which was a significant mean difference at the alpha level  $\leq 0.05$ . Therefore, Hypothesis 3 was supported and Chinese Gen Y consumers perceived higher levels of epistemic value than US Gen Y consumers,

implying that epistemic value may have more importance for Chinese Gen Y consumers.

#### **Hypothesis 4**

**H4:** The social value of salon hair coloring will be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers.

Hypothesis 4 predicted that Chinese Gen Y consumers would perceive higher levels of social value than US Gen Y consumers relative to salon hair coloring. In other words, the Chinese sample would exhibit a larger mean for the social value construct (SV) than the US sample. As shown in Table 4.4, the F-value from the Levene's Test was not significant in the case of SV, which meant that equal variances of SV between the two samples could be assumed and the results for the T-Test were found in the first row of test statistics. Contrary to the hypothesis prediction, the Chinese sample had a smaller mean for the SV construct than the US sample by 0.72, which was a significant mean difference at the alpha level  $\leq 0.05$ . Therefore, Hypothesis 4 was not supported, suggesting that social value may be less important to Chinese Gen Y consumers and more important to US Gen Y consumers.

#### **Hypothesis 5**

**H5:** The monetary costs of salon hair coloring will be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers.

Hypothesis 5 predicted that Chinese Gen Y consumers would perceive a lower level of monetary cost than US Gen Y consumers, i.e., the Chinese sample would

demonstrate a smaller mean for the monetary cost construct (MC) than the US sample. As shown in Table 4.4, the F-value from the Levene's Test was significant in the case of MC, which meant that equal variances of MC between the two samples could not be assumed and the results for the T-Test were found in the second row. Contrary to the hypothesis prediction, the Chinese sample had a larger mean of MC than the US sample by 0.38, which was a significant mean difference at the alpha level  $\leq 0.05$ . Therefore, Hypothesis 5 was not supported and it appeared that monetary costs may be more important to Chinese Gen Y consumers than US Gen Y consumers.

### **Hypothesis 6**

**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.

Hypothesis 6 predicted that Chinese Gen Y consumers would perceive lower levels of time/effort costs than US Gen Y consumers relative to salon hair coloring. In other words, the Chinese sample was expected to have a smaller mean for the time/effort cost construct (TC) than the US sample. As shown in Table 4.4, the F-value from the Levene's Test was significant in the case of TC, which meant that equal variances of TC between the two samples could not be assumed and the appropriate results for the T-Test were found in the second row. As the hypothesis predicted, the Chinese sample did, in fact, have a smaller mean for TC than the US sample by 0.10. However, the difference between the two means was not statistically significant at the alpha level  $\leq 0.05$ . Therefore, Hypothesis 6 was not

supported and time/effort costs appeared to have a similar level of importance to both the Chinese Gen Y consumers and the US Gen Y consumers.

### **Hypothesis 7**

**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.

Hypothesis 7 predicted that health risk cost would be perceived as higher by Chinese Gen Y consumers than US Gen Y consumers relative to salon hair coloring. In other words, the Chinese sample would have a larger mean for the health risk costs construct (HC) than the US sample. As shown in Table 4.4, the F-value from the Levene's Test was significant in the case of HC, which meant that equal variances of HC between the two samples could not be assumed and the appropriate results for the T-Test were found in the second row. As the hypothesis predicted, the Chinese sample had a larger mean for HC than the US sample by 1.50, which was a significant mean difference at alpha level  $\leq 0.05$ . Therefore, Hypothesis 7 was supported, suggesting that health risk cost may have more importance for Chinese Gen Y consumers than US Gen Y consumers.

## ***Within-Cultural Comparisons***

### **Test of Measurement Invariance**

Before testing the four within-cultural comparison hypotheses, multi-group analysis was conducted by SEM, using LISREL 8, to assess the measurement

invariance between the Chinese Gen Y sample and the US Gen Y sample. Table 4.5 displays the steps of this process and the results from each step.

Table 4.5  
Steps and Results for Testing Measurement Invariance Between the Study Samples

Assumptions	$\chi^2$	d.f.	p-value	RMSEA	90% C.I. for RMSEA	GFI	NNFI	Decisions
1 (Complete Model)	1462.82	561	0.00	0.069	(0.063, 0.075)	0.82	0.92	Partially Accepted
2 (Exogenous variables)	2103.69	849	0.00	0.081	(0.076, 0.085)	0.72	0.92	Partially Accepted
3 (Exogenous variables)	1759.43	819	0.00	0.076	(0.071, 0.080)	0.74	0.94	Partially Accepted
4 (Endogenous Variable)	5.43	6	0.49	0.00	(0.00, 0.081)	0.99	1.00	Accepted

Note: More detailed results for each test are included in Appendix D.

As outlined in Chapter III, the most restrictive format of measurement invariance was tested first, i.e., to investigate the assumption of equality of covariance matrices between the two samples (Assumption 1 in Table 4.5). The model in this case included all 33 item variables and all eight latent variables. The chi-square statistic was significant at the alpha level  $\leq 0.05$ , indicating no support for Assumption 1. The Root Mean Square Error of Approximation (RMSEA) at 0.069 and its 90% Confidence Interval with an upper value of 0.075, which is less than the 0.80 criterion, however, showed support for the assumption. A Goodness of Fit Index (GFI) of 0.82 was lower than the criteria level of 0.90, indicating insufficient support for the assumption. The GFI results, however, may need to be tempered due to the test's

sensitivity to sample size and the fact that the sample sizes involved in this study were smaller than 250 (Hu & Bentler, 1995). On the other hand, a Non-Normed Fit Index (NNFI) of 0.92 showed support for the assumption. Therefore, based on these indices, Assumption 1 was viewed as partially accepted. Although it could be appropriately concluded that measurement invariance exists between the two samples, a further analysis of partial invariance is warranted because of the initial mixed results for Assumption 1.

To test partial invariance, an analysis was conducted on the seven exogenous latent variables separately from the analysis on the one endogenous latent variable. Specifically, a model was first created to include only the seven exogenous latent variables and their corresponding item variables. It was assumed that the two samples had equal factor covariances, factor loadings, and error variances for the model (Assumption 2 in Table 4.5). The results demonstrated insufficient support for this assumption because, except for the NNFI statistic meeting the criterion of a good fit, all the other indices failed to meet their expected criteria. Therefore, Assumption 2 was rejected.

The next step was to test an assumption less restrictive for the same model as in Assumption 2 testing. This step assumed equal factor covariances and factor loadings, as well as the same pattern of error variances between the two samples (Assumption 3 in Table 4.5). The chi-square statistic in the results was still significant at the alpha level  $\leq 0.05$ , indicating no support for Assumption 2. An

RMSEA value of 0.076 and its 90% Confidence Interval capturing the upper value of 0.080, however, showed support for the assumption. The GFI had a value of 0.74, which was lower than the criteria level of 0.90, indicating insufficient support for the assumption. On the other hand, an NNFI of 0.92 showed support for the assumption. Therefore, based on these indices, Assumption 3 was partially accepted, and it was concluded that at least partial invariance between the two samples existed for the exogenous latent variables in the study.

The next step was analyzing a model that only included the one endogenous latent variable and its corresponding three item variables. It was assumed that the two samples had equal factor covariances, factor loadings, and error variances for the model (Assumption 4 in Table 4.5). The results indicated great support for the assumption because all the statistics met the criteria of good fit. Therefore, Assumption 4 was fully accepted, which supports at least partial invariance between the two samples for the endogenous latent variable in the study.

#### **Confirmatory Factor Analysis (CFA)**

Given that measurement invariance and/or partial invariance was confirmed for the two samples under discussion, a CFA in SEM was conducted to investigate the overall fit of the proposed conceptual model for both samples respectively. Table 4.6 displays the model fit statistics for the two samples. 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.

Table 4.6  
Model Fit Statistics for the Two Samples

<b>Gen Y Group</b>	$\chi^2$	<b>d.f.</b>	<b>p-value</b>	<b>RMSEA</b>	<b>90% C.I. for RMSEA</b>	<b>GFI</b>	<b>NNFI</b>	<b>Model Fit Decision</b>
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

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.

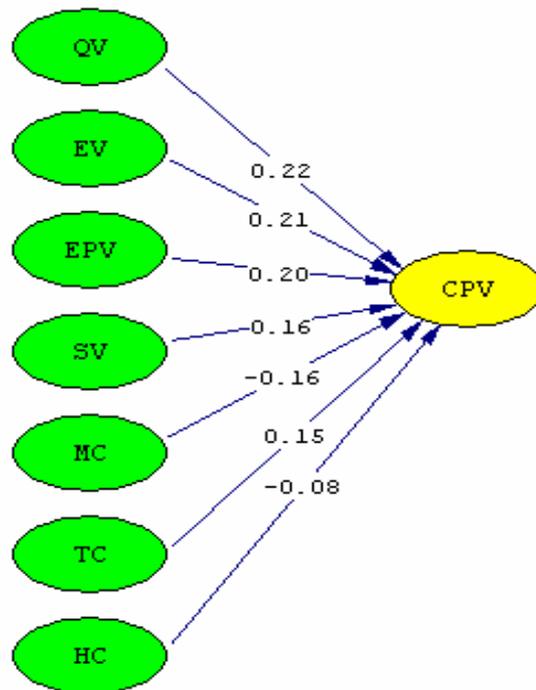
With reference to the proportion of variance accounted for by structural equations, the PSI-Matrix showed that the model explains approximately 56% of the variance in CPV for the Chinese sample while the PSI-Matrix showed that the model explains approximately 41% of the variance in CPV for the US sample,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

### **Model Overview**

Figure 4.1 represents the fit of the proposed model for the Chinese sample. The evidence provided by the path coefficients in Figure 4.1 (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.

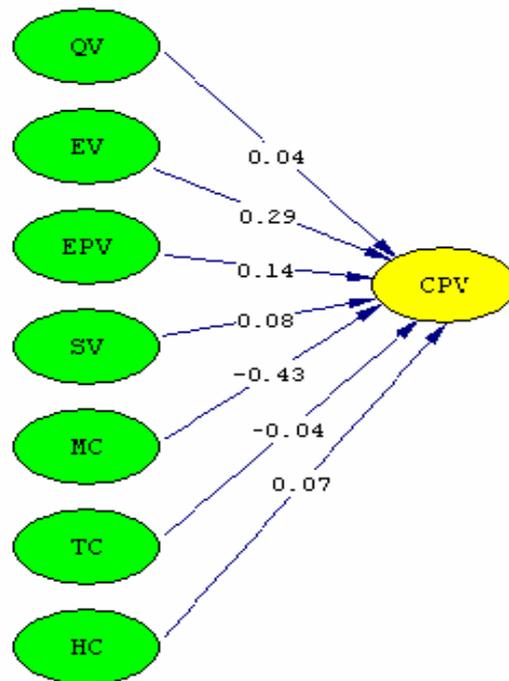
Figure 4.2 presents the fit of the proposed model for the US sample. Results of the analysis of the path coefficients in Figure 4.2 (effects of the seven exogenous

Figure 4.1  
Path Diagram of the Proposed Model for Chinese Gen Y Consumers



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 predicted 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.

Figure 4.2  
 Path Diagram of the Proposed Model for the US Gen Y consumers



**Hypothesis 8**

**H8:** Quality value will be the most influential value for Chinese Gen Y consumers relative to their perceptions of salon hair coloring.

Hypothesis 8 predicted that quality value would be the most influential value for Chinese Gen Y consumers relative to their perceptions of salon hair coloring. In other words, quality value (QV) was expected to have the largest absolute path coefficient value among the “benefits” constructs. As shown in Figure 4.1, the absolute value for the path coefficient of QV was 0.22, which was larger than those

absolute values for the path coefficient of EV, EPV, and SV in the “benefits” category. Therefore Hypothesis 8 was supported and quality value appeared to be the most influential value for Chinese Gen Y consumers.

### **Hypothesis 9**

**H9:** Emotional value will be the most influential value for US Gen Y consumers relative to their perceptions of salon hair coloring.

Hypothesis 9 predicted that emotional value would be the most influential value for Chinese Gen Y consumers relative to their perceptions of salon hair coloring. In other words, emotional value (EV) would have the largest absolute path coefficient value among the “benefits” category. As shown in Figure 4.2, the absolute value for the path coefficient of EV was 0.29, which was much larger than the absolute values for the path coefficient of QV, EPV, and SV in the “benefits” category. Therefore Hypothesis 9 was supported and emotional value appeared to be the most influential value for Chinese Gen Y consumers.

### **Hypothesis 10**

**H10:** Health risk costs will be the most influential cost for Chinese Gen Y consumers relative to their perceptions of salon hair coloring.

Hypothesis 10 predicted that health risk cost would be the most influential cost for Chinese Gen Y consumers relative to their perceptions of salon hair coloring. In other words, health risk cost (HC) would have the largest absolute path coefficient value in the “sacrifices” category. As shown in Figure 4.1, the absolute value for the

path coefficient of HC was 0.08, which was actually smaller than the absolute values for the path coefficient of MC and TC in the “sacrifices” category. Therefore Hypothesis 10 was rejected and monetary cost (MC) appeared to be the most influential cost for Chinese Gen Y consumers.

### **Hypotheses 11**

**H11:** Monetary cost will be the most influential cost for US Gen Y consumers relative to their perceptions of salon hair coloring.

Hypothesis 11 predicted that monetary cost would be the most influential cost for Chinese Gen Y consumers relative to their perceptions of salon hair coloring. In other words, monetary cost (MC) would have the largest absolute path coefficient value in the “sacrifices” category. As shown in Figure 4.2, the absolute value for the path coefficient of MC was 0.43, which was much larger than the absolute values for the path coefficient of TC and HC in the “sacrifices” category. Therefore Hypothesis Eleven was supported and monetary cost (MC) appeared to be the most influential cost for Chinese Gen Y consumers.

### **Summary of Hypothesis Tests**

As summarized in Table 4.7, six out the 11 hypotheses were supported by the statistical analysis.

Table 4.7  
Summary of Hypotheses Test

Hypothesis	Decision
1	Not supported
2	Supported
3	Supported
4	Not supported
5	Not supported
6	Not supported
7	Supported
8	Supported
9	Not supported
10	Supported
11	Supported

## **CHAPTER V**

### **SUMMARY AND CONCLUSIONS**

Chapter V presents following sections: (1) Study Summary; (2) Conclusions and Implications; (3) Contributions; (4) Limitations; and (5) Future Research.

#### **Study Summary**

The purpose of this study was to compare Gen Y consumers' perceived value of salon hair coloring in two different cultural settings: China and the United States.

Pursuing this research was important for several reasons. From a consumer perspective, the hair coloring category is a product category growing in importance both for older and younger consumers, given that more women today, as well as men, are turning to hair coloring to cover their gray and to remain youthful-looking and that manufacturers are providing fashionable, strong, and bright colors to tempt the nontraditional younger market into experimenting with hair color (Moore, 2005). However, little research has focused on hair coloring and how consumers in general value it.

This study was also important from an academic perspective. A review of the literature indicated that at this point in the development of the CPV research area, empirical studies have been relatively limited. Despite this, most of the findings available have suggested that CPV may be even more important than consumer

satisfaction in deciding behavioral intentions/consequences (Tam, 2004). Moreover, it has been found that consumers' perceptions of value vary across types of products investigated, the types of services provided, and across cultural settings, all of which suggest an imperative for investigation of CPV in a variety of contexts—including those explored in this study (Swait & Sweeney, 2000).

From a cross-cultural perspective, this research is important because it addresses the fact that the majority of CPV studies have been carried out in either a US setting or a developed nations setting, with few applications internationally or in developing nations. In fact, there have been few cross-cultural studies involving CPV research (see Overby, Gardial, and Woodruff [2004] for one exception), and there has been little research effort on CPV for appearance-related products and services, such as cosmetics, jewelry, and clothing. Furthermore, practically nothing is known about hair coloring from a cross-cultural perspective. Surprisingly, in general, not much effort has been directed to comparative consumer behavior research between China and the United States, despite their evident roles as two of the most important markets in the world.

This study has contributed to the literature by addressing the dearth of CPV research, hair coloring research, as well as cross-cultural research combining these areas. After a preliminary qualitative study and an intensive literature review, 11 hypotheses were proposed. These hypotheses were explored and tested using data

obtained by the survey method. Of the 11 hypotheses proposed, 6 hypotheses were supported.

### **Conclusions and Implications**

#### ***Comparing Chinese and US Gen Y Consumers' CPV for Salon Hair Coloring***

One of the key purposes of this study was to determine differences and similarities between Gen Y consumers in China and the United States relative to salon hair coloring. Looking across the first 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.

When looking across the means of the constructs explored in this study, the two value constructs that exhibited the largest difference between the sample means were emotional value and health risk costs. The US sample had the higher mean for emotional value, and the Chinese sample had the higher mean for health risk costs.

In fact, the emotional value mean for the US sample was the highest US mean across all seven constructs. These results directly and accurately reflected the findings of the preliminary qualitative study, where respondents in the US sample placed strong emphasis on the personal happiness they derived from the salon hair coloring experience and where the Chinese respondents were preoccupied with the negative consequences of hair coloring, some of which they believed could even be life-threatening. It should also be noted that the only construct in the first seven hypotheses where the mean for both samples exceeded 5.0 was epistemic value, suggesting that Gen Y consumers in both China and the United States were curious and seeking new experiences relative to salon hair coloring, with the Chinese having the higher level of curiosity of the two samples. Although hair coloring for younger generations has been available in the market for decades, this study indicated that this consumer group still maintains a high level of curiosity and interest for this product, which has significant implications for salon hair coloring and hair coloring in general in terms of the Gen Y market possibilities for both countries.

Looking across the first seven hypotheses that investigated cross-cultural comparisons between Chinese Gen Y consumers and US Gen Y consumers, three hypotheses were supported (emotional value, epistemic value, and health risk cost) and four were not (quality value, social value, monetary cost, and time/effort cost). 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.

As for the four hypotheses that were not supported by the quantitative data analysis, 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.

Contrary to the predication made for Hypothesis 1, the quality value of salon hair coloring was found to be perceived as lower by Chinese Gen Y consumers than by US Gen Y consumers. Although in the qualitative interview stage, the Chinese Gen Y participants seemed to have a stronger preference for salon hair coloring than their

counterparts in the US, it appeared that their expressed feelings may not be due to their perception of a higher quality value for salon hair coloring than self-coloring at home, but rather the availability difference between the two methods in China. It may be, too, that Chinese Gen Y consumers' concerns about health issues have influenced their quality perceptions about salon hair coloring in general.

Contrary to the prediction in Hypothesis 4, the data indicated that the perceived social value of salon hair coloring was lower for Chinese Gen Y consumers than for US Gen Y consumers. Although previous research suggested that people in collectivist cultures are more concerned with other people's perceptions of them (i.e. social value) than individualistic cultures (Hofstede & Bond, 1984), it is possible that in China there may be a stronger orientation than the average towards individualism in the younger generation, especially when compared to an older generation that grew up under the Maoist regime. For example, in Trompenaars and Hampden-Turner's (1997) study only 30% of the Chinese respondents were identified as having an individualism orientation, while in Zhao's (2004) study more than 50% of the Chinese college student respondents were identified as having an individualism orientation. According to the accepted definitions of these terms, it is usually assumed that individualistic people prefer to be different from others and care relatively less about social standards and norms than those with a collectivistic orientation. Therefore, the study's results may indicate that Chinese Gen Ys exhibit a stronger orientation towards individualism than US Gen Ys in general or that they have a stronger

orientation towards individualism relative to the product category of interest in this study.

Hypothesis 5 was also not supported by the data, which means monetary costs appeared to be perceived as higher by Chinese Gen Y consumers than by US Gen Y consumers. Although previous research has found that Chinese consumers in general are more concerned with the availability and/or the quality of a product instead of the price (Fan & Xiao, 1998) and Chinese young consumers are less price-conscious and less coupon-prone than their US counterparts (Zhou & Nakamoto, 2001), several demographics factors, i.e., location and income, may have influenced the study outcomes. For example, consumers from the big cities in China are more affluent financially and may be less price-conscious than consumers from smaller cities. In this study, the participants in the Chinese sample came from a middle-sized city in China with an economic level that is not as high as some of China's larger cities. A lower income level due to geographic location may have led the Chinese respondents to be more sensitive about price than the respondents in the US sample. It may also be that the relative cost of salon hair coloring, when compared to income, is different for Chinese and US Gen Y consumers. Therefore, the Chinese sample in this study may have perceived a higher value level for monetary costs than its US counterpart. Too, the results may reflect values unique to this particular product category.

Finally, the fourth non-supported hypothesis from H1-H7, was Hypothesis 6. Contrary to the prediction, time/effort costs appeared to be perceived at the same level by both Chinese and US Gen Y consumers. Previous research has found that Chinese consumers in general appear to be less time and effort conscious than their US counterparts (Fan & Xiao, 1988; Li, Zhou, Nicholls, Zhuang, & Kranendonk, 2004). However, given that the samples in this study consisted of respondents from only one age group (18-28), it may be that young people of this age group in the two cultures actually do have the same perceptions for time/effort costs in general. Or, it may be that in this particular consumption scenario, i.e., salon hair coloring, that the two consumer groups have the same perceptions relative to the personal time and effort costs incurred.

#### *Understanding the Impact of the Individual Value Dimensions on CPV*

Another key purpose of this study was to determine which dimensions of perceived value most influenced Gen Y consumers' overall perceptions of value for salon hair coloring relative to what they gave versus what they received. Four hypotheses were proposed to explore the question of strength of influence, with three out of the four hypotheses proposed supported by the data. It should again be noted that the qualitative research phase of this study was very critical in developing predications for H8-H11, given that no relevant direction was provided by the extant research.

In order to explore the issue of the influence of the value dimensions, this study proposed a model which represented the trade-off between “benefits” and “sacrifices” for the CPV construct and applied this model to both Chinese Gen Y consumers and US Gen Y consumers, using SEM. Based on the SEM analysis results in this study, the model fit both samples fairly well—with only one path coefficient failing to support the predictions for each sample. The most noteworthy overall result, however, was the model’s ability to explain approximately 56% of the variance in CPV for the Chinese sample and approximately 41% of the variance in CPV for the US sample, a very significant finding for either survey or cross-cultural studies. The strength of the results implied that the proposed model could be adapted for future studies in the CPV area.

Although the proposed model fit both samples, the path diagrams of the model for the two samples looked different in an interesting way. On one hand, for the Chinese sample, six out of the seven dimensions of CPV seemed to have similar levels of influence on CPV given that their path coefficients were close to one another in absolute value (i.e. between 0.22 and 0.15), with the only exception being the path coefficient for health risk cost at 0.08. On the other hand, for the US sample, four out of the seven dimensions of CPV seemed to have similarly low levels of influence on CPV given that their path coefficients were between 0.04 and 0.08 in absolute value, while emotional value, epistemic value, and monetary cost seemed to have a much greater influence on CPV with path coefficients of 0.29, 0.14, and 0.43,

respectively. From a research perspective, this finding from the SEM results was very important in that no research comparing the relative impact between individual CPV dimensions has been available in the literature.

Another interesting finding from the path results of the model was the path coefficient for time/effort costs (TC) for the Chinese sample, which turned out to be positive instead of the predicted negative influence anticipated given its expected role as a “sacrifice” construct. One possible explanation for this discrepancy was that for the Chinese Gen Y consumers, the higher they thought the time/effort costs to be, the better service they thought they were getting, and possibly the higher value they perceived relative to salon hair coloring. As a result, the time/effort costs may have appeared to them to have a positive influence on CPV, which deserves further investigation in future research. By the same token, the path coefficient for the health risk costs (HC) for the US sample turned out to be positive, which contradicts the expected negative impact that a “sacrifice” construct should have on CPV. This result appears to be unfounded in logic and as such also deserves further investigation.

For the Chinese sample, the most influential CPV dimensions seemed to be quality value and monetary cost, while for the US sample, the most influential CPV dimensions appeared to be emotional value and monetary cost. These findings suggest that monetary cost turned out to be not only very important for US Gen Y consumers as predicted, but also for Chinese Gen Y consumers, at least in the specific geographic areas included in this study. For retailers targeting the Chinese Gen Y

consumers, marketing strategy may want to focus particularly on all quality value and monetary cost issues, but also pay reasonable attention to the other CPV dimensions simultaneously given that all the dimensions showed similar impact on CPV for the Chinese sample. On the other hand, for retailers targeting US Gen Y consumers, marketing strategy may want to emphasize the most important dimensions, monetary cost and emotional value, while being less concerned about the other value dimensions of CPV.

The study results suggest that marketers may want to rethink the communication channels appropriate for promoting salon hair coloring to Gen Y. According to Zhao (2004), 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.

### **Contributions**

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 results imply that retailers targeting these two consumer groups will be better off using different marketing strategies in order to capitalize on the two groups' different value perceptions of salon hair coloring.

### **Limitations**

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.

### **Future Research**

Given the early development of CPV research in general, many research opportunities exist to broaden and deepen our knowledge of CPV, as well as our knowledge of salon hair coloring. In order to evaluate the external validity of the proposed model of CPV relative to salon hair coloring, a broader sample (including more age groups) might be considered. Such investigation would demonstrate whether or not this CPV concept could be extended to other market segments. For example, previous research has shown that the major goals for coloring hair are different between younger consumers and older consumers, with the latter group intending to cover the gray. Therefore, it would be meaningful to see if the same model still applies to older consumers. In addition, it would be important to explore whether the proposed model could also be applied to other appearance-related and personal care product categories, because a large gap exists in that literature as well.

Future research might also include consumers from other countries in a cross-cultural comparison of CPV. For instance, another collectivistic country and another individualistic country could be added to this current study so that a further comparison could be made between the two types of cultures relative to CPV. Also, another developed nation and another developing nation could be added to this research stream so that a comparison could be made between different economic development levels relative to CPV.

As described in the conclusions for this study, data analysis from the SEM indicated two constructs that showed unexpected influence on CPV, one for each sample (TC in the Chinese sample and HC in the US sample). Given that these findings were against basic logic and not in accordance with previous research, these particular value dimensions should be investigated in future research, using different survey data—and, perhaps, with strong consideration of a measurement issue for the EPV scale. In fact, this study did not create any new scales for research purposes. Although most of the scales, with the exception of the EPV scale, turned out to have satisfactory reliability scores, it would still be helpful if future research considered further developing scales specifically for CPV, especially those that could be used cross-culturally.

This study has noted several times that the preliminary qualitative research (i.e. in-depth interviews) conducted was very useful in facilitating the understanding of consumer perceived value of salon hair coloring for different consumer groups.

Given that research on CPV and on personal care products is still relatively immature and because qualitative research answers questions that quantitative research in many instances cannot, further qualitative research should be strongly considered. For example, given the long distance to China, some qualitative research methods were not possible for this study, such as observations and focus groups, which could have provided additional important information. For instance, observational research in the salon may provide ideas that consumers would not want and/or be able to express in an interview. Therefore, it would be reasonable to include these research methods in future investigations.

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**APPENDIX A**  
**INTERVIEW SCHEDULE**

## Consumer Perceived Value

Research Questions	Interview Questions
What is the role of hair in a person's appearance?	<ul style="list-style-type: none"> <li>• What do you think are the most important attributes for a person's appearance?</li> <li>• How important do you think the look of hair is to a person's appearance?</li> <li>• How important are hair care activities in general for a person's appearance?</li> <li>• How important do you think the color of the hair is for a person's appearance?</li> <li>• How do hair care activities in general make you feel?</li> <li>• What benefits do hair care activities provide you (functional, social, emotional)?</li> </ul>
What motivates a change in hair looks?	<ul style="list-style-type: none"> <li>• Are there certain hair care activities you think about more often than others?</li> <li>• How have your hair needs/wants change over the past 10 years?</li> <li>• When was the last time that you changed the looks of your hair?</li> <li>• What kind of change was it?</li> <li>• When was the last time that you used hair colorants?</li> <li>• Why did you do it? Was it to restore your natural hair color or refresh an existing color or try out a completely new one?</li> <li>• How did you feel about the process?</li> <li>• How did you feel about the outcome?</li> <li>• What or who influences your attitude toward hair colorants?</li> <li>• What or who influences your consumption behavior of hair colorants?</li> </ul>
What do consumers perceive as value in hair colorants?	<ul style="list-style-type: none"> <li>• What meanings do you associate with different hair colors?</li> <li>• Does a particular color attract to you more than others?</li> <li>• What things (attributes, characteristics) do you look for in hair colorants?</li> <li>• How important are these attributes, characteristics to you? Why?</li> <li>• Are you seeking a very specific "look"?</li> <li>• What can't you find in the attributes/characteristics of hair colorants that you would like to see?</li> <li>• Describe an idealized hair colorant product.</li> </ul>
What are the hair colorants consumption experiences of consumers	<ul style="list-style-type: none"> <li>• Tell me about your consumption habits for hair colorants (Where? How often? For what reason? How much time is usually involved in the coloring process?)</li> <li>• Tell me about your experiences of using hair colorants (a specific time for using hair colorants—good or bad)?</li> <li>• Besides changing the hair to the color that you wanted, what other things were important to you in that consumption experience?</li> <li>• How did the process of hair coloring make you feel? How about the outcome?</li> <li>• What things please you or trouble you about your hair colorant consumption experiences?</li> <li>• When you shop/purchase hair colorants, how important is the store itself? Do you prefer going to a salon to try profession service first?</li> </ul>

## 消费者认知价值

研究问题	采访问题
头发在一个人的外貌中占有什么样的角色？	<p>你觉得哪些特征对一个人的外貌是最重要的？</p> <p>你觉得头发对一个人的外貌有多重要？</p> <p>护发对一个人的外貌有多重要？</p> <p>你觉得头发的颜色对一个人的外貌有多重要？</p> <p>一般来讲, 护发会让你有什么感觉？</p> <p>护发对你有什么好处（功能上，社会上，情感上）？</p>
什么动机会让人改变头发外观？	<p>是否有些护发活动，相对于其他的护发活动，你更经常想到呢？</p> <p>在过去的 10 年里，你对头发的要求是如何变化的？</p> <p>上次你改变头发的外观是什么时候？</p> <p>那是什么样的变化？</p> <p>上次你使用染发剂是什么时候？</p> <p>你为什么染发？是为了还原头发的原来颜色，还是为了强化已有颜色，还是为了尝试一种全新的颜色？</p> <p>对此过程你的感觉如何？</p> <p>你觉得结果怎样？</p> <p>什么因素或什么人会影响你对染发剂的态度？</p> <p>什么因素或什么会影响你的染发剂的消费行为？</p>
消费者认为的染发剂的价值是什么？	<p>你把不同的发色和什么含义相联系呢？</p> <p>是否某种头发的颜色比其他颜色更加吸引你呢？</p> <p>对于染发剂，你关心哪些东西（因素，特征）？</p> <p>这些因素或特征对你有多重要？为什么？</p> <p>你是否在追求某特定的”外观”？</p> <p>有哪些因素/特征是你想要看到，却未能在现有染发剂中找到呢？</p> <p>描述一种理想的染发剂产品。</p>
消费者的染发剂使用经历是什么？	<p>告诉我你的染发剂消费习惯（在哪里？多经常？为了什么目的？染发过程通常要多长时间？）</p> <p>告诉我你使用染发剂的经历（使用染发剂的一个实例 - 好或坏）？</p> <p>除了将头发染成你要的颜色之外，在这个消费经历中还有什么重要的？</p> <p>染发过程让你有什么感觉？结果怎样？</p> <p>在你的染发剂消费经历中，什么使你高兴或苦恼呢？</p> <p>在你购买染发剂时，店家本身有多重要？你是否更加喜欢先到一家美发店尝试一下专业服务呢？</p>

**APPENDIX B**  
**INTERVIEW ANALYSIS**

### *Chinese Gen Y Consumer Group*

Eight topical patterns initially emerged from the data analysis of the Chinese Gen Y informants' transcribed texts. The first one indicated that informants value hair coloring as an adornment, which they think can change a person's appearance, including lightening skin tone, looking fashionable, and making the individual look unique.

ABC: The color of the hair may be able to lighten up a person's skin tone...and sometimes if you color your hair, you will look unique.

DEF: Different hair colors could give people different looks, like black hair vs. blonde hair. Black hair makes you look very traditional Chinese, while blonde hair would make you look very fashionable...I think having some color makes my curly hair look better.

QRS: I think it (hair color) can adjust your appearance to some extent...I had it colored to something that's a little bit blonde. I think it brought me a totally new feeling, which made me look more fashionable.

TUV: I was suggested that hair coloring can be decoration to the whole image... I had the whole hair colored to brownish red, which lightened up my skin tone.

The second topic pattern indicated that the Chinese informants have a strong preference to have hair colored in the salon instead of doing it at home on their own, suggesting that they perceive a higher *quality* value in the salon hair coloring service, including the salon personnel managing highlights better, providing expert suggestions, avoiding damage to the hair, and avoiding the mess of doing it at home. In fact, only one of the eight informants had ever tried coloring her hair at home.

ABC: I think the hairdressers know how to do highlights and can give you suggestions. But you lack of this kind of knowledge.

HIJ: I have no knowledge about the hair colorants, but hairdressers, they are always doing it. They know the timing and everything. I've heard people doing it at home and did some damage to the hair. It would be troublesome if you damaged your hair.

KLM: In the salon, they do it layer by layer, and they watch the clock to heat it, very complicated. I don't think I can do it at home.

QRS: I still prefer going to salon to have it done. I think they do a better job in coloring and protecting the hair. If I do it at home, I'm afraid I'll make a mess because I have no idea about the coloring or about the harm.

The third topical pattern that emerged from the data indicated that informants value the good feelings they get when their hair is colored, which suggests *emotional* value, including feeling happy, feeling cool, and enjoying the compliments relative to the outcomes. One thing noticed was that most of the good feelings came from the results, not necessarily the hair coloring process.

ABC: What pleased me is that it gave me a change, and most people liked my change.

HIJ: After all, I got a completely new look, feeling refreshed... And it makes me feel happy. I guess you have to suffer somewhat to get pretty.

NOP: The results always please me. Getting a new image that fits me would make me feel cool.

QRS: What pleased me is the changes I've seen and the compliments I got.

The fourth topical patterns indicated that informants value trying new things and experiencing new looks, which suggests *epistemic* value in hair coloring, including seeking knowledge about colors and products and wanting something new and

exciting instead of old and boring. As argued in Sheth and colleagues (1991), exploratory, novelty seeking, and variety seeking motives can encourage consumers to search for and try product and services, and can even cause switching behaviors.

ABC: I started paying attention to the information on hair coloring, like if I see somebody have a pretty hair color, I would go and ask about it.

DEF: I had been wearing the long and straight hair for about three years, so I really wanted to try something different... I had never done it before, so I wanted to give it a try, just to see how it looks.

WXY: I felt that I had been wearing the same hairstyle and color for too long, people probably felt bored by that too. So I wanted to give it a change and have a new feeling about it. I just tried to see if it fits me.

The fifth topical pattern indicated that informants care about the impressions they make on other people and that they value different opinions, which suggests *social* value. Informants expressed wanting to please others, wanting to look good to others, and feeling hurt if others responded negatively to hair color changes.

Research in the area of opinion leadership has demonstrated that choices involving highly visible products, such as clothing and jewelry, in this case, hair coloring, are often driven by social value (Sheth et al, 1991).

ABC: Older people did not like me having the hair colored. I can't say that I don't mind at all because I would want everybody to like the change I made...If my students or their parents don't like it, I would not do it because I'm in this profession, I have to care.

KLM: I think their comments are very important because no matter what you do, you do it for others. You want to look good in others' eyes. If they don't think it's pretty, you need to change it.

QRS: But if somebody said the color doesn't look good on me, I would get a little bit upset.

WXY: Your own feeling is very important, but you're a member of society, so you have to care what impressions you are making on others.

The sixth topical pattern indicated that the informants cared very strongly about the potential *health risk* that is posed by hair coloring. Informants concerns included worry about skin cancer, brain cancer, and harm of various types to the hair. In fact, all eight informants pointed out that the health issue is their number one concern about hair coloring.

KLM: Better no harm because I've heard a lot about this kind of thing, such as it can cause brain cancer or skin cancer. And sometimes, after I have my hair colored, I would have a headache. I guess it's caused by the chemicals in the hair coloring. You can actually smell the chemicals, no matter which brand name. It's very strong. So I would like to have some purely natural ones, no harm at all.

NOP: I definitely want to make sure that it's not harmful to my hair. The other aspects are all secondary. I'm so scared about the cancer thing.

TUV: I care the most about whether it will damage my hair and my skin. I've heard from friends that hair colorings can cause skin cancer or something like that, which I'm worried about. Now I don't get it colored often anymore. I prefer having it highlighted a little bit, which I assume should not do too much harm.

WXY: It's said that hair coloring could affect your health, causing your hair to fall out, and things like that. If too many people are saying that, I probably would not do it anymore.

The seventh topical pattern that emerged from the data indicated that informants do think about the price they pay to get hair coloring service in a salon, which suggests *monetary cost* is a factor in their overall perception of value. In general, the

informants appeared to be satisfied with the cost of getting their hair colored in a salon. However, there seemed to be a difference in perspectives about the relationship between the monetary cost and the quality of service and/or product, i.e. positive vs. negative.

ABC: If you go to a higher class one, the product used there might not have so much damage. It's related to price.

DEF: The salon will recommend some so-called special shampoo to you so that they can make more money. They say that special shampoo can remove the chemical smell effectively.

KLM: I don't trust hairdressers' advice on that because they normally just recommend the most expensive ones to me.

TUV: I selected the one that is medium-priced. Of course, the higher-priced one, the better. But I have to base it on my budget.

The eighth topical pattern indicated that informants expressed concern for the *time/effort* they have to spend on getting hair coloring done in the salon. Their responses indicated concerns over getting tired, bored, impatient, or having to take time off from their pursuits. In addition, none of them expressed any obvious pleasure in the process.

HIJ: At first I was very excited, then after a while, I started to get tired because it's complicated and took a couple of hours.

KLM: It's too long and painful. Normally it takes 3 hours to finish all the steps, including perm, coloring, and conditioning. I always get impatient in the middle of it. I have to take a whole day off and plan for it in advance, it's not like a spontaneous thing to do.

NOP: When I had long hair, it could take 3 hours. If I went alone to have it done, it's kind of boring.

Further analysis of the eight initial topical patterns generated by the Chinese Gen Y data suggested that these eight patterns could be grouped into two major categories: (1) benefits, which included adornment function, quality value, emotional value, epistemic value, and social value; and (2) sacrifices, which included health risks, monetary costs, and time/effort costs.

### *US Gen Y Consumer Group*

Eight topical patterns also initially emerged from the data analysis of the US Gen Y informants. The first one indicated that informants think of hair coloring as an adornment, which they view as similar to a form of dress, for example, multiple informants described hair coloring as an accessory. In general, the US Gen Y group had more experiences with hair coloring than their counterparts in the Chinese Gen Y group. For some of them, hair coloring has become a routine thing to do.

CD: I think hair color can be an accessory. I think that it can also be fun, that it can be used for creativity, for self-expression.

IJ: See I have been dyeing my hair for so long, I just couldn't stop because it needs to grow out, which would be a really horrible transition. I don't really care so much about dyeing my hair anymore, it's just that I need to keep it going.

OP: I think color can also be used as an accessory. It contributes to the style. Or vice versa, the style contributes to the color. So a lot times, if you have a certain style, with adding some bright color to your hair, like red, would accentuate the style.

The second topical pattern that emerged from the data indicated that informants have a perception that *quality* hair coloring has a stronger association with salon service, expressed by comments about professionalism and expertise of the hair coloring process in salons, as well as difficulty of the process of bleaching the hair by themselves. Although about half of this group colored their hair at home, their preference was to have their hair colored in the salon. However, budget constraints often prevented a salon visit.

AB: It's nicer to go to a salon because they do it in a professional way that it won't stain your clothes or stain your hands, and it won't take forever to do it.

CD: If I'm getting highlights, I would let the salon do it because that experience I had with me and my sister doing it, it didn't turn out bad and it didn't damage my hair, but I couldn't see the back, I was feeling more like I wasn't the expert.

OP: I would still prefer going to a salon anyway because of the coloring process includes lightening it, there is no way around. You have to lighten your hair in order to put color on top of it in order for it to show up. So bleaching my own hair is just not going to happen.

The third topical pattern identified indicated that informants value the good feelings they get out of hair coloring, which suggests *emotional* value. While the hair color itself is important, most informants indicated that the good feelings they experienced had a lot to do with the overall process, including interaction with the salon personnel, time to relax, and being pampered.

EF: It's just like buying something new, something different, it just makes you feel better.

GH: I think it's relaxing, another part of it is having a stylist that you like. So you just go there and relax, and talk, and she just plays with your hair. It's just like a nice break out of the day, if you are just going, getting pampered for two hours, sometimes, it takes a longer time. I enjoyed the whole process...It makes me happy to look nice.

MN: And then at other times, I was at the salon, and it was relaxing, I feel like I'm being pampered. It makes you feel kind of special like if you were to go and get a massage. Kind of the same thing, you just relax, you don't need to worry about anything, you just sit there and chitchat gossip.

The fourth topical pattern that emerged indicated that informants value trying new things and experiencing new looks, which suggests *epistemic* value. A curiosity about hair coloring was described by the informants; however, this did not appear to be a strong issue with them. This may reflect where the informants were in the life cycle of hair coloring usage, given that many expressed having used hair coloring since they were in middle school and/or high school and may have already answered many of the questions on color and brand relative to the product category.

CD: I'm very fascinated with hair in general. I purchase magazines and look on websites, to find out about new products... So it's sort of like a surprise. "I'm trying something different, is it going to be darker, or lighter, is it going to work with my makeup, my skin tone"?

GH: I just got bored with my plain hair color, I just wanted to try something different.

OP: At this point of my life, I know what I'm going to get before I get it. I've learned, learned from bad experiences, bad hairstyles...Some of my old pictures, they look scary to me now. But back then, I thought I was cute and cool. Now that I look back on it, I just don't know what I was thinking.

The fifth topical pattern indicated that informants care about the impressions they make on other people and value different opinions, which suggests *social* value.

The informants pointed out that getting approval and compliments from certain people made them feel good about having their hair colored. Sometimes they suggested that others were the basic motivation for them to color their hair.

AB: A lot people know me kind of by my hair a little bit. And that's kind of nice like in big classes, teachers all remember me because my hair is just like that.

EF: I remember my mom used to like me as a blonde, she'll say, "keep your hair blonde because you look boring as a brown." So I would keep my hair blonde for a long time.

OP: I need to get the acceptance among my peer group, such as my friends.

The sixth topical pattern expressed by the informants indicated that they are aware of the *health risks* associated with hair coloring, but their comments suggested that they view these risks as very minor. Furthermore, the informants expressed the health risks in terms of what hair coloring products could do to damage their hair, rather than their bodies. Two informants indicated that they felt that hair coloring could actually improve the hair and make it stronger.

CD: I want something that is not going to harm my hair if I want to change it every three or four months. So I look for something that is gentle on my hair and something that is made for my hair type.

EF: I'm just so used to dyeing my hair, no allergy ever happened to me or any of my friends that I know of. I've never really concerned about the health issues.

KL: I guess dyeing it in a darker color can actually coat it, making it stronger and healthier. So I've never really had anyone that told me it's unhealthy. So it wasn't the most important thing to me.

OP: I never had allergy or heard about anyone have that. So I'm never concerned about if it's going to do damage to my skin or anything. I just trust the beautician,

and also the experience with the product. I just go based on that. She uses that same product on all her clients, and I've never heard anyone complain having break outs, or allergies to it, or anything like that.

The seventh topical pattern found indicated that informants care about the price they have to pay to get hair coloring service in a salon, which suggests *monetary cost* is a very important factor in their perception of the value they receive from salon hair coloring. In fact, all the informants pointed out that there is a significant difference between having hair coloring service in a salon and doing it at home in terms of monetary cost. Given that the informants were still attending school and were not affluent financially, they saw the monetary cost as the major problem to having hair coloring done in a professional salon.

AB: I would like them to be cheaper. They're very expensive. Even a partial highlight for my hair length which is medium, it's like 60 dollars. It's a lot. So I would like to see the price go down, but it's kind of wishful thinking.

IJ: If money was no object, I would be in the salon, getting the full treatment...I will do it, and it would be beautiful. It's still the money issue, it's ridiculously expensive.

KL: I would definitely prefer going to a salon if there is no money constraint.

MN: I have friends that color their hair every few months, I just, I can't afford it, that's the main problem.

OP: In college, money is tight, so you can't get your hair done every week.

The eighth topical pattern that emerged indicated that informants are aware of the *time/effort* they have to spend on getting hair coloring service in the salon. In fact, the informants appeared to very sensitive about the time/effort differences

involved in having hair coloring done in the salon versus doing it at home. However, if they choose to have their hair colored in a salon, they tended to be very willing to find ways to work it into their schedules.

AB: It took almost four hours for everything to be finished. I enjoyed the process only because the lady that did my hair, she is like close to my age, we just sort of hung out, and it was fun. I guess if it's somebody that I didn't like, if it's an older lady, I probably would be really bored. But she was a lot like me, so I like to talk to her.

GH: You definitely need to plan, fit it into your schedule because it's like close to two hours out of your schedule that you have to set up a time for.

MN: I didn't feel like it took extremely too long, it is a waiting process, you have to wait for it to be set, but I didn't think it took too too long.

Further analysis of the eight initial topical patterns that emerged from analysis of the US Gen Y consumer data suggested that these eight patterns could also be grouped into two major categories: (1) benefits, which included adornment function, quality value, emotional value, epistemic value, and social value; and (2) sacrifices, which included health risks, monetary costs, and time/effort costs.

**APPENDIX C**  
**SURVEY QUESTIONNAIRE**

**THE UNIVERSITY OF NORTH CAROLINA**  
**GREENSBORO**

Department of Consumer, Apparel, and Retail Studies

**Consumer Perceived Value**  
**Toward Hair Coloring**



Xin Zhao

Tel.: (336) 256-0293

E-mail: [x\\_zhao@uncg.edu](mailto:x_zhao@uncg.edu)

Dear Sir/Madam:

We are doing a comparative study on hair coloring consumption behavior between Chinese consumers and US consumers. We need your help by answering the following questions if you are interested in this topic. Please answer ALL the questions. Your cooperation is totally voluntary. The data collected will be kept confidential and used in research project only. Remember that your responses are anonymous—no name.

It will take you 10-15 minutes to finish the questionnaire.

You can call me at (336) 256-0293 or email me at [x.zhao@uncg.edu](mailto:x.zhao@uncg.edu) if later on you have any question about the study or the questionnaire. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482.

Returning the completed questionnaire constitutes your consent to participate the study.

**YOUR CONTRIBUTION TO THIS STUDY WILL BE HIGHLY APPRECIATED!**

Sincerely,

Xin Zhao (Cindy)  
Ph.D. student

210 Stone Building  
Department of Consumer, Apparel, and Retail Studies  
School of Environmental Sciences  
University of North Carolina, Greensboro

**A. We are interested in your opinions about hair coloring and would appreciate your responses to the following questions. Please be sincere in your responses, as there are no right or wrong answers. Your cooperation is very important to us, and we thank you in advance for your cooperation.**

Have you ever changed the color of your hair?

YES\_\_\_\_\_ NO\_\_\_\_\_

If **NO**, please briefly describe the reason behind it.

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If **YES**, please indicate which method of hair coloring you have used (mark all that apply).

Salon\_\_\_\_\_ At home, on your own\_\_\_\_\_

**B. Please indicate below the **BENEFITS** you believe consumers receive from *salon hair coloring* by responding to each of the questions on a scale of 1 to 7—with 1 being “strongly disagree” and 7 being “strongly agree.” Please circle only **one** answer for each question.**

	Strongly Disagree						Strongly Agree
1. Salon hair coloring provides outstanding quality.	1	2	3	4	5	6	7
2. Salon hair coloring is very reliable.	1	2	3	4	5	6	7
3. Salon hair coloring is very dependable.	1	2	3	4	5	6	7
4. Salon hair coloring is very consistent.	1	2	3	4	5	6	7
5. Salon hair coloring is a type of hair coloring that people can enjoy.	1	2	3	4	5	6	7
6. Salon hair coloring makes people want to use it.	1	2	3	4	5	6	7
7. Salon hair coloring is something that people can feel relaxed about having.	1	2	3	4	5	6	7
8. Salon hair coloring can make people feel good.	1	2	3	4	5	6	7
9. Salon hair coloring can give people pleasure.	1	2	3	4	5	6	7
10. People can use salon hair coloring to test new looks.	1	2	3	4	5	6	7
11. People can use salon hair coloring to experiment with new ways of doing their hair.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
12. People can use salon hair coloring to satisfy their curiosities.	1	2	3	4	5	6	7
13. Salon hair coloring can help people to feel acceptable.	1	2	3	4	5	6	7
14. Salon hair coloring can improve the way people are perceived.	1	2	3	4	5	6	7
15. Salon hair coloring can make a good impression on other people.	1	2	3	4	5	6	7
16. Salon hair coloring can give people social approval.	1	2	3	4	5	6	7

**C. Please indicate below the **SACRIFICES** that you believe consumers make in order to have *salon hair coloring* by responding to each of the questions on a scale of 1 to 7—with 1 being “strongly disagree” and 7 being “strongly agree.” Please circle only **one** answer for each question.**

17. Salon hair coloring could cause cancer.	1	2	3	4	5	6	7
18. Salon hair coloring could give people unhealthy hair.	1	2	3	4	5	6	7
19. Salon hair coloring could cause headaches.	1	2	3	4	5	6	7
20. Salon hair coloring could give people allergies.	1	2	3	4	5	6	7
21. Salon hair coloring could hurt people’s levels of physical fitness.	1	2	3	4	5	6	7
22. Salon hair coloring is reasonably priced.	1	2	3	4	5	6	7
23. Salon hair coloring offers value for the money.	1	2	3	4	5	6	7
24. Salon hair coloring can be economical.	1	2	3	4	5	6	7
25. Salon hair coloring is a good service for the price.	1	2	3	4	5	6	7
26. Salon hair coloring could waste a lot of time.	1	2	3	4	5	6	7
27. People could lose time by stopping to have salon hair coloring.	1	2	3	4	5	6	7
28. People could be late for an appointment because of salon hair coloring.	1	2	3	4	5	6	7
29. People could waste a large portion of the day by having salon hair coloring.	1	2	3	4	5	6	7
30. People might have to make a special trip to have salon hair coloring.	1	2	3	4	5	6	7

**D.** Please indicate below the **OVERALL VALUE** that you believe consumers perceive for *salon hair coloring* by responding to each of the questions on a scale of 1 to 7—with 1 being “strongly disagree” and 7 being “strongly agree.” Please circle only **one** answer for each question.

	Strongly Disagree						Strongly Agree
	1	2	3	4	5	6	7
31. Salon hair coloring provides people with particular privileges that could not be received elsewhere.	1	2	3	4	5	6	7
32. By continuing to have salon hair coloring, people receive certain benefits that otherwise they would not receive.	1	2	3	4	5	6	7
33. There are certain benefits people would not retain if they were to stop salon hair coloring.	1	2	3	4	5	6	7
34. People would lose preferential treatment if they switched to home coloring or stopped coloring their hair.	1	2	3	4	5	6	7
35. People have to give up a lot in order to receive salon hair coloring.	1	2	3	4	5	6	7
36. The overall costs that people incur to receive salon hair coloring are high.	1	2	3	4	5	6	7
37. In general, the sacrifices required to have salon hair coloring are high.	1	2	3	4	5	6	7
38. Compared with the price paid, salon hair coloring provides good service value.	1	2	3	4	5	6	7
39. Compared with the tangible and intangible costs incurred, having salon hair coloring is worthwhile.	1	2	3	4	5	6	7
40. People think they are getting good value for the money they spend on salon hair coloring.	1	2	3	4	5	6	7

**E. DEMOGRAPHICS**

The following questions are for analysis purposes only. All responses will be kept strictly confidential.

**Gender:** Male \_\_\_\_\_ Female \_\_\_\_\_

**Age:**

18 to 28 years \_\_\_\_\_

45 to 54 years \_\_\_\_\_

29 to 44 years \_\_\_\_\_

55 years and up \_\_\_\_\_

**Ethnicity:**

African American\_\_\_\_\_

Asian\_\_\_\_\_

Caucasian\_\_\_\_\_

Hispanic\_\_\_\_\_

Native American

(Indian/Alaskan)\_\_\_\_\_

Other (please  
specify)\_\_\_\_\_

**Education:**

High school\_\_\_\_\_

Some college\_\_\_\_\_

Graduate work\_\_\_\_\_

PhD \_\_\_\_\_

Technical degree\_\_\_\_\_

Four year college degree\_\_\_\_\_

Master\_\_\_\_\_

Other (please specify)\_\_\_\_\_

**Occupation:** \_\_\_\_\_

**Income:** Please provide one of the following:

**Annual Personal Income:** \_\_\_\_\_US\$

**Annual Household Income:** \_\_\_\_\_US\$

A. 我们在做一个有关中美消费者染发行为的比较研究, 希望了解您对于染发的一些看法并需要您帮助回答下列所有问题. 答案不存在对错之分, 只要求是您真实的想法. 您的参与对我们来说很重要, 十分感谢您和我们的合作.

请问您是否改变过头发的颜色(请在所选答案后的横线上打勾√)?

是\_\_\_\_\_ 否\_\_\_\_\_

如果回答“否”, 请您简单陈述一下原因.

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如果回答“是”, 请选择您曾用以下哪种方式染过头发(可以多选)

去理发店染\_\_\_\_\_ 自己在家里染\_\_\_\_\_

B. 下面这些问题是关于在理发店染发的益处, 请在每个说法后面的七个数字中选择一个数字来表示您对这个说法的同意程度 (请在相应数字上打勾√)

	完全 不同意	基本 不同意	有些 不同意	无 意见	有些 同意	基本 同意	完全 同意
1. 在理发店染发效果显著.	1	2	3	4	5	6	7
2. 在理发店染发信得过.	1	2	3	4	5	6	7
3. 在理发店染发很可靠.	1	2	3	4	5	6	7
4. 在理发店染发品质稳定.	1	2	3	4	5	6	7
5. 在理发店染发让人很享受.	1	2	3	4	5	6	7
6. 在理发店染发让人很期待.	1	2	3	4	5	6	7
7. 在理发店染发可以使人精神放松.	1	2	3	4	5	6	7
8. 在理发店染发可以让人感觉良好.	1	2	3	4	5	6	7
9. 在理发店染发可以给人带来快乐.	1	2	3	4	5	6	7
10. 在理发店染发可以尝试新的造型.	1	2	3	4	5	6	7
11. 在理发店染发可以尝试新的美发技术.	1	2	3	4	5	6	7

	完全 不同意	基本 不同意	有些 不同意	无 意见	有些 同意	基本 同意	完全 同意
12. 在理发店染发可以满足人的好奇心.	1	2	3	4	5	6	7
13. 在理发店染发后可以更好地被群体接受.	1	2	3	4	5	6	7
14. 在理发店染发后可以改善自己在别人心目中的形象.	1	2	3	4	5	6	7
15. 在理发店染发后可以给别人一个好印象.	1	2	3	4	5	6	7
16. 在理发店染发后可以带来社会认同感.	1	2	3	4	5	6	7

**C.** 下面这些问题是关于在**理发店**染发的坏处, 请在每个说法后面的七个数字中选择一个数字来表示您对这个说法的同意程度 (请在相应数字上打勾√)

17. 在理发店染发可能会致癌.	1	2	3	4	5	6	7
18. 在理发店染发可能会伤害头发.	1	2	3	4	5	6	7
19. 在理发店染发可能会带来头痛.	1	2	3	4	5	6	7
20. 在理发店染发可能会产生过敏现象.	1	2	3	4	5	6	7
21. 在理发店染发可能会伤害身体健康.	1	2	3	4	5	6	7
22. 在理发店染发价格是合理的.	1	2	3	4	5	6	7
23. 在理发店染发物有所值.	1	2	3	4	5	6	7
24. 在理发店染发可以省钱.	1	2	3	4	5	6	7
25. 在理发店染发通常是划算的.	1	2	3	4	5	6	7
26. 在理发店染发可能会浪费大量时间.	1	2	3	4	5	6	7
27. 染发要去一趟理发店会比较花时间.	1	2	3	4	5	6	7
28. 在理发店染发可能会耽误其他的事情.	1	2	3	4	5	6	7

	完全 不同意	基本 不同意	有些 不同意	无 意见	有些 同意	基本 同意	完全 同意
29. 在理发店染发可能会耗大半天时间.	1	2	3	4	5	6	7
30. 去理发店染发还必须要专门找时间跑一趟.	1	2	3	4	5	6	7

**D.** 下面这些问题是关于在理发店染发的总体价值, 请在每个说法后面的七个数字中选择一个数字来表示您对这个说法的同意程度 (请在相应数字上打勾√)

31. 在理发店染发的好处是其他地方所不能给的.	1	2	3	4	5	6	7
32. 一直在理发店染发的好处是很多的.	1	2	3	4	5	6	7
33. 如果不在理发店染发了, 那么有些好处就无法得到了.	1	2	3	4	5	6	7
34. 如果改为自己染发, 或着是不再染发了, 那么有些好处就没有了.	1	2	3	4	5	6	7
35. 要在理发店染发, 必须要付出很多.	1	2	3	4	5	6	7
36. 在理发店染发的总体支出是很高的.	1	2	3	4	5	6	7
37. 总的来说, 在理发店染发要做很大的牺牲.	1	2	3	4	5	6	7
38. 与所付的价钱相比, 在理发店染发可以得到很好的服务.	1	2	3	4	5	6	7
39. 与有形无形的支出相比, 在理发店染发是值得的.	1	2	3	4	5	6	7
40. 人们通常觉得花钱在理发店染发是值得的.	1	2	3	4	5	6	7

## E. 个人资料

下面这些有关于您本人的信息只会用于数据分析，我们绝对为您保密。

性别:                   男\_\_\_\_\_                   女\_\_\_\_\_

年龄:                   18 岁至 28 岁\_\_\_\_\_                   45 岁至 54 岁\_\_\_\_\_

                          29 岁至 44 岁\_\_\_\_\_                   55 岁以上\_\_\_\_\_

民族:                   汉族\_\_\_\_\_                   其他民族(请写明)\_\_\_\_\_

文化程度:                   初中\_\_\_\_\_                   高中\_\_\_\_\_

                          技校\_\_\_\_\_                   专科\_\_\_\_\_

                          大本\_\_\_\_\_                   硕士\_\_\_\_\_

                          博士\_\_\_\_\_                   其他(请写明)\_\_\_\_\_

职业: \_\_\_\_\_

收入: 请选择回答其中一个

个人年收入: \_\_\_\_\_(元)人民币

家庭年收入: \_\_\_\_\_(元)人民币

**APPENDIX D**

**SEM RESULTS FOR TESTING MEASUREMENT INVARIANCE**

## Assumption 1

Degrees of Freedom = 561

Minimum Fit Function Chi-Square = 1462.82 (P = 0.0)

Normal Theory Weighted Least Squares Chi-Square = 1159.17 (P = 0.0)

Estimated Non-centrality Parameter (NCP) = 598.17

90 Percent Confidence Interval for NCP = (504.49 ; 699.59)

Minimum Fit Function Value = 3.27

Population Discrepancy Function Value (F0) = 1.34

90 Percent Confidence Interval for F0 = (1.13 ; 1.57)

Root Mean Square Error of Approximation (RMSEA) = 0.069

90 Percent Confidence Interval for RMSEA = (0.063 ; 0.075)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Expected Cross-Validation Index (ECVI) = 5.10

90 Percent Confidence Interval for ECVI = (4.89 ; 5.33)

ECVI for Saturated Model = 2.51

ECVI for Independence Model = 47.45

Chi-Square for Independence Model with 1056 Degrees of Freedom = 21143.10

Independence AIC = 21275.10

Model AIC = 2281.17

Saturated AIC = 2244.00

Independence CAIC = 21612.17

Model CAIC = 5146.21

Saturated CAIC = 7974.08

Normed Fit Index (NFI) = 0.93

Non-Normed Fit Index (NNFI) = 0.92

Parsimony Normed Fit Index (PNFI) = 0.49

Comparative Fit Index (CFI) = 0.96

Incremental Fit Index (IFI) = 0.96

Relative Fit Index (RFI) = 0.87

Critical N (CN) = 197.13

Group Goodness of Fit Statistics

Contribution to Chi-Square = 891.53

Percentage Contribution to Chi-Square = 60.95

Root Mean Square Residual (RMR) = 0.26

Standardized RMR = 0.12

Goodness of Fit Index (GFI) = 0.82

## Assumption 2

Degrees of Freedom = 849  
Minimum Fit Function Chi-Square = 2103.69 (P = 0.0)  
Normal Theory Weighted Least Squares Chi-Square = 2079.70 (P = 0.0)  
Estimated Non-centrality Parameter (NCP) = 1230.70  
90 Percent Confidence Interval for NCP = (1100.65 ; 1368.41)

Minimum Fit Function Value = 4.71  
Population Discrepancy Function Value (F0) = 2.75  
90 Percent Confidence Interval for F0 = (2.46 ; 3.06)  
Root Mean Square Error of Approximation (RMSEA) = 0.081  
90 Percent Confidence Interval for RMSEA = (0.076 ; 0.085)  
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Expected Cross-Validation Index (ECVI) = 5.01  
90 Percent Confidence Interval for ECVI = (4.72 ; 5.32)  
ECVI for Saturated Model = 2.08  
ECVI for Independence Model = 38.51

Chi-Square for Independence Model with 870 Degrees of Freedom = 17151.93  
Independence AIC = 17271.93  
Model AIC = 2241.70  
Saturated AIC = 1860.00  
Independence CAIC = 17578.35  
Model CAIC = 2655.37  
Saturated CAIC = 6609.53

Normed Fit Index (NFI) = 0.88  
Non-Normed Fit Index (NNFI) = 0.92  
Parsimony Normed Fit Index (PNFI) = 0.86  
Comparative Fit Index (CFI) = 0.92  
Incremental Fit Index (IFI) = 0.92  
Relative Fit Index (RFI) = 0.87  
Critical N (CN) = 202.39

Group Goodness of Fit Statistics  
Contribution to Chi-Square = 1183.35  
Percentage Contribution to Chi-Square = 56.25  
Root Mean Square Residual (RMR) = 0.28  
Standardized RMR = 0.13  
Goodness of Fit Index (GFI) = 0.72

### Assumption 3

Degrees of Freedom = 819  
Minimum Fit Function Chi-Square = 1759.43 (P = 0.0)  
Normal Theory Weighted Least Squares Chi-Square = 1864.11 (P = 0.0)  
Estimated Non-centrality Parameter (NCP) = 1045.11  
90 Percent Confidence Interval for NCP = (923.45 ; 1174.46)

Minimum Fit Function Value = 3.94  
Population Discrepancy Function Value (F0) = 2.34  
90 Percent Confidence Interval for F0 = (2.07 ; 2.63)  
Root Mean Square Error of Approximation (RMSEA) = 0.076  
90 Percent Confidence Interval for RMSEA = (0.071 ; 0.080)  
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Expected Cross-Validation Index (ECVI) = 4.67  
90 Percent Confidence Interval for ECVI = (4.39 ; 4.96)  
ECVI for Saturated Model = 2.08  
ECVI for Independence Model = 38.51

Chi-Square for Independence Model with 870 Degrees of Freedom = 17151.93  
Independence AIC = 17271.93  
Model AIC = 2086.11  
Saturated AIC = 1860.00  
Independence CAIC = 17578.35  
Model CAIC = 2652.99  
Saturated CAIC = 6609.53

Normed Fit Index (NFI) = 0.90  
Non-Normed Fit Index (NNFI) = 0.94  
Parsimony Normed Fit Index (PNFI) = 0.84  
Comparative Fit Index (CFI) = 0.94  
Incremental Fit Index (IFI) = 0.94  
Relative Fit Index (RFI) = 0.89  
Critical N (CN) = 233.74

Group Goodness of Fit Statistics  
Contribution to Chi-Square = 964.39  
Percentage Contribution to Chi-Square = 54.81  
Root Mean Square Residual (RMR) = 0.28  
Standardized RMR = 0.13  
Goodness of Fit Index (GFI) = 0.74

#### Assumption 4

Degrees of Freedom = 6

Minimum Fit Function Chi-Square = 5.43 (P = 0.49)

Normal Theory Weighted Least Squares Chi-Square = 5.26 (P = 0.51)

Estimated Non-centrality Parameter (NCP) = 0.0

90 Percent Confidence Interval for NCP = (0.0 ; 8.76)

Minimum Fit Function Value = 0.012

Population Discrepancy Function Value (F0) = 0.0

90 Percent Confidence Interval for F0 = (0.0 ; 0.020)

Root Mean Square Error of Approximation (RMSEA) = 0.0

90 Percent Confidence Interval for RMSEA = (0.0 ; 0.081)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.78

Expected Cross-Validation Index (ECVI) = 0.040

90 Percent Confidence Interval for ECVI = (0.040 ; 0.060)

ECVI for Saturated Model = 0.027

ECVI for Independence Model = 1.16

Chi-Square for Independence Model with 6 Degrees of Freedom = 511.73

Independence AIC = 523.73

Model AIC = 17.26

Saturated AIC = 24.00

Independence CAIC = 554.38

Model CAIC = 47.91

Saturated CAIC = 85.28

Normed Fit Index (NFI) = 0.99

Non-Normed Fit Index (NNFI) = 1.00

Parsimony Normed Fit Index (PNFI) = 0.99

Comparative Fit Index (CFI) = 1.00

Incremental Fit Index (IFI) = 1.00

Relative Fit Index (RFI) = 0.99

Critical N (CN) = 1385.71

Group Goodness of Fit Statistics

Contribution to Chi-Square = 3.26

Percentage Contribution to Chi-Square = 60.03

Root Mean Square Residual (RMR) = 0.067

Standardized RMR = 0.033

Goodness of Fit Index (GFI) = 0.99