

### **Chinese Consumer Types: A Correspondence Analysis**

Based on data from a recent survey and a correspondence analysis, Chinese consumers were divided into four types. Among them, 50.8% were the "pragmatic" type who seek practical aspects of consumer goods without caring about commercial information, 33.9% were the "commercialized" type pursuing commercial information and brand name products, 11.7% were the "sociable" type getting information mainly from friends, and only 3.6% were the "conservative" type ignoring commercial information and disliking social changes.

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In 1978, China started its economic reform and open door policies, moving from a central command economy to a market economy. The transition process provides Chinese people an opportunity to be reborn as consumers in a real sense. Before the reform, Chinese had limited income that could be used only to purchase necessary consumer goods, of which many were rationed. In other words, the Chinese consumers had very limited choice in the consumer market and "consumer", literally, was a rare word to be used twenty years ago (Xiao, 1997). Since the economic reform, the market economy is forming, disposable family income is rapidly increasing, and consumer markets and marketing activities, like advertisements, which both benefit and annoy ordinary Chinese consumers, are growing and expanding. What are consumer characteristics during this historically significant transitional process? This study attempts to answer this question. Based on a survey conducted in Beijing, this study categorized consumer types with a multidimensional classification approach. This is the first study using this analytical approach with data from Chinese consumers. The findings of this study will further understanding of consumer attitudes and perceptions in the transitional China and lay the foundation for future studies on Chinese consumers and international comparison of consumer behavior.

#### **Previous Research on Consumer Perceptions and Attitudes in China**

Previous studies on consumer perceptions and attitudes in China are scarce, but they are growing recently. In the early 1980s, at the beginning of Chinese economic reform, Thorelli (1983) conducted a study on consumer behavior in China and concluded that Chinese had not formed an attitude towards advertising and their sense of it was still quite crude. However, according to the results of a survey carried out between 1988 and 1989, consumers were showing high interest in advertising and approaching it with the intention of acquiring information on shopping and products. Thus "as advertising is used as the information source of products, it is having various social and cultural effects on the lives of consumers, centered around the influence towards shopping" (Yamamoto, 1989). A survey conducted in 1994 indicated that the percentages of both positive and negative attitudes towards advertising among Chinese consumers had increased in the past five years (Li, 1997).

Two studies investigated Chinese consumer perceptions on and attitudes towards the economic reform and decision making styles. Xu, Fan, and Xiao (1997) reported that compared with American young adults, Chinese counterparts were more likely to have a negative attitude towards business people and a suspicious attitude towards business speculations. In another study, Fan, Xiao, and Xu (1997) found that dimensions of consumer decision making styles were similar among young consumers in China, the U.S., and Korea, although Chinese consumers were less brand conscious and more price and quality conscious. Hu and Kang (1997) conducted a literature review of studies on Chinese consumers and concluded that the number of the studies has been few and more studies are needed.

#### **Method**

##### Background Information about Beijing

Data used in this study were collected from Beijing, the capital and the second largest city of China. Beijing has a population of 10,618,000 (IMI Marketing Information Institute & International Advertising Institute, 1995). Compared to other Chinese cities, Beijing has the largest proportion of university graduates and the lowest illiteracy rate,

and its residents have a higher educational level. Furthermore, the levels of income and spending are the second highest in China after Shanghai (Institute of China Research, 1991).

Beijing's shopping environment, which is influential on consumer behavior, has been changing rapidly since 1980. In 1980, there were only 16,833 stores in Beijing, compared to 127,627 in June 1991 (Yan, 1991). Because of the increase of new stores, consumer and purchasing behavior has also changed. For example, Wangfujing and Xidan used to be the shopping centers in Beijing, where many department stores and specialty shops were located and famous brands and new products were for sale. Today, the number of customers of these centers has been decreased, and more than 80% of them come from outside Beijing, which implies that the local Beijing people purchase more often in stores close to their neighborhoods.

### Questionnaire

Questions used in the questionnaire were based on the framework outlined in Kuroda (1982) and Yoshida (1985). According to the framework, people's perceptions and values have been changing and diversifying in response to the social conditions of the times. In order to understand and analyze these changing perceptions, it is necessary to examine various factors that may determine the change. The following four factors, identified by Kuroda (1982) and Yoshida (1985), were considered in this study:

(1) Information orientation: This factor relates to information acquisition, such as how people find out about new products and goods, how they view their relationship with other people, and how they react to other people's opinions.

(2) Purchasing style: This factor relates to price and brand awareness, such as purchasing styles and awareness of famous brands.

(3) Life objective: This factor relates to people's view of life, such as what they think about their work, family, free time, and interests, and how they see their future.

(4) Social and economic factor: This factor relates to how people view themselves in their living environment, such as their attitude to life, the security of their future, and what they think of social changes.

Based on these four factors, sixteen questions regarding consumer awareness and attitudes were developed first in Japanese and then translated into Chinese. These questions and the frequency percentages of the answers are attached in the Appendix.<sup>3</sup> The questionnaire also included several other questions for demographic information.

### Data Collection

The survey approach used in this study was a combination of judgmental and convenient sampling. First, four out of ten districts in Beijing were selected based on the researcher's judgment. The four districts are different in demographic characteristics. District Dongcheng is the center of Beijing with a comparatively large number of long-term Beijing residents. District Chaoyang is in the east of Beijing, where three large textile factories are located with a concentration of textile workers. District Haidian in the northwest of Beijing has many universities and research institutes, which is Beijing's educational and research center. District Shijingshan in the southwest of Beijing is the home for the largest iron and steel company in the country, where many residents are employees of the company.

Convenient sampling was used to choose 100 residents from each of the four districts. With assistance of resident committees (jumin weiyuan hui), the local community agencies in Chinese cities, in these districts, the questionnaires were distributed to selected families and collected ten days later. The survey was conducted between September and October, 1990. A total of 275 usable questionnaires were returned, which had a response rate of 68.8%.

### Data Analyses

The Hayashi's (1950, 1982) Quantification Method III, which is called correspondence analysis in the U. S., was used to analyze the data. This method is a multivariate descriptive statistical method that represents graphically the rows and columns of a categorical data matrix in the same low-dimensional space. As Hoffman and Franke (1986) summarized, this method has several advantages. First, it has multivariate treatment of data through the simultaneous consideration of multiple categorical variables. Second, it shows how variables are related with graphic displays. Third, it has flexible data requirements, only a rectangular data matrix with non-negative entries is needed. However, this approach is an exploratory data analysis method that requires the expertise and experience of the researchers to interpret the findings.

## Findings and Discussion

### Descriptive Statistics of the Sample

Of the 275 respondents of the survey, 131 (47.6%) were men, 134 (48.7%) were women, and 10 (3.7%) did not report gender. Most respondents were in their twenties (47.6%) and thirties (22.9%). The occupation distribution of the respondents was as follows: white collar workers were 58.5%, blue collar workers 9.5%, students 12.4%, and other occupations 13.8%. Only 2.2% were housewives, which was still unusually high in China since almost all couples work, especially in the urban area.

The education attainment distribution among the respondents was the following: elementary school level accounted for 3.6%, junior high 6.2%, high school 17.1%, and technical school, university or higher 73.1%, which indicates that the sample is better educated than average Beijing people. According to the 1990 Census, the education levels of Beijing people were as follows: elementary school (21.1%), junior high school (31.1%), high school (19.3%), and technical school or university (9.5%). The highest percentage of household heads who were state run enterprise employees was 42.2%. Over half of the respondents (58.2%) reported having an annual family income "more than 3,000 yuan," compared with the average family income of 2,653 yuan in Beijing in the same year (IMI Marketing Information Institute & International Advertising Institute, 1995). Most of the respondents (66.5%) were living in a house belonging to the state. The percentage of respondents using public or company transportation was 2.2%, and the percentage of those possessing a bicycle was 92.4%.

Table 1  
Correlation Coefficients and Eigenvalues

	Correlation Coefficient	Eigenvalues
Axis 1	.3458	.1196
Axis 2	.3097	.0959
Axis 3	.2934	.0861

### Identified Factors

Using the Hayashi's Quantification Method III, three factors, Axis 1, 2, and 3, were identified. Table 1 presents the coefficient of correlation and eigenvalue for each factor.

Table 2 shows variables that are associated with the identified factors.<sup>3</sup> The degree of the influence of the variables on these factors can be recognized by the corresponding partial coefficients. For example, household head's occupation exerted the most influence on Axis 1. In Axis 2 the most influential variable was age, and gender was the most influential on Axis 3.

In this study, the first two factors (Axes) were focused. Table 3 presents the category scores of questions on each factor.<sup>3</sup> Because of the exploratory nature of this analytical method, the labels of the axes were given in a rather arbitrary way, but efforts were made to capture the essence of each factor by observing the items, especially the items with higher positive or negative values, on each axis. Based on the findings in Table 3, the two identified factors were labeled as follows.

Axis 1 - Information orientation that relates to other people's opinions and advertising.

Axis 2 - Price concern that relates to consumer's attitudes towards product prices.

### Consumer Types

The identified two factors were used to form four types of consumers, which is shown in Figure 1.<sup>3</sup> Note that the types were classified, indicated in the circumscribed areas in the figure, based on the calculation of distance matrix with this particular method. After observing the items in each type, the four types of consumers were named as the pragmatic, commercialized, sociable, and conservative.

Table 4 presents the frequencies and percentages of the four consumer types. Of all types, the "pragmatic" type has the highest percentage, 50.8%. This is the type of consumer who does not care much about commercial information but pursues the practical aspects of consumer goods. This type of consumer tended to respond that "I go straight to the shop and buy something", "I don't really care about the name of the store", "I want something practical", "I think about whether I can afford it or not", "When I have a holiday I avoid spending much money, and go with my family on a picnic".

The next largest group is the "commercialized" type (33.9%). This is the type of consumer who seeks commercial information and is aware of brand names. When asked about purchase practices, they tended to respond, "I buy after seeing advertisements", "If the store is famous I feel the product must be good so that is where I go", "I buy brand names", "I buy it, without thinking about whether I can afford it", and "When I have a holiday I go away for a few days and spend the money staying at a hotel". The "sociable" type included 11.7% of the respondents who enjoy their friends and current life and tended to respond, "When I buy consumer durable goods I follow the opinion of my friends and shop assistants", "I like having contact with as many people as possible", "I get on very well with my neighbors", "Giving priority to work and increasing one's income result in prosperity and safety for the household", "When saving up to buy an electrical product I stick to my original plan, even if life gets hard", and "I have most electrical items". Finally, the "conservative" type had the lowest percentage (3.6%), representing the consumer type who does not welcome any change in their personal life or society as a whole. These consumers tended to respond that "I like having close contact with a small number of people", "I'm fine with my present income", "I stick to my own opinion", and "I don't need all that much income or property".

Table 4  
Consumer Types

Type	Frequency	%
Pragmatic	126	50.8
Commercialized	84	33.9
Sociable	29	11.7
Conservative	9	3.6
Total	248	100.0

Among the four types, the "pragmatic" type is reflective of the old central command economy. Consumers of this type got used to the invariant prices and limited supplies of consumer goods under the old economic system, but are not used to utilizing commercial information. This type of consumer is also consistent with traditional Chinese values that consider thrift as a virtue. This study indicated that the majority of respondents belonged to this type, which was partly consistent with previous studies. When asked to choose an option "thrifty is virtue" or "spending is virtue," the majority of the respondents had chosen the former in surveys conducted in several Chinese cities (Li, 1997).

The "commercialized" type mirrored the new and emerging market economy. This type of consumer would like to use commercial information and to purchase brand name goods. In a recent survey, consumers in more developed cities, like Shenzhen, were more likely to choose "spending is virtue" than their counterparts in less developed cities, like Beijing (Li, 1997). In the need of economic development, some Chinese consumption economists and government officials encouraged consumers to spend more instead of saving more. This group tends to expand along with the economic development of China.

The "sociable" type seemed to acquire product information through friends and satisfied with their current life. It is common for Chinese to acquire and disseminate information through friends. This may be a group of consumers who are satisfied with their current living conditions compared to their peers. The "conservative" type is typical in the older Chinese population. They are missing the "golden" old time and do not like the dramatically systematic change in the whole society, especially the increasingly commercialized aspects of the society.

#### Discussion of Selected Items

Awareness of Advertising. The findings of this study provided evidence that consumers in Beijing were more aware of advertisements than before. In a survey conducted in 1988 and 1989, Beijing consumers showed less interest in advertisements than their counterparts in Shanghai and Guangzhou (Yamamoto, 1989). However, data collected from this study showed that 62.2% bought luxury goods and 27.6% bought daily necessities after seeing advertisements.

Consumer Interaction. The data showed that 73.5% of the respondents reported that their relationship with their neighbors was enjoyable and 61.1% reported that they liked having contact with as many people as possible. The positive attitude of Beijing consumers towards "contact with other people" may influence their purchasing behavior. The most common way of acquiring information on products for Beijing consumers may be word of mouth.

Consumer Responses to Large-Scale Shopping Centers. The attitude of Beijing consumers towards a large-scale shopping center being built in their neighborhood is positive. In response to the question "How do you think your

living environment would change if a large-scale shopping center were built near your home? (Or how has it changed if this is already the case?)", a relatively high 59.3% answered "I would be glad (am glad) because shopping would be (is) much more convenient and the surrounding area would become (has become) much more lively." As seen in the multidimensional analysis, this item fell in the "sociable" type. Consumers who would welcome a large-scale shopping center near their home may be people who pursue product information, seek low price goods, and enjoy a modern life-style.

Consumer Possession of Durable Goods. In this study, 51.6% of the respondents answered "I have most necessary electrical products." In the multidimensional analysis, people fell in the information oriented side. The findings imply that these consumers who "buy electrical goods after seeing advertisements", "get on very well with their neighbors", and "like having contact with as many people as possible", also "have most necessary electrical products" at home.

### Consumer Characteristics and Consumer Types

The same analytical approach was employed in several subgroups to classify consumer types. The findings are reported as follows.

Gender. Among the "commercialized" type of consumer, the percentage of men (51.2%) was slightly higher than that of women. By contrast, among the "pragmatic" type, the percentage of men (44.1%) was slightly lower than that of women.

Occupation. White collar workers and blue collar workers turned out to be different in consumer types. For instance, 38.9% of white collar workers were the "commercialized" type, whereas only 13.1% of blue collar workers belonged to this type. However, 82.6% blue collar workers were in the "pragmatic" type.

Education. Although Beijing is a city where intellectuals of China are concentrated, in the survey carried out in 1988 and 1989 (Yamamoto, 1989), the characteristics of consumer behavior of this group were not distinctive. Findings in this study indicated a tendency towards the "commercialized" type among the better educated. For instance, among those with a university degree, the percentage of people who were the "commercialized" type was 43.0%, the highest among the four types.

Age. Young consumers were more likely to be the "commercialized" type. For example, among those aged 25 to 29, 43.7% were in this type, the highest among the four types. In contrast to this, among those aged 40 to 45, 63.6% belonged to the "pragmatic" type.

Income. Although it was predicted that among those with higher incomes, the "commercialized" type would have higher percentages, in fact the results from the multidimensional analyses showed that there was no significant difference among levels of income in terms of consumer types. At all levels of income, the highest percentages were the "pragmatic" type of consumers.

### **Summaries and Implications**

Through correspondence analyses, this study categorized a sample of consumers in Beijing into four types. The findings of this study can be summarized as follows.

(1) The most common type of consumer in this sample is the "pragmatic" who seeks practical aspects of consumer goods and does not care about commercial information. However, there is also a tendency towards the "commercialized" type, since this type has the second highest percentage.

(2) Evidence from this study indicates that consumers in this sample may be more aware of the existence of commercial information than before; use word of mouth to communicate product information to each other; have positive attitudes towards large modern shopping centers; and relate their acquired information to purchase behavior.

(3) Gender, occupation, age, and education result in differences in consumer types. However, income does not show effects on consumer types. Men, white collar workers, the higher educated, and the younger are more likely to be the "commercialized" type.

The findings of this study imply that more consumers may belong to the "commercialized" type in the future, and fewer consumers will be in the "pragmatic" type along with the economic development of China when the age, occupation, and education effects are considered. As discussed before, the "commercialized" type is the product of the new market economy, which is both welcomed and worried about by consumer economists. Consumer economists advise consumers to smartly use commercial information in choosing products that suit their needs. Consumer educators may use different strategies to teach different types of consumers to become competent consumers and reach their optimal economic well being in the increasingly commercialized China.

This study has a couple of limitations. Since the sample is not a strictly random one, the findings are not representative of all consumers in China. While it is remotely possible to conduct a national consumer survey in China, it is possible to repeat the similar surveys in different cities in future. The types defined in this study are only considered rudimentary, and other advanced methodologies should be used to more accurately define consumer types. However, the findings add evidence to describe consumer behavior and its trends in China that enriches the literature. In addition, the findings of this study can be a starting point for future research on the similar topics. Further research is needed by conducting surveys that relate consumer perceptions to consumer behavior in China. International comparison studies, starting with data from Japan and U.S., should also be interesting.

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### Endnotes

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3. Because of the space limitation, survey questions, Table 2, Table 3, and Figure 1 are not presented but they are available from the authors upon requests.