

## **A structural analysis of value orientations, price perception and ongoing search behaviour: a cross-cultural study of American and Korean consumers**

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### **Abstract:**

The direct impact of value orientations on price perceptions has not received extensive investigation in previous research. We examined the impact of materialism, individualism and collectivism on American and Korean consumers' perceptions of the positive and negative roles of price. We also examined the influence of price perceptions on consumers' ongoing search behaviour. Using a structural equation modelling technique, results indicated that these value orientations positively and negatively influenced perceptions of the positive and negative roles of price, which in turn influenced ongoing search behaviour. Implications and future research directions are delineated.

**Keywords:** collectivism | individualism | materialism | ongoing search behaviour | price perceptions

### **Article:**

## **Introduction**

Value orientations are the fundamental beliefs that individuals or cultural groups regard as guidelines to assist them in adapting to their social and physical environment (Kluchhohn, 1951). Individuals' value orientations tend to be culture-bound (de Mooij, 1998). For example, individuals living in Western countries (e.g. the US) tend to place a great deal of importance on the value of individualism, whereas the value of collectivism is highly regarded in Asian countries (e.g. Korea) (Triandis, 1989). Additionally, materialism is another important value that has traditionally separated Western and Eastern cultures. In the past, materialism was a common value mainly

among people in industrialized, capitalistic cultures (e.g. the US) (Fromm, 1976). However, due to market globalization and the increased interdependence of the world's economies, materialism has been widely adopted among Asians (e.g. Koreans) (Belk, 1988; Wong and Ahuvia, 1998).

While Asians have become more like Westerners with regards to the value of materialism, they have maintained their cultural distance from Westerners with respect to the values of collectivism and individualism. Thus, while the two cultures are becoming similar, members of the two cultures still tend to possess different combinations of values. These combinations of values influence their behaviour, including their consumption behaviour, because individuals use their values to determine and justify their choices (Smith and Schwartz, 1997).

Values appear to have an indirect, rather than a direct, impact on consumers' behaviour. Researchers (Shim and Eastlick, 1998) have found that a hierarchy exists among values, attitudes and behaviours such that values indirectly influence behaviours through attitudes. More specifically, values have an impact on consumers' attitudinal-based higher-order cognitions, and these cognitions give rise to particular choice criteria in the marketplace (Howard and Woodside, 1984; McFarlane and Boxall, 2003). One particular consumption-related attitude that may be affected by the values of materialism, individualism and collectivism is price perception. Thus, values, price perception and behaviours are considered as being 'cognitively interconnected in a hierarchical network such that they are psychologically consistent' (Munson, 1984, p. 16).

Research on price perception and its effect on consumption behaviour suggests that the concept of price possesses two distinct roles: positive, in which the price of an object serves as an indicator of prestige and quality, and negative, in which the price of an object can be viewed as a monetary sacrifice on the part of the consumer (Lichtenstein et al., 1993). This stream of research has demonstrated that a relationship exists between consumers' price-related attitudes and their purchase decisions. Little research, however, has been performed to determine the direct effect of values on the perceived roles of price, despite the fact that values have been shown to have an indirect impact on behaviour through attitudes.

While several researchers have examined different market outcomes related to perceived price (e.g. search behaviour and behavioural intention), this research has mainly focused on search related to specific consumption problems (Punj and Staelin, 1983). While this type of research has revealed insights regarding not only the relationship between price perception and search behaviour but also the relationship between search behaviour and behavioural intention, the results from these studies may have inaccurately portrayed the behavioural responses of all consumers because some search activity is recreational or occurs without consumption-need recognition (e.g. browsing) (Bloch et al., 1986). As this type of non-specific search may be a more accurate predictor of shopping preference than search related to a specific need (Bloch and Richins, 1983), it is important for researchers to investigate ongoing search, or search activity that occurs without a need to solve a recognized and immediate consumption problem (Bloch et al., 1986).

The objectives of this research were (1) to empirically examine the overall multistep causal decision-making process involving values-price perception-ongoing search behaviour; and (2) to delineate the specific direct and indirect relationships that exist between each construct. We have no intention of arguing that the proposed model is the best one to predict consumers' ongoing search behaviour. Instead, our purpose is to demonstrate the impact of value orientations (i.e. materialism, individualism, collectivism) on higher-order cognitions (i.e. price perceptions) and subsequent consumption-related behaviours (i.e. ongoing search) within the context of apparel shopping (Rokeach, 1973). This assertion is based on the premise that value orientations are

fundamental sources of a most-to-least abstract hierarchical flow from cognition to behaviour (Homer and Kahle, 1988; McFarlane and Boxall, 2003).

Assuming that the proposed model is valid, the second objective of this study is to delineate specific relationships among constructs specified in the model. We argue that this approach is appropriate because individuals tend to display different degrees of various values (Rokeach, 1973), and these differences are likely to reflect on how they perceive price cues, which in turn affect their search behaviour (Zhou and Nakamoto, 2001).

## **Theoretical framework**

### **Materialism as a value**

Materialism refers to the importance that one attaches to the acquisition and possession of material objects (Richins and Dawson, 1992). In Richins and Dawson's (1992) view, materialism is seen as a value consisting of three domains: acquisition centrality, the role of acquisition as the pursuit of happiness and the role of possessions in defining success. Acquisition centrality refers to the importance that individuals place on acquiring and possessing things that they consider meaningful in their lives. Acquisition as the pursuit of happiness refers to the belief that acquiring or owning the right possessions will result in well-being and, consequently, happiness. Finally, the role of possessions in defining success refers to the degree to which individuals evaluate success based on the things they own. Thus, according to Richins and Dawson (1992), materialistic individuals tend to focus on acquisition and possession of material assets in order to increase their happiness and success.

### **Individualism and collectivism**

Individualism and collectivism have been used extensively among researchers in various disciplines (e.g. anthropology, sociology, psychology) to explain and predict cultural similarities and differences in social behaviour (Hofstede, 1980; Triandis, 1994). Individualism is established strongly in many Western countries, such as the US, and this is a trait that differentiates Western countries from the Eastern world, where collectivism is favoured. In fact, individualism is such a defining trait in the US that it is considered to be 'the mater key to American character' (Hsu, 1981, p. xiv). Individualists are motivated by their own preferences, needs and rights and are likely to give priority to their personal goals while emphasizing a rational analysis of their relationships with others. Thus, they focus on seeking variety and personal pleasure as societal norms (Hofstede, 1991). Collectivism, on the other hand, has been found in Asian cultures (e.g. Korea, Thailand) where a strong emphasis is placed on a group or social orientation (Hofstede, 1991). Among collectivists, relationships with others play an important role, and social behaviour is mainly determined by duty and obligations (Triandis, 1995).

### **Consumer price perceptions**

In a traditional view of price perception, Lichtenstein et al. (1993) proposed that price performs two broad roles, positive and negative. Depending upon the role used to evaluate the price of a particular product, the likelihood of purchasing that product may either increase or decrease. For instance, an individual who values prestige and believes that the product's price is reasonable in

terms of its ability to provide some increased level of prestige to the owner would have a favourable attitude towards the product's price. On the other hand, an individual who appreciates quality and value may have an unfavourable attitude towards the exact same product's price if the individual believes that the price to be paid for the product exceeds the amount of benefit he or she will receive in return.

Lichtenstein et al. (1993) further examined the positive and negative roles of price and reported seven psychological constructs of price perception: prestige sensitivity, price-quality schema, value consciousness, price consciousness, coupon proneness, sale proneness and price mavenism. Prestige sensitivity applies to situations in which purchasers are willing to pay higher prices because they believe higher prices to be associated with feelings of prominence and status. Value consciousness refers to the ratio of the quality received to the price paid in a purchase situation. Coupon/sale proneness represents a consumer's propensity to purchase a product when the coupon price or sale price being offered positively affects their purchase evaluation. Two of these seven constructs, prestige sensitivity and price-quality schema, are believed to represent the positive role of price, whereas the other five constructs are believed to represent the negative role of price.

### **Ongoing search behaviour**

Ongoing search activity is viewed as a part of the external information search activity. Bloch et al. (1986, p. 119) propose that 'an orientation focusing solely on prepurchase search is deficient and unable to account for search activity that is recreational or that occurs without a recognized consumption need.' Researchers have long recognized this specific type of search activity. For example, Tauber (1972) states that consumers shop not only for product acquisition but also to satisfy psychological needs. Such motivations were classified into two main categories: personal (e.g. role-playing, self-gratification, learning about new trends) and social (e.g. social experience, communication with others, the pleasure of bargaining). Bellenger and Korgaonkar (1980) reported that many consumers enjoy the act of shopping itself without making any purchase. Thus, ongoing search activity is defined as 'search activities that are independent of specific purchase needs or decisions' (Bloch et al., 1986, p. 120). Activities classified as ongoing search activities include browsing, window shopping, reading a fashion magazine to see new trends or styles, discussing new trends of fashion with friends, and/or talking to a salesperson at a store to get information about products.

Over the decades, the face of retailing around the globe has changed, gradually evolving from stores along a town's main street, to enclosed shopping centres, and, more recently, to mega-mall complexes that provide shopping and entertainment (Haytko and Baker, 2004). Not surprisingly, retail shopping centres have played a critical role in contributing to consumer experience, offering an environment that attracts customers and encourages repeat patronization in the future (Kowinski, 1985). Haytko and Baker (2004) report that young consumers tend to visit malls because of hedonic and utilitarian motivations. That is, these young consumers patronize shopping malls not only to accomplish their shopping task and gain knowledge about products, but also to obtain a feeling of freedom and indulge in the fantasy surrounding patronizing shopping malls.

## Hypotheses

Dickson and Sawyer (1990, p. 51) note that ‘shoppers are very heterogeneous in terms of their attention and reaction to price and price promotion.’ Differences in terms of consumers’ price perceptions may be attributable to differences in their value orientations. For example, highly materialistic individuals tend to value expensive objects that convey prestige and enhance the owner’s appearance and social status (Fournier and Richins, 1991; Richins, 1994). Thus, highly materialistic individuals may react favourably to high prices because they see these prices as indicators of the products’ ability to provide them with much-desired social status. In this case, materialistic individuals would be reacting favourably to the positive role of price.

In addition to using the positive role of price as a basis for their price perceptions, highly materialistic individuals may also react favourably to price in its negative role. According to transaction utility theory (Thaler, 1985), individuals shop to receive not only pleasure from purchasing and consuming products (acquisition utility), but also to receive value for the money spent (transaction utility). Thus, highly materialistic individuals may not only value price as a sign of prestige, but also as an indication of quality relative to monetary source invested. Furthermore, highly materialistic individuals are not precluded from purchasing products on promotion. In fact, sale prices may represent the ability to buy even more products than could have been afforded at original prices, which translates into ownership of a greater number of material possessions. Thus,

H1: Materialism will positively influence consumers’ favourable perceptions towards the (1) positive; and (2) negative roles of price.

Individualism represents an emotional detachment from groups, wherein individual, personal goals, as opposed to group goals, are emphasized. Individualists value competition and individual achievement. Wong (1997) argued that such values are similar to the objectives of those who emphasize conspicuous consumption as an indicator of achievement and success. Thus, it is expected that individualists are likely to perceive price favourably when they base their price perception decisions on the positive role of price related to its prestige.

While Americans tend to be individualistic, they also tend to be rational (Schwartz, 1992). Transaction utility theory explains that individuals are likely to value the merit of a deal relative to the investment of monetary resources (Thaler, 1985). Furthermore, from a business standpoint, many marketers and retailers (e.g. Wal-Mart) place heavy emphasis on advertising everyday low prices as well as special sale events, creating a society of value-conscious consumers. Additionally, recent economic developments, such as corporate downsizing and massive layoffs, may have turned American consumers into value-conscious consumers who are willing to pay considerable attention to price promotions (Rice, 1992). Thus,

H2: Individualism will positively influence consumers’ favourable perceptions towards the (1) positive; and (2) negative roles of price.

In contrast, Hofstede (1980) defined collectivism as emotional interdependence with groups, organizations and other collectivities. According to Triandis (1995), collectivists value harmony, interdependence, and are concerned with others. Rather than standing apart, collectivists prefer to engage in activities designed to maintain social-group esteem (Hofstede, 1980). As a result, it seems unlikely that collectivists would react favourably to prices that were signals of individual

prestige or social position (i.e. the positive role of price) because purchasing and using such products could potentially separate them from their social group.

On the other hand, it seems more likely that Asians would react favourably to the negative role of price. Many Asian countries have not yet fully recovered from the economic downturn of the mid-1990s. South Korea's economy, for instance, has been moving at a slow pace and remaining lackluster (Min, 2003). As consumer sentiment remains fragile, gross domestic product and personal consumption in Korean are expected to decelerate in the next few years (Min, 2003). Thus, it is logical to assume that these collectivist consumers would tend to place a strong emphasis on the value consciousness of price cues. Hence, it is expected that:

H3: Collectivism will (1) negatively influence consumers' favourable perceptions towards the positive; and (2) positively influence their favourable perceptions towards the negative roles of price.

Ongoing search is conceptualized as search activities 'that are independent of specific purchase needs or decisions' (Bloch et al., 1986, p. 120). That is, ongoing search is not a matter of solving a recognized and immediate purchase need, but instead is a specific activity that may occur to satisfy an individual's interest in products in general. This search activity may also occur to fulfil an individual's social needs. Some individuals may find that being knowledgeable about merchandise, particularly designer merchandise, increases their ability to purchase the products needed to increase their status or prominence in certain social circles. Hence,

H4: Consumers' favourable perceptions towards the positive role of price will positively influence their ongoing search activities.

Lichtenstein et al. (1993) examined low price searching as an activity that occurs prior to shopping and reported that value consciousness and price consciousness, constructs associated with the negative role of price, had an impact on low price search activities. Such activities are considered prepurchase searching, where one seeks information and processes activities in order to facilitate decision making (Kelly, 1968). However, this type of activity differs from ongoing searching in that ongoing search activities occur on a regular basis and do not involve a specific purchase objective (Bloch et al., 1986). Bloch et al. (1986) noted that the purpose of ongoing searching is to immerse the consumer in the product and market environment, which may lead to increased product and market knowledge that can be further used to increase shopping efficiency. Hence, it can be expected that consumers who perceive price favourably based on the negative role of price (e.g. value consciousness, sale proneness) are likely to conduct ongoing searches in order to increase their product and market knowledge to use in future shopping activities. Therefore,

H5: Consumers' favourable perceptions towards the negative role of price will positively influence their ongoing search activities.

## **Method**

### **Sample and procedure**

Prior to the data collection, a native Korean professor who is fluent in both English and Korean translated the questionnaire into Korean. Questionnaires were then distributed to a convenience sample of undergraduate students at a university in the US and a university in Korea during two consecutive semesters. Due to the exploratory nature of this study, student samples were deemed appropriate because they provided a homogenous sample (i.e. less noise or extraneous variation), desirable for theory testing (Calder et al., 1981). In addition, we chose college students because we could obtain a relatively closely matched sample in both countries (Parameswaran and Yaprak, 1987). Although this sampling frame cannot be viewed as a national representation, it does maximize the equivalence of sampling groups (Osgood et al., 1975). Each student received extra course credit for participating in the study. Apparel was the focus of this study because it is a product with which students would have experience that can be associated with both status and value (Richins, 1994).

### **Questionnaire and measures**

The questionnaire contained five major sections concerning materialism, individualism and collectivism, price perception and ongoing search behaviour respectively. Materialism was measured with an 18-item scale adopted from Richins and Dawson (1992). A 14-item scale capturing both individualism and collectivism was adapted from Individualism-Collectivism (INDCOL) (Hui, 1988; Hofstede, 1991). Items for measuring price perception were adapted from Lichtenstein et al.'s (1993) scale consisting of 42 items. Items capturing materialism, individualism, and price perception were measured on a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree).

Ongoing search behaviour was measured via four items from Bloch et al. (1986). Items assessing ongoing search behaviour were measured on a seven-point Likert scale (1 = very infrequently to 7 = very frequently). Finally, demographic information was assessed through categorical items.

## **Results**

### **Participant characteristics**

Table 1 shows participants' characteristics for each of the individual samples and for the combined sample. For the US sample, 246 questionnaires were given to students. Those who indicated that they were Asian and Mexican were eliminated, leaving 230 (93.5%) usable questionnaires. Among the participants in the final sample, 28% were male and 71% were female. A total of 80% were Caucasian and the majority (62%) were aged between 21 and 23 years; 56% percent were seniors and 32% were juniors. Based on annual household income, 57% came from upper-class families (more than \$80 000 annually).

**Table 1.** Participants' characteristics

Characteristics	Total	US	Korea
<b>Number of participants</b>	<b>499</b>	<b>230</b>	<b>269</b>
<b>Gender</b>			
Male	127 (25%) <sup>a</sup>	64 (28%)	63 (24%)
Female	366 (73%)	163 (71%)	203 (76%)
<b>Age (years)</b>			
18 – 20	98 (20%)	56 (24%)	42 (16%)
21 – 23	292 (59%)	143 (62%)	149 (56%)
24 – 26	88 (18%)	23 (10%)	66 (25%)
≥ 27	18 (3%)	8 (3%)	10 (4%)
<b>Year at school</b>			
Freshman	58 (12%)	8 (3%)	50 (19%)
Sophomore	107 (22%)	14 (6%)	93 (35%)
Junior	134 (27%)	74 (32%)	60 (23%)
Senior	192 (38%)	128 (56%)	64 (24%)
<b>Household income (\$)</b>			
< 10 000	56 (11%)	22 (9%)	34 (12%) <sup>b</sup>
10 000 – 23 999	48 (9%)	13 (6%)	35 (13%)
24 000 – 39 999	146 (29%)	33 (14%)	113 (42%)
40 000 – 59 999	50 (10%)	16 (7%)	34 (13%)
60 000 – 79 999	40 (8%)	10 (4%)	30 (11%)
> 80 000	148 (30%)	127 (57%)	21 (9%)
<b>Ethnicity</b>			
Caucasian	N/A	184 (80%)	N/A
African-American	N/A	8 (3%)	N/A
Hispanic-American	N/A	23 (10%)	N/A
Asian-American	N/A	14 (6%)	N/A

a Percentages may not equal 100% due to participant non-response on demographic items.

b Expressed in US\$ equivalent.

N/A, Not Applicable.

For the Korean sample, 276 questionnaires were given to students which 269 (97.5%) questionnaires were considered usable. Of the total 24% were male and 76% were female. Similar to the US sample, the majority of Korean participants (56%) were aged between 21 and 23 years. Year in school distribution was proportionate (approximately 25% in each). In contrast with the US sample, Korean participants came from middle-class families (approximately 35 000 US dollars/40 950 000 won annually).

The final sample consisted of 499 usable questionnaires (95.6%). Of these, 269 (54%) were Koreans and 230 (45%) were Americans. A total of 127 (26%) were male and 366 (74%) were female. Almost 60% (n = 292) were between the ages of 21–23 years, 20% (n = 98) were between ages of 18–20 years, and 18% (n = 88) were between the ages of 24–26 years. Relating to annual household incomes, 29% (n = 146) and 30% (n = 148) were considered to be middle- and upper-class respectively. Approximately 38% (n = 192) indicated their year at school as seniors; 27% were juniors, 22% were sophomores and 12% were freshmen.



## Exploratory factor analysis

To establish the hierarchical flow from cognition to behaviour using samples from two cultures, the US and Korea, responses from both samples were pooled for the remainder of the analysis. A principal components factor analysis using varimax rotation was executed on each multiple-item scale. Items with factor loadings of 0.40 or more on only one factor were retained. For materialism, the combined sample revealed five underlying factors with an eigenvalue of one or higher that explained 54.01% of the total variance. The first factor ( $\alpha = 0.76$ ) consisted of six items with the highest eigenvalue (3.97) and the most variance explained (22.02%). The second factor ( $\alpha = 0.71$ ) consisted of four items with an eigenvalue of 2.13 and variance explained of 11.82%. The third factor ( $\alpha = 0.63$ ) consisted of three items with an eigenvalue of 1.39 and variance explained of 7.72%. The fourth factors ( $\alpha = 0.66$ ) consisted of three items with an eigenvalue of 1.23 and variance explained of 6.84%. Lastly, the fifth factor ( $\alpha = 0.52$ ) consisted of two items with an eigenvalue of 1.01 and variance explained of 5.62%. Of the five factors, the first six-item factor obtained was used in the final analysis for assessing materialism because it captured the highest eigenvalue and has the most variance explained. In addition, a six-item factor obtained from the combined sample captured the three domains (i.e. success, happiness and centrality) of materialism as found in Richins and Dawson's (1992) study.

For individualism and collectivism, the combined sample yields four factors, after deleting two items due to low factor loadings (i.e. 'If a relative were in financial difficulty, I would help within my means' and 'It does not matter to me how my country is viewed in the eyes of other nations'), with an eigenvalue of one or higher that explained 58.17% of the total variance. The first factor ( $\alpha = 0.71$ ) consisted of four items with an eigenvalue of 2.63 and variance extracted of 21.92%. The second factor ( $\alpha = 0.67$ ) consisted of three items with an eigenvalue of 1.81 and variance explained of 15.08%. The third factor ( $\alpha = 0.53$ ) consisted of three items with an eigenvalue of 1.47 and variance explained of 12.25%. Lastly, the fourth factor ( $\alpha = 0.42$ ) consisted of two items with an eigenvalue of 1.07 and variance explained of 8.92%. While the four-item first factor captured collectivism, the three-item second factor captured individualism. Thus, these first two factors were used in the final analysis

For price perception, the combined sample yielded eight factors with an eigenvalue an eigenvalue of one or higher that explained 65.10% of the total variance. The first factor ( $\alpha = 0.88$ ) consisted of nine items with an eigenvalue 9.07 and variance explained of 21.59%. The second factor of ( $\alpha = 0.87$ ) consisted of eight items with an eigenvalue of 6.62 and variance extracted of 15.76%. The third factor ( $\alpha = 0.89$ ) consisted of six items with an eigenvalue of 3.12 and variance explained of 7.43%. The fourth factor ( $\alpha = 0.81$ ) consisted of four items with an eigenvalue of 2.33 and variance extracted of 5.55%. The fifth factor ( $\alpha = 0.84$ ) consisted of five factors with an eigenvalue of 2.17 and variance extracted of 5.17%. The six factor ( $\alpha = 0.77$ ) consisted of four items with an eigenvalue of 1.53 and variance explained of 3.64%. The seven factor ( $\alpha = 0.80$ ) consisted of four items with an eigenvalue of 1.41 and variance extracted of 3.36%. Lastly, the eight factor ( $\alpha = 0.73$ ) consisted of two items with an eigenvalue of 1.09 and variance explained of 2.60%. The first 9-item and the second 8-item factors were selected for the subsequent analysis because they yielded the highest eigenvalues (9.07 and 6.62 respectively) and proportion of variance extracted (21.59% and 15.75% respectively). In addition, the first factor captured the prestige sensitivity construct of price perception, representing the positive role of price. Similarly, the second factor captured the value consciousness construct of price perception, representing the negative role of price. In addition, these two factors (i.e. prestige

sensitivity and value consciousness) are similar to previous studies in terms of the numbers of items located in each construct (Lichtenstein et al., 1993).

## Descriptive statistics

Table 2 shows the descriptive statistics and the correlation matrix for the six constructs. The means of all constructs were close to or above 4.0, except the individualism ( $M_{\text{Individualism}} = 3.63$ ) and prestige sensitivity ( $M_{\text{Prestige sensitivity}} = 3.54$ ) constructs, whose means were lower than 4.00. The standard deviation ranged from 0.99 ( $M_{\text{Collectivism}} = 5.31$ ) to 1.24 ( $M_{\text{Ongoing Search}} = 4.02$ ), indicating substantial variances in the responses. The values of the correlations ranged from  $-0.05$  to 0.55.

**Table 2.** Means, standard deviations and correlation matrix: American and Korean consumers

Model variables	Mean	SD	Correlations						
			1	2	3	4	5	6	
Materialism	4.50	1.04	1.00						
Individualism	3.63	1.19	-0.10 <sup>a</sup>	1.00					
Collectivism	5.31	0.99	0.31 <sup>e</sup>	-0.25 <sup>e</sup>	1.00				
Negative role of price: value consciousness	4.93	1.16	0.23 <sup>e</sup>	-0.19 <sup>e</sup>	0.44 <sup>e</sup>	1.00			
Positive role of price: prestige sensitivity	3.54	1.22	0.55 <sup>e</sup>	0.10 <sup>b</sup>	-0.05	0.03	1.00		
Ongoing search behaviour	4.02	1.24	0.31 <sup>e</sup>	-0.05	0.19 <sup>e</sup>	0.48 <sup>e</sup>	0.39 <sup>e</sup>	1.00	

a Correlation is significant at the 0.05 level.

b Correlation is significant at the 0.01 level.

c Correlation is significant at the 0.001 level.

We also conducted a series of *t*-tests to ensure that there were differences between the US and the Korean samples related to individualism and collectivism. As expected, results revealed that the US group ( $M_{\text{US}} = 4.15$ ,  $SD = 1.10$ ) had a higher individualistic score than the Korean sample ( $M_{\text{Korean}} = 3.19$ ,  $SD = 1.08$ ,  $t = 9.77$ ,  $P < 0.001$ ). In a similar fashion, the Korean group ( $M_{\text{Korean}} = 5.55$ ,  $SD = 0.97$ ) had a higher collectivistic score than the US group ( $M_{\text{US}} = 5.02$ ,  $SD = 0.93$ ),  $t = -6.18$ ,  $P < 0.001$ ). Thus, differences between the Americans and Koreans on the dependent measure can be attributed to the cultural values of individualism and collectivism.

## Measurement model

The two-step approach recommended by Anderson and Gerbing (1984) was followed. Using the two-step approach, the confusion in interpreting results from a one-step approach can be avoided. A confirmatory factor analysis (CFA) was performed to estimate a measurement model using maximum likelihood in *lisrel 8.3*. The CFA model consisted of six 33-item constructs. Bagozzi and Yi (1988) also suggested that composite reliability should be equal to or exceed 0.60. All scales met this criterion. In addition, the standardized loadings, item reliabilities and composite reliability for the items and scales used to measure the latent variables are provided (see Table 3).

**Table 3.** Measurement model results

Construct/indicators	Standardized factor loading	SE	T-value	Construct reliability <sup>b</sup>	Proportion (%) of variance extracted <sup>c</sup>
<b>ξ<sub>1</sub> (Materialism)</b>				0.77	35.54
X <sub>1</sub> (Some of the most important achievements in life include acquiring material possession).	0.60 <sup>a</sup>	–	–		
X <sub>2</sub> (My life would be better if I owned certain things that I do not have)	0.62	0.110	9.41 <sup>***</sup>		
X <sub>3</sub> (Buying things gives me a lot of pleasure)	0.52	0.100	8.44 <sup>***</sup>		
X <sub>4</sub> (I like a lot of luxury in my life)	0.55	0.100	9.06 <sup>***</sup>		
X <sub>5</sub> (I'd would be if I could afford to buy more things)	0.74	0.110	10.50 <sup>***</sup>		
X <sub>6</sub> (It sometimes bothers me quite a bit that I can't afford to buy all things I'd like)	0.57	0.100	9.49 <sup>***</sup>		
<b>ξ<sub>2</sub> (Individualism)</b>				0.72	49.08
X <sub>7</sub> (When face with a difficult personal problem, it is better to decide what to do yourself, rather than follow the advice from others)	0.35 <sup>a</sup>	–	–		
X <sub>8</sub> (I would rather struggle through a personal problem by myself, than discuss it with my friends)	0.87	1.100	2.25 <sup>*</sup>		
X <sub>9</sub> (The most important thing in my life is to make myself happy)	0.77	0.940	2.25 <sup>*</sup>		
<b>ξ<sub>3</sub> (Collectivism)</b>				0.70	36.97
X <sub>10</sub> (I like to live close to my good friends)	0.54 <sup>a</sup>	–	–		
X <sub>11</sub> (One of the pleasures of life is to be related interdependently to others)	0.66	0.140	8.31 <sup>***</sup>		
X <sub>12</sub> (What I look for in a job is a friendly group of co-workers)	0.67	0.120	10.17 <sup>***</sup>		
X <sub>13</sub> (One of the pleasures of life is to feel like being part of a large group of people)	0.55	0.130	7.81 <sup>***</sup>		
<b>η<sub>1</sub> (Positive role of price: prestige sensitivity)</b>				0.89	47.00
γ <sub>1</sub> (Buying the most expensive brand of a product makes me feel classy)	0.75 <sup>a</sup>	–	–		
γ <sub>2</sub> (I enjoy the prestige of buying a high priced brand)	0.77	0.052	20.07 <sup>***</sup>		
γ <sub>3</sub> (It says something to people when you buy a high priced version)	0.69	0.071	13.29 <sup>***</sup>		
γ <sub>4</sub> (Your friends will think you are cheap if you consistently buy the lowest priced version)	0.53	0.072	9.98 <sup>***</sup>		
γ <sub>5</sub> (I have purchased the most expensive brand just because I knew other people would notice)	0.68	0.073	12.54 <sup>***</sup>		
γ <sub>6</sub> (I think others make judgements about me by the style and brands I buy)	0.72	0.073	13.48 <sup>***</sup>		
γ <sub>7</sub> (People notice when I buy the most expensive brand of an apparel product)	0.68	0.072	12.50 <sup>***</sup>		
γ <sub>8</sub> (Buying a high priced brand makes me feel good about myself)	0.69	0.067	12.64 <sup>***</sup>		
γ <sub>9</sub> (Even for a relatively inexpensive product, I think that buying a costly brand is impressive)	0.63	0.069	12.47 <sup>***</sup>		

**Table 3. (continued)**

Construct/indicators	Standardized factor loading	SE	T-value	Construct reliability <sup>b</sup>	Proportion (%) of variance extracted <sup>c</sup>
<b><math>\eta_2</math> (Negative role of price: value consciousness)</b>				0.84	43.78
$\gamma_{10}$ (I am very concerned about low prices, but I am equally concerned with quality)	0.77 <sup>a</sup>	–	–		
$\gamma_{11}$ (I generally compare the prices of different brands to be sure that I get the best value for the money)	0.53	0.060	18.02***		
$\gamma_{12}$ (When purchasing an apparel product, I always try to maximize the quality I get for the money I spend)	0.54	0.063	11.19***		
$\gamma_{13}$ (When I buy apparel products, I like to be sure that I am getting my money's worth)	0.52	0.061	11.10***		
$\gamma_{14}$ (I generally shop around for lower prices on apparel products, but they still must meet certain quality requirements before I buy them)	0.72	0.064	14.65***		
$\gamma_{15}$ (When I shop, I usually compare the price information for brands I normally buy)	0.75	0.066	14.70***		
$\gamma_{16}$ (I always check prices at different sources (e.g. flyers, newspaper) to be sure I get the best value for the money I spend)	0.74	0.065	14.49***		
<b><math>\eta_3</math> (Ongoing search behaviour)</b>				0.75	43.68
$\gamma_{17}$ (Often visit clothing stores or departments, just to look around or get information rather than to make a specific purchase)	0.72 <sup>a</sup>	–	–		
$\gamma_{18}$ (Often discuss with retail salespersons to get information during store visit)	0.63	0.072	12.04***		
$\gamma_{19}$ (Often read fashion magazines to get information about trends/styles)	0.56	0.072	10.80***		
$\gamma_{20}$ (Often talk to friends or acquaintances to get information or advice concerning clothing and clothing styles)	0.72	0.075	13.18***		

a First  $\lambda$  path was set to 1 therefore no SEs or t-values are given;

\*  $P \leq 0.05$ ;

\*\*  $P \leq 0.01$ ; and

\*\*\*  $P \leq 0.001$ .

$$b \frac{(\sum \text{Std. Loadings})^2}{(\sum \text{Std. Loadings})^2 + \sum \Theta_j}$$

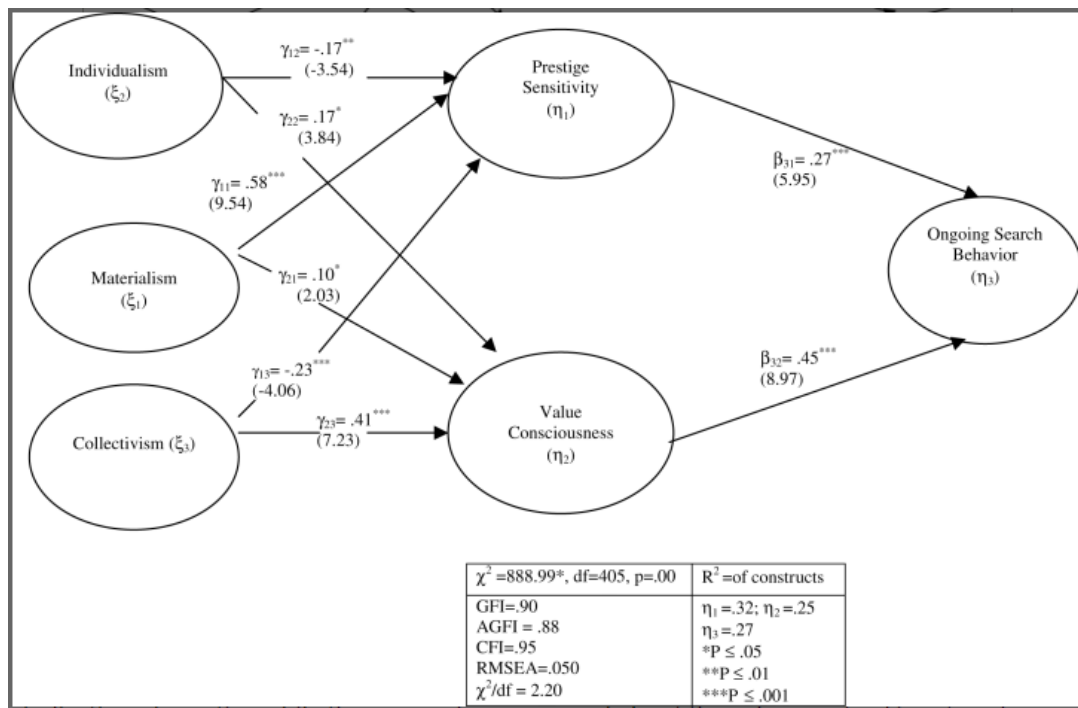
$$c \frac{\sum \text{Std. Loadings}^2}{\sum \text{Std. Loadings}^2 + \sum \Theta_j}$$

## Discriminant validity

Discriminant validity among the constructs was assessed using the interval confidence test and the variance extracted test (Fornell and Larcker, 1981). The confidence test requires that the correlation between two latent constructs plus or minus two standard errors does not include one. Results revealed that this condition was met for all variable pairs. The variance extracted test requires that the squared correlation between two constructs should be smaller than the average variance extracted (AVE) for each construct. The results also revealed that these conditions were met. Based on the results from two criteria, discriminant validity holds for all constructs.

## Structural equation model

The relationships in the model were based on theoretical associations discussed earlier. The results show that all of the hypothesized paths are significant at  $P < 0.05$  (see Fig. 1). The final model reveals a satisfactory fit, as assessed in terms of the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI) and the root mean square error of approximation (RMSEA). GFI and AGFI estimate the extent to which the sample variances and covariances are reproduced by the model. Hayduk (1987) suggested that GFI values exceeding 0.90 and AGFI values exceeding 0.80 are generally interpreted as representing a good fit. Another indication of the satisfactory fit of the model is the RMSEA. A value of RMSEA below 0.80 indicates a good fit (Bentler and Bonette, 1980). Hence, the values obtained for the GFI (0.90), the AGFI (0.88) and the RMSEA (0.050) for the proposed model indicate a satisfactory fit. Although the model's chi-square ( $\chi^2$ ) value of 888.99 ( $P \leq 0.001$ ) with d.f. of 405 was statistically significant, a significant  $\chi^2$  value does not, in and of itself, indicate a poor fit because  $\chi^2$  measures are influenced by the size of the sample (unlike GFI and AGFI) (Bentler and Bonette, 1980).



**Figure 1.** Model predicting American and Korean consumers' ongoing search behavior.

## Hypotheses results

In testing H1, it is evident that materialistic consumers were likely to have a favourable attitude towards price in terms of (1) prestige sensitivity ( $\gamma_{11} = 0.58, P < 0.001$ ); and (2) value consciousness ( $\gamma_{21} = 0.10, P < 0.05$ ). That is, they tended to perceive price to be an indication of prestige while they were also concerned about the value received in return for the price paid. Thus, H1a and H1b were supported.

H2 argued that individualistic consumers were likely to show a favourable attitude towards price perception cues related to (1) positive; and (2) negative roles. Results showed that individualism negatively influenced consumers' price perception cues in terms of prestige sensitivity ( $\gamma_{12} = -0.17, P < 0.01$ ) but positively influenced their perceived price cues in terms of value consciousness ( $\gamma_{22} = 0.17, P < 0.01$ ). That is, these individualistic consumers were less concerned with prestige in buying apparel products than with obtaining value through purchase of apparel products. Hence, H2 was partially supported.

H3 hypothesized that collectivism negatively influenced consumers' price perception in relation to the positive role of price and positively influenced their perception of the negative role. Results revealed that collectivist consumers were less likely to have a favourable attitude towards the prestige sensitivity aspect of price ( $\gamma_{13} = -0.22, P < 0.001$ ) but were more likely to have a favourable attitude towards the value consciousness aspect of price ( $\gamma_{23} = 0.41, P < 0.001$ ). That is, collectivist consumers paid more attention to the value cue of price while placing less emphasis on the prestige cue of price in purchasing apparel products. Therefore, H3 was supported.

H4 and H5 posited that favourable attitudes towards the positive and negative roles of price influenced ongoing search behaviour. The paths to ongoing search behaviour from prestige sensitivity and value consciousness were both positive ( $\beta_{31} = 0.27; \beta_{32} = 0.45$  at  $P < 0.001$  and  $P < 0.001$  respectively). Those who were sensitized to prestige and value consciousness were likely to engage in ongoing search behaviour. Thus, these findings lend support for H4 and H5.

## Testing for moderating effects

To further explore cross-cultural effects, we examined the interaction effects of a categorical variable, that is, country (US vs. Korea), on each hypothesized relationship. Schumacker and Lomax (1996) stated that in testing interaction effects with categorical variables, 'the different samples are defined by the different levels of interacting variables' (p. 216). If interaction effects are present, certain parameters in different samples should display different values. That is, the interaction effect can be determined by the differences in regression slope estimates between samples.

We performed LISREL 8.3-SIMPLIS to examine the interaction effect using country (US vs. Korea) as a moderator in each hypothesized relationship. In testing the hypothesized relationships, separate covariance matrices and means on the dependent and independent variables from two groups (US and Korea) were used, implying that these two models are nested. The  $\chi^2$  difference test between the two models were examined to determine whether there were any significant difference in the slope estimates. If the  $\chi^2$  difference between these two models divided by the change in degrees of freedom was significant, then this indicated that there were significant moderating effects across the American and Korean groups.

Table 4 presents the results of moderating effect of country on each hypothesized relationship. For the relationship between materialism and prestige sensitivity, the difference in the regression slope estimates between the American and Korean groups was 0.06 and the  $\chi^2$  difference test revealed no significant difference between these two groups,  $\Delta\chi^2 = 0.49$ ,  $P > 0.10$ . That is, the significant positive relationship between materialism and prestige sensitivity exists in both samples with similar degree of effect (SlopeUS = 0.57 vs. SlopeKorean = 0.51). In addition, when testing the relationship between materialism and value consciousness, the  $\chi^2$  difference test also revealed no significant difference between these two groups,  $\Delta\chi^2 = 1.05$ ,  $P > 0.10$  ( $\Delta$ Slope = 0.09). That is, materialism had a positive effect on value consciousness in both samples and the degree of effect was not significantly different between these two models (SlopeUS = 0.15 vs. SlopeKorean = 0.24).

In testing the relationship between individualism and prestige sensitivity, the  $\chi^2$  difference test revealed a significant difference between these two groups,  $\Delta\chi^2 = 4.25$ ,  $P < 0.05$  ( $\Delta$ Slope = 0.19). That is, individualism had a negative effect on prestige sensitivity in the American sample, but not in the Korean sample (SlopeUS = -0.17 vs. SlopeKorean = 0.02). Similarly, the  $\chi^2$  difference test revealed a significant difference between the American and Korean samples,  $\Delta\chi^2 = 4.94$ ,  $P < 0.05$  ( $\Delta$ Slope = 0.20) regarding the relationship between individualism and value consciousness. That is, a positive relationship between individualism and value consciousness was found in the American sample but not in the Korean sample (SlopeUS = 0.15 vs. SlopeKorean = -0.05).

When testing the relationship between collectivism and prestige sensitivity, the  $\chi^2$  difference test revealed a significant difference between these two groups,  $\Delta\chi^2 = 5.76$ ,  $P < 0.05$  ( $\Delta$ Slope = 0.27). That is, collectivism had a negative effect on prestige sensitivity in the Korean sample, but not in the American sample (SlopeKorean = -0.20 vs. SlopeUS = 0.07). The  $\chi^2$  difference test also revealed a significant difference between the American and the Korean groups,  $\Delta\chi^2 = 4.73$ ,  $P < 0.05$  ( $\Delta$ Slope = 0.22) when testing the relationship between collectivism and value consciousness. That is, we found a positive relationship between collectivism and value consciousness in both the American and Korean samples. However, the degree of effect was different between these two samples, indicating that collectivism tended to have a stronger effect on value consciousness in the Korean sample than in the American sample (SlopeKorean = 0.38 vs. SlopeUS = 0.16).

With respect to the relationship between prestige sensitivity and ongoing search, the  $\chi^2$  difference test also revealed a significant difference between the American and the Korean groups,  $\Delta\chi^2 = 6.95$ ,  $P < 0.01$  ( $\Delta$ Slope = 0.23). That is, although the results revealed the existence of a positive relationship between prestige sensitivity and ongoing search in both samples, the degree of effect tended to be stronger in the American sample than in the Korean sample (SlopeUS = 0.43 vs. SlopeKorean = 0.20). Likewise, when testing the relationship between value consciousness and ongoing search, the  $\chi^2$  difference test also revealed a significant difference between the American and the Korean groups,  $\Delta\chi^2 = 13.11$ ,  $P < 0.001$  ( $\Delta$ Slope = 0.34). Although the results revealed the existence of a positive relationship between value consciousness and ongoing search in both samples, the degree of effect tended to be stronger in the Korean sample than in the American sample (SlopeKorean = 0.58 vs. SlopeUS = 0.24).

**Table 4.** Cross-cultural comparison between American and Korean consumers

<b>Hypothesized relationships</b>	<b>American</b>		<b>Korean</b>		<b>ΔSlope</b>	<b>Δχ<sup>2</sup> (1) when slope values invariant</b>	<b>P-value</b>
	<b>Intercept</b>	<b>Slope</b>	<b>Intercept</b>	<b>Slope</b>			
Materialism → Prestige sensitivity	1.39	0.57	0.85	0.51	0.06	0.49	>0.10
Materialism → Value consciousness	3.96	0.15	4.24	0.24	0.09	1.05	>0.10
Individualism → Prestige sensitivity	3.33	-0.17	3.79	0.02	0.19	4.25	<0.05
Individualism → Value consciousness	4.69	0.15	4.70	-0.05	0.20	4.94	<0.05
Collectivism → Prestige sensitivity	0.36	0.07	2.89	-0.20	0.27	5.76	<0.05
Collectivism → Value consciousness	3.71	0.16	3.27	0.38	0.22	4.73	<0.05
Prestige sensitivity → Ongoing search	2.04	0.43	3.43	0.20	0.23	6.95	<0.01
Value consciousness → Ongoing search	2.63	0.24	0.96	0.58	0.34	13.11	<0.01



## Conclusions

Overall, the results of this study successfully establish a cognitive/behavioural model of values-price perception-ongoing search behaviour using samples from two cultures: the US and Korea. Specifically, we found that highly materialistic people were likely to have favourable attitudes towards psychological aspects of price. Highly materialistic people, who tend to be concerned with self-image and status, responded favourably towards prices that served as an indication of prestige, a positive role of price. That is, buying expensive apparel products helped them gain a feeling of prominence that may reflect high status as perceived by others (Lichtenstein et al., 1993). At the same time, highly materialistic people also responded favourably to price cues associated with the negative role of price (i.e. value consciousness). This indicates that they appreciated a good deal, perhaps because it allowed them to acquire more products for the same amount of money spent.

Unlike highly materialistic individuals, highly individualistic people were less likely to base their price perceptions on the prestige associated with the price (positive role), but more likely to base their price perceptions on value consciousness (negative role). These findings seem to indicate that, while individualistic American people are less likely to associate high price with prestige, the value obtained from purchasing apparel products tends to be more emphasized. In contemporary society, conspicuous consumption may not be solely related to the consumption of full-price, in-season and prestige brands. Instead, demonstrating the ability to purchase wisely and to make one's dollar go further by purchasing sale or off-season merchandise may be valued more by individualistic American consumers.

In addition, results revealed that collectivist people are less likely to react favourably to the positive role of price but are more likely to react favourably to the negative role of price. These findings are logical, given the importance placed on thrift in collectivist cultures (Gong, 2003). Furthermore, because collectivists place more emphasis on group cohesion than on individual achievement, these collectivists in particular would not to separate themselves from their social group by purchasing and wearing apparel products that would not be consistent with what the rest of their social group could afford. Additionally, these collectivists may be more concerned with getting a good deal as opposed to showing individuals achievement and prestige.

This study emphasized the fact that the two major cues of price perceived by consumers have an effect on market behaviour. In addition, this study shows that such aspects of perceived price are predictive of ongoing search behaviour. That is, the more the individuals perceived price to provide a signal of prestige, the more likely they were to conduct search activities that were totally independent of consumption-related problems (e.g. browsing a store). Similarly, the more individuals were concerned with the investment of their monetary sources relative to the quality received (i.e. value consciousness), the more likely they were to conduct ongoing search activities.

The results of the tests for the moderating effects of country on the hypothesized relationships suggest that the values of individualism and collectivism do have a different impact on price perception and subsequent marketplace behaviour in different countries. While the value of individualism had a significantly more marked impact on US consumers' than Korean consumers' prestige sensitivity and value consciousness, the value of collectivism had a significantly greater impact on Korean consumers' than US consumers' prestige sensitivity and value consciousness. This finding is not surprising, given the fact that Americans traditionally tend to be more individualistic than Koreans, and Koreans tend to be more collectivistic than Americans. The results of the tests for the moderating effects of country also suggest that prestige sensitivity had a stronger impact on the ongoing search behaviour of American participants than

Korean participants and that value consciousness had a stronger impact on the ongoing search behaviour of Korean participants than American participants. These findings lend support to a traditional view of consumer behaviour in which US consumers tend to be more concerned with the prestige they can gain from the purchase of an item and Korean consumers tend to be more concerned with the value they receive from the purchase of an item. This notion of cross-cultural consumer behaviour, however, is challenged by other findings from this study that suggests that a negative relationship exists between individualism and prestige sensitivity. Perhaps this finding indicates that, over time, US consumers and Korean consumers have become less different and will continue to do so in the future. This idea is further supported by the finding that the value of materialism did not affect price perception significantly differently by country. Materialism seems to be a universal value that has a similar impact on consumer behaviour across the globe.

## **Implications**

The results from this study suggest a causal flow from values to consumers' price perception to ongoing search behaviour. This model suggests that cultural values serve as important factors, predicting the way consumers perceive price cues in a marketplace, which in turn determines their ongoing search behaviour. In addition, the results from this study suggest that materialism, individualism and collectivism can have a negative and a positive impact on consumption behaviour.

These findings have implications for firms currently doing business cross-culturally and those are contemplating undertaking such an endeavour. Global firms need to be cautious when developing communication strategies. In some cases, a localized, country-specific advertising approach may be necessary. While an advertising campaign for high-priced products (e.g. Gucci apparel and accessories) with a strong emphasis on prestige may be effective among American college students, the same ad may not be effective among young Koreans because this segment is more value conscious than others. In contrast, an advertisement emphasizing value consciousness may be more effective in collectivist Korean culture than individualistic American culture. If, however, a standardized, global advertising approach is desired, then the results of the present study suggest that an appeal to consumers' sense of materialism may be well advised in any country. According to the present research, materialism does not have a different impact cross-culturally, which support Belk's (1985) and Lafayette's (1989) findings that materialism is a value whose importance is on the rise across the globe.

Regarding the effect of price perception on ongoing search behaviour, the present research found that price perception, both positive and negative, was an antecedent of ongoing search behaviour. Because ongoing search behaviour has been linked to product purchase (Bloch et al., 1986), retailers in every country should attempt to encourage ongoing search behaviour. By providing excitement (e.g. retail-tainment, positive store image), retailers should be able to attract and retain consumers. In this way, consumers can be encouraged to engage in ongoing search activities to become aware of a variety of market offerings and pricing schemes at various retailers so they can use this information when they are ready to purchase.

## **Limitations and future research direction**

Due to the limitations associated with this study, these findings should be interpreted with caution. First, the majority of participants were female. Also, the income level of these two samples were

different; the US sample was composed of mostly students from high-income families whereas the Korean sample consisted mostly of students from middle-class families. Thus, perception of price among these two samples is different. It could be meaningful to control such factors to provide other interesting findings. Second, future research may need to include the effects of other value orientations on price perception such as the concept of vanity. Third, this study needs to be replicated with a random sample from general populations of both countries. Last, the Korean sample may not be representative of all Asian cultures; other Asian cultures (e.g. Thai, Chinese) may need further attention.

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