

Decision-making Styles of Young-adult Chinese Consumers: An International Comparison¹

Using a modified framework of consumer decision-making styles and data recently collected from five Chinese universities, this study investigated the dimensions and profiles of consumer decision-making styles of young-adult Chinese consumers and compared the results with those of similar studies utilizing American and Korean data.

Jessie X. Fan, University of Utah²

Jing J. Xiao, University of Rhode Island³

Yinzhou Xu, Guangdong Commercial College⁴

This study has several purposes: (1) to develop a modified and improved conceptual framework to study consumer decision-making styles in general, based on existing literature in this field; (2) to study the dimensions of consumer decision-making for young Chinese consumers; (3) to provide a profile of consumer styles for young Chinese consumers; and (4) to compare the consumer decision-making styles of young Chinese consumers with those of young American and Korean consumers.

The study cannot only enhance our understanding of the process of consumer decision-making, but also has implications in educating consumers about their decision-making styles and counseling families on financial management (Sproles and Kendall, 1986). International comparisons of consumer decision-making styles can further our understanding of the impact of market environment on consumer decision-making, and possible cultural differences in consumer decision-making styles. International consumer research is also useful in the building of a general science of consumer ecology and in better understanding of one's own culture while comparing it with another.

Several features are unique in this study: (1) this is the first study that uses Chinese consumer data to study consumer decision-making styles; (2) this study develops a modified and improved conceptual framework to study consumer decision-making styles in general; and (3) this study conducts an international comparison of consumer decision-making styles to further our understanding of this topic.

Modified Conceptual Framework

The assumption underlying the consumer characteristics approach is that consumers have several

cognitive and affective orientations that determine their consumer decision-making styles (Sproles and Kendall, 1985; 1986). When making a purchasing decision, a consumer has several dimensions he/she has to consider simultaneously. For example, how much information should he/she collect about this product? How much time should he/she spend on searching? How much is he/she willing to pay for the product? Which brand should he/she prefer? And how much attention should he/she pay to the quality of the product? These dimensions of consumer decision-making are assumed to be independent of each other.

Based on previous literature, Sproles and Kendall (1986) proposed an eight-dimension model of consumer decision-making: (1) perfectionism or high-quality consciousness, (2) brand consciousness, (3) novelty-fashion consciousness, (4) recreational, hedonistic shopping consciousness, (5) price and "value for money" shopping consciousness, (6) impulsiveness, (7) confusion from over-choice, and (8) habitual, brand-loyal orientation toward consumption. Hafstrom et al (1992) added another dimension of "time-energy conserving" to the original eight-factor model. A close examination of these nine factors revealed possible overlaps among the dimensions, which violated the assumption underlying this approach. Specifically, there were three issues of concern related to these nine factors: (1) The dimension "price-value conscious" was a combination of "price" and "quality" dimensions, given that the term "value" implied "paying the lowest price possible for the highest quality"; (2) The dimension "impulsiveness" seemed to overlap with "habitual, brand-loyal orientation toward shopping," since these two characteristics were just the opposites to each other; and (3) The dimension "time-energy conserving" reported by Hafstrom et al (1992) seemed to overlap with the "recreational shopping consciousness"

dimension, as the authors themselves suspected.

Thus, there was a need to develop a more clear-cut conceptual framework to guide the investigation of consumer decision-making styles. Based on the results of previous studies, we proposed the following as among the most basic mental characteristics of consumer decision-making in our modified conceptual framework: (1) brand-consciousness; (2) fashion-consciousness; (3) quality-consciousness; (4) price-consciousness; (5) time-consciousness; (6) selection-methods; and (7) information-awareness.

Dimensions (1) through (4) were characteristics related to the product a consumer purchases, and were therefore similar to dimensions (1), (2), (3) and (5) in the framework proposed by Sproles and Kendall (1986). "Value for quality" was not included in our "price-consciousness" dimension for reasons discussed earlier. Dimensions (5) through (7) were related to the shopping process. "Time-consciousness" should include both "time-energy conserving" and "recreational shopping" as two opposite ends of this dimension. "Selection-methods" should include both "impulsiveness" and "habitual purchase" as two opposite ends of this dimension. Finally, the dimension of "information-awareness" should include not only "confused by over-choice," but also "being able to process and take advantage of information available" as the opposite end.

Even with these reduced dimensions, some overlaps might still exist. A possible crossover could be between the "fashion" dimension and other dimensions. In their Footnote 4, Sproles and Kendall (1986, p.271) reported moderate, yet significant correlation between their "fashion-consciousness" and "brand-consciousness" dimensions, and "fashion-consciousness" and "recreational-shopping consciousness" dimensions, among other things. Fashion could be led by certain brands that have established the reputation of being fashionable over time, and only consumers who loved shopping would likely be aware of what was fashionable. There might be a possible crossover between "brand" and "quality," especially for experience goods where consumers could not judge the quality just by viewing the products. Furthermore, "selection methods" in the shopping process might overlap with "time-consciousness," since consumers who hate spending time shopping were probably more likely to be habitual shoppers, while consumers who enjoyed shopping were more likely to be impulsive shoppers.

Methods

Data Collection

The data used in this study was collected in the summer of 1996 from five universities in Guangzhou, China. The questions in the questionnaire were originally used by Hafstrom et al (1992), which generated meaningful results and were reported in English. These questions were translated into Chinese by a consumer economics professor who is a native speaker of Chinese with an advanced degree in consumer economics in the United States. Under the supervision of an international economics professor, students in an upper level economics class at a university in Guandzhou, China, went to five universities in the same city to distribute and collect questionnaires. Among 407 students who returned usable questionnaires, 39% were females, 81% from urban hometowns, 42% economics and business related majors.

Method of Analysis

Following Sproles and Kendall (1986), similar analytical methods were used in this study. Based on our modified conceptual framework, we did our factor analyses with 7, 6 or 5 factors, testing the possibility of overlaps between certain factors among young Chinese consumers. The method of factor analysis used was principle component analysis with varimax rotation (Kim and Mueller, 1978).

Cronbach alpha reliability tests (Carmines and Zeller, 1979) were then conducted to test the reliability of the items and descriptive analysis profiling consumer decision-making styles for young Chinese consumers were carried out. Finally, the consumer decision-making styles of young Chinese consumers were compared with those of the young Korean and American consumers.

Results and Discussion

Models with Different Numbers of Factors

A seven-factor model clearly identified five dimensions: (1) brand-consciousness; (2) time-consciousness; (3) price-consciousness; (4) quality-consciousness; and (5) information-awareness. The last two dimensions were some combinations of "selection methods" and "information-awareness." Cronbach alpha reliability tests were conducted using the four items loading highest on each factor. The results of the reliability tests, presented in Table 1 (available from the authors upon requests), showed that the last two factors

were unreliable. A six-factor model confirmed the first five dimensions in the seven-factor model, with a sixth factor being a combination of the "time-consciousness," "selection methods" and "information-awareness." Again, Cronbach alpha reliability tests showed the last factor to be unreliable. The results of the five-factor model further confirmed the first five factors, with all factors showing reliably based on the Cronbach alpha statistics.

Clearly, the seven-factor model proposed in the conceptual framework had overlaps among different dimensions. A close examination of the six-factor model also revealed an unreliable and not very meaningful sixth factor. The possibility of overlaps between dimensions was discussed in the conceptual framework section. Given the results of data analysis, we thought a five-factor model was the most appropriate one when using this data set. The five-factor model was also supported by "scree-test." The scree-test directed one to examine the graph of eigenvalues, and to stop factoring at the point, where the eigenvalues began to level off, forming a straight line with an almost horizontal slope (Kim and Mueller, 1978, p.44). In our analysis, the eigenvalues started to level off after the fifth factor.

Results of the 5-Factor Model

The results of the 5-factor model are presented in Table 2. Items loading .4 or higher on each factor are reported. The final communality total was 13, which implied that the five factors explained 35% (13/37) of the variances.

Compared to the proposed conceptual framework with seven dimensions of consumer decision-making styles, two dimensions were not confirmed using our data set. These two dimensions were the "fashion-consciousness" and the "selection methods" dimensions. As discussed earlier, the "fashion-consciousness" is probably embedded in the "time-consciousness" dimension, since consumers who are fashion-conscious are likely to be recreational shoppers.

As discussed in the "Framework" section, we considered the dimensions "impulsive, careless consumer" and "habitual, brand-loyal consumer" used by previous studies (Hafstrom et al, 1992; Sproles and Kendall, 1986) to be one dimension, and labeled this dimension as "selection method." In this study, most questions representing "method of selection" dimension, such as "I have favorite brands that I buy over and over again," "I change brands I buy regularly," and "Once I find a product or brand, I stick with it," which were loaded in the dimension of "habitual, brand-loyal

consumer" in Hafstrom et al (1992), did not load high on any of the five factors. In Hafstrom et al (1992), four items were loaded on the factor labeled "impulsive, careless consumer," but in this study three out of the four items were loaded on three factors: time-consciousness, quality-consciousness, and information-awareness, respectively. We suspect that the dimension of "selection methods" is a function of some or all of the five dimensions identified. For example, impulsive purchasing behavior is probably linked to recreational shopping with little brand, quality or price consciousness.

Based on the results of our data analysis, we propose a further modified conceptual framework to analyze the consumer decision-making style for young Chinese consumers. This framework should include five dimensions: (1) brand-; (2) quality-; (3) price-; (4) time-; and (5) information-conscious.

A Profile of Consumer Decision-Making Styles for Young Chinese Consumers

Following the same approach used by Sproles and Kendall (1986), we developed a profile of consumer decision-making styles for young Chinese consumers, employing the four-item subscales. Scores on each factor were computed by adding raw scores on the four top-loading items, for each consumer in the sample (items loaded negatively were reverse scored). The range of the scores a consumer in the sample could have on any factor was from 4 to 20. Table 3 (available from the authors upon requests) presents the means of each four-item scale, and quartile score ranges. These statistics can be used to calculate profiles of consumer decision making styles for individual consumers, as Sproles and Kendall (1986, Table 4) did, which would be useful for consumer education and financial counseling.

The results show that the average young Chinese consumer in the sample was not very brand-conscious, but quite quality- and price-conscious. He/she was neither very interested in recreational shopping, nor too confused by the available product and shopping information.

Comparison: China, Korea and the United States

The conceptual framework used in this study was slightly different from the ones used in Sproles and Kendall (1986) and Hafstrom et al (1992). Actual questions and numbers of questions used were different between these studies. Same questions, when translated from English to Korean or Chinese, might have different underlying meanings. Furthermore, cultural and situational differences between these nations should be

Table 2.

Characteristics of Chinese young-adult consumer decision-making styles: five-factor model with loading .4 or higher

Styles Characteristics and Items	Factor Loadings
Factor 1. Brand-Consciousness: Highly advertised brands are usually very good A brand recommended in a consumer magazine is an excellent choice for me The well-known national brands are the best for me The higher the price of a product, the better its quality I usually compare advertisements to buy fashionable products Expensive brands are usually the best All brands are the same in overall quality The most expensive brands are usually my choices	0.64 0.55 0.55 0.53 0.46 0.44 0.42 0.41
Factor 2. Time-Consciousness : I take the time to shop carefully for best buys I enjoy shopping just for the fun of it I keep my wardrobe up-to-date with the changing fashions Shopping the stores wastes my time (-) I cannot choose products by myself (-) I make my shopping trips fast (-) I am impulsive when purchasing	0.71 0.66 0.56 -0.50 -0.47 -0.46 0.45
Factor 3. Quality-Consciousness: My standards and expectations for products I buy are very high I make specially effort to choose the very best quality products I usually buy well-known, national, or designer brands When it comes to purchasing products, I try to get the very best or perfect choice It's fun to buy something new and exciting I should plan my shopping more carefully than I do	0.69 0.60 0.45 ^b 0.42 0.42 0.40
Factor 4. Price-Consciousness: I carefully watch how much I spend I consider price first The lower price products are usually my choices I usually compare at least three brands before choosing The most expensive brands are usually my choices (-) I usually buy well-know, national, or designer brands (-)	0.68 0.56 0.54 0.52 -0.50 ^a -0.44 ^b
Factor 5. Information-Awareness: All the information I get on different products confuses me There are too many brand to choose from that often I feel confused Sometimes it's hard to choose which stores to shop Often I made careless purchases I later wish I had not	0.65 0.57 0.53 0.48

a Item loads on factor 1 and 3.

b Item loads on 3 and 4.

considered. Given these, formal and direct comparison of results of these studies were difficult, and following discussion should be viewed as only informal and indirect comparison.

Number of dimensions. Table 4 (available from the authors upon requests) presents the comparison of dimensions identified in these three countries. Overall, the dimensions of consumer decision-making identified were very similar among young-adult consumers in these three countries. Young consumers in the three countries

all had these five dimensions: (1) brand-consciousness; (2) quality-consciousness, (3) price-consciousness, (4) time-consciousness, and (5) information-consciousness. While the dimensions of "time-energy conserving" for the Korean sample and "novelty-fashion consciousness" for the American sample could be embedded in the "time-consciousness" dimension, the dimensions of "impulsive" and "habitual-brand-loyal," both identified for the Korean and the American samples, were not confirmed using the Chinese sample. The difference may result from the

different economic growth stages of these countries. Both the United States and South Korea have much matured market economies and consumer purchasing powers are much higher than Chinese consumers. The missing dimensions of consumer decision-making styles may be identified later when China's economic growth achieves a higher level and consumer purchasing powers become stronger.

Profiles of consumer decision-making styles.

Sproles and Kendall (1986, Table 3) calculated scores of three-item subscales for the identified dimensions based on the data from a sample of American high school students. In this study, we calculated the similar scores of four-item subscales for identified dimensions based on a sample of Chinese college students (Table 3). Keep the differences of the computational methods and samples in mind, the two sets of scores present some interesting diversities. Obviously, American consumers tend to have higher scores in all dimensions. For example, only 15% of American samples but 52% of Chinese samples were in the "low" category of scoring of dimension "brand-consciousness." The difference may reflect the different levels of maturity of consumers in the two countries. American consumers, even as young as high school students in the sample, may be more advanced in the consumer socialization process than the Chinese consumers who are college students in our sample, which is understandable considering the stage of economic development and transitional economy status in current China.

Another difference is that American consumers seemed more likely to be confused by over-choice. In the dimension "information-awareness" that was labeled as "confused by over-choice" in Sproles and Kendall (1986), the sample mean of Chinese consumers was less than the expected mean, 11.5 vs. 12, but the sample mean of American consumers was greater than the expected one, 9.7 vs. 9. The difference may result from the market development levels of the two countries. Even though the consumer commodity market in China has been developing rapidly, the actual level is still much lower than the one in the United States, and information overload may not be a serious issue compared to the situation in the United States. Since Hafstrom et al (1992) did not report a profile of consumer decision-making styles for their Korean sample, no comparison can be made between the Chinese and the Korean consumers in this respect.

Item loading. The items loaded on each dimension were quite similar, although not exactly the

same. The item "A brand recommended in a consumer magazine is an excellent choice for me" loaded on the "brand-consciousness" dimension for the Chinese sample, but on the "time-energy conserving" dimension for the Korean sample, and did not load significantly on any of the factors identified for the American sample. The item "I usually buy well-known, national or designer brands" loaded positively on the "quality-consciousness" dimension for the Chinese sample, but on the "brand-consciousness" dimension for the Korean sample, and did not load significantly on any of the eight factors for the American sample.

There are two categories of products that are considered to be brand-name products by Chinese consumers. One category is the well-established domestic brands, such as many products made in the Shanghai area. These products have been well known for their good qualities even before the economic reform in 1978. The other category is products that are either newly imported, or manufactured by joint-ventures in China. Manufactures of these products heavily advertise their products to establish a "yuppy product" image. The products are usually fashionable and expensive, yet the quality is not necessarily good. It is possible that the students in our sample interpreted the national brands as the first category of domestic national brands, and the brand names recommended by consumer magazines the second category of brand-name products whose manufacture spend much money on advertising. Therefore, the first category of brand-name products are more likely to be identified with the quality dimension, and the second category of brand-name products are more likely to be identified with the brand dimension.

Conclusions

In this study we presented a modified conceptual framework of consumer decision-making styles based on previous studies in order to make it logically more consistent. Using data recently collected from five Chinese universities, a five-factor model of consumer decision-making styles was confirmed. The model assumed that consumer decision-making styles have five dimensions that are brand-, time-, quality-, price-, and information-consciousness.

Informal comparisons between this and previous studies indicated several differences between young Chinese consumers, and young American and Korean consumers. Our analysis did not confirm two other dimensions proposed: "selection methods" and "fashion

consciousness", while one or both of the two dimensions were reported in previous studies using American and Korean data. The comparisons also indicate that a larger percentage of Chinese consumers tend to score low in all confirmed dimensions than their American counterparts. Differences of item loadings were also found.

Aside from the differences identified, the major dimensions of consumer decision-making styles are similar in all three studies. The five dimensions confirmed in this study were confirmed by studies using data from the United States and South Korea.

This study has two limitations. First, in this study we used a modified conceptual framework, but the questions asked were based on previous studies using a slightly different conceptual framework. Thus, some questions that should be asked based on the modified conceptual framework were not asked in this study. Second, an international comparison would be much more powerful if raw data were collected simultaneously from consumers with similar characteristics in several countries. In this study, only informal and indirect comparisons were made because of data limitations. Another issue of international comparison research is to identify items that can be used in different countries or cultures without misperception or misinterpretation.

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Endnotes

1. Because of the page limitation, this version is much shorter than the original paper. A longer version is available from Xiao upon request.
2. Assistant Professor, Department of Family and Consumer Studies.
3. Associate Professor, Consumer Affairs Program.
4. Professor, Department of International Economics.