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# Chinese children's perception of personal and commercial communication: An urban-rural comparison

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**An urban rural comparison**

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## **Chinese children's perception of personal and commercial communication:**

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#### Abstract

This study examines how urban and rural children in Mainland China learn about new products and services, and their attitudes toward different communication channels for market and product information. A survey of 1,977 children ages six to thirteen in four Chinese urban cities and four rural provinces was conducted in March 2003 to May 2004. Results indicated that there are significant differences in perception of personal and commercial communication sources among urban and rural children. As predicted by Rogers' (1960) and Schramm's (1977) theories, urban children found commercial sources more useful and credible than rural children in obtaining information about new products and services. Rural children perceived personal sources more useful and credible than urban children. John's (1999) theory of consumer socialization was supported. Older children found parents and grandparents less useful and less credible than younger children. Older children also found commercial sources more useful and credible.

(150 words)

## **Chinese children's perception of personal and commercial communication:**

### **An urban rural comparison**

#### **Introduction**

China, the country with the largest population of children in the world, adopted a Single-Child Policy in 1979 and it is the current rule in urban China (Zhang & Yang, 1992). These only children have a substantial amount of their own money to spend and exert a great influence on their household spending (McNeal & Yeh, 1997). In the year 2004, there were almost 290 million children under age 15 in China with approximately forty percent urban, sixty percent rural (Population Reference Bureau, 2005). Urban population has been increasing from 31 percent in 1995 to 41 percent in 2005 (United Nations, 2005), reflecting a rapid rate of urbanization. Nearly all communication research regarding youth has been conducted among China's urban part of the population while ignoring its counterpart in the rural areas. The study presented here remedies this omission by reporting a study of children's communication behaviors in both urban as well as rural China. Specifically, this paper focuses on urban and rural children's perceptions of the sources of information about new products.

Besides the fact that China's rural geography holds sixty percent of its youth population, there are other important reasons to study this group. First, social and economic reforms are leading to a rapid increase in household incomes and demand for

products and services (Batra, 1997). China's enormous population and growth in consumer demand are resulting in several new market segments with distinctive profiles including its children (Schmitt, 1999). The children have enormous market potential, theoretically more than any other demographic group, since they have their own money to spend, they determine perhaps 67% of their parents' spending, and they have all of their purchases ahead of them (McNeal & Yeh, 1997). Also, it is important to know what information sources they use to guide their marketplace behavior since it will determine their purchases and their purchase requests to their parents. McNeal and Ji (1999) studied the product information sources utilized by urban Chinese children and found that television was a very important source of new product information. A recent qualitative survey indicated that rural Chinese children often learn about new products from school teachers (Chan, McNeal & Chan, 2004). A comparison study of urban and rural children's product information gathering is very important to the understanding of the roles of personal sources and media/commercial sources among children's information seeking behaviors and communication patterns.

## **Literature Review**

### *Rural development and consumption patterns*

Rural China is defined here as the population of 780 million men, women, and children who reside in other than cities and towns classified by the government (State

Statistics Bureau, 2005). Most of the residents of the rural areas are engaged in farming activities.

Since the Open policy was established by Vice Premier Deng Xiaoping in 1979, the Chinese economy has been enjoying rapid growth. Its annual percentage increase in GDP for the period 1979 to 2000 averaged above seven percent. During the initial five years from 1979 to 1984, the growth rates for the agricultural and industrial sectors were similar (Anderson, Huang & Ianchovichina, 2002). During the subsequent period 1985 to 2000, agriculture continued to grow but at only one-third of the pace of industry and about half that of the service sector (Anderson, Huang & Ianchovichina, 2002). Agriculture's share of employment dropped steadily from 69 percent in 1980 to 50 percent in 2000 (State Statistical Bureau, 2002). As a result, there has been a widening gap in income between the urban and the rural. For example, the annual per capita income of urban and rural residence in 1990 was 1510 yuan and 686 yuan respectively. By 2003, the annual per capita income of urban and rural Chinese had both increased substantially to 8472 yuan and 2622 yuan respectively. While per capita income of the rural residences has improved significantly, it still lags behind its urban counterpart. The urban/rural ratio of per capita income increased from 1.9 in 1990 to 3.2 in 2003, indicating a widening gap between economic standings of urban and rural people (China Internet Information Center, 2005).

In addition to the income gap between urban and rural residents, the difference in quality

of education children receive also affects their ability to seek and access information.

Although China phased in the “Nine Year Compulsory Education” plan in 1986, the rural education system suffers from a lot of problems. These include insufficient government and family resource support, poor teaching facilities, a high proportion of unqualified substitute teachers, and a high student-teacher ratio. With the increase in school tuition and miscellaneous charges, rural families that cannot afford the increased costs have had to remove their children from the education system (Wang, 2003). A possible implication of poor education in rural China is that rural children may not seek and access information in an active way. They may rely more heavily on personal sources in obtaining information, including market information.

Lu and Peng (2000) analyzed the rural consumption structure for the period 1978 to 1998 and found that rural residents were spending an increasing percentage of their income on housing, education and recreation services, indicating improvements in living standards. Despite these improvements there is still a large difference in the consumption patterns between urban and rural China. Based on the per capita annual living expenditures in 1999 (State Statistical Bureau, 2001), rural households spent a significantly greater share of income on food items and housing, and a lesser share on clothing and services when compared to their urban counterparts.

Recently, China has been shifting the focus of its proactive fiscal policy from

stimulating investment to strengthening low-income earners' purchasing power. It reflects the government's goal of relying more on domestic consumption in maintaining stable economic growth (Global News Wire, 2003). In the first six months of 2004, consumer retail sales of the nation were 2.53 trillion yuan. The urban residents that represent about forty percent of the population contributed almost two-third of the total retail sales. The remaining sixty percent of the population residing in rural areas contributed one-third of the total retail sales (State Statistical Bureau, 2004). One of the reasons accounting for the relatively low consumer retail sales figure in rural China is the lack of infrastructure.

Some villages do not have tap water and a stable electricity supply and therefore cannot adopt household appliances such as washing machines and refrigerators. Rural China also suffers from a poor retailing and distribution system. The Rural Marketing and Sales Agency, a national distribution network of agricultural and consumer products, has suffered from the problems of low productivity, high deficit, outdated facilities, lack of cash flow, and lack of retail expertise (China Village and Town Enterprise Newspaper, 1999). Some manufacturers have organized their own sales force to market household appliances to farmers directly (Economic Daily, 1999). Some manufacturers have considered rural China as a secondary market and channeled poor quality products to the rural market (Economic Daily, 1999). Research shows that rural consumer markets rely heavily on opinion leaders in brand selection (Economic Daily, 1999).



A recent survey found that adult urban and rural consumers differ significantly in their attitudes toward the entire marketing mix including product price, brand recalls, shopping patterns, and attitudes toward mass media advertising (Sun & Wu, 2004). Urban consumers are more likely to shop at well-known, large-scale stores and stores with quality customer services. Urban consumers are more likely to shop alone. Rural consumers are less product-innovative, less brand-conscious, and more price-conscious. The authors attributed these differences to people's different positions in Maslow's (1970) hierarchy of needs. Urban consumers are more likely to be driven by self-actualization needs than rural consumers.

#### *Urban-rural theories*

Scholars generally assume that rural and urban populations have different cultures. According to Rogers (1960), a pioneer in studying rural populations, urban and rural societies differ in family, group relationships, and values. Rural families are more likely to see children as economic assets. Rural families are more likely to be larger, and have senior members. Rural families are more likely to retain educating, entertaining, religious orientations and protection functions. Neighbors, relatives and kinship groups are more important to the rural population than to the urban population. Rural people are more likely to place value on personal freedom, and are less favorable toward government intervention.

Schramm (1977) proposed a theory about societal development and the parties involved in the communication task. In his framework, informed persons in traditional and modern interpersonal societies take up the role of disseminating knowledge about the environment while news media takes up the role of transmitting knowledge in modern media societies. Similarly, mass media play an important role in socialization of new members in modern society while parents and teachers play an important role in socialization in traditional society.

Given the differences in economic and social development of rural and urban societies, one might assume that communication patterns of urban Chinese children would be different from their rural counterparts. We might expect, also, that urban and rural societies shared different cultures. Hofstede (1994, p.4), defines culture as “collective programming of the mind which distinguishes the members of one group or category of people from those of another.”

#### *Information sources used by children*

The process by which children acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace is termed consumer socialization (Ward, 1974). Children learn consumer behavior patterns from various socializing agents including parents, peers, schools, stores, media, and the products themselves and their packages (Moschis, 1987).

There are two principal interpersonal sources from which children learn about products and their consumption: parents and peers. It has been shown for years in Western nations that the parents are probably most instrumental in teaching young people basic rational aspects of consumption such as understanding price-quality relationships, handling money wisely, and obtaining appropriate information before making purchases (e.g., McNeal, 1987; Ward, Wackman & Wartella, 1977). Evidence suggests that the more often parents or other caretakers take children shopping, the more conscious the children become of information about brands and prices (Shim, Snyder & Gehrt, 1995). A survey of parents in urban China indicated that they did not like television advertising. They perceived advertising to be deceptive and annoying (Chan & McNeal, 2003).

Like parents, peers can directly and indirectly affect children's consumer socialization. Several studies suggest that children learn the symbolic meaning of goods or expressive elements of consumption from their peers at school and at play (Moschis & Churchill, 1978; Moschis & Moore, 1982). Gillette (2000) observed that urban Chinese children frequently consumed snacks in schools and they were keen to share knowledge about new brands available in the market. In addition, peers play an important role in the development of children's preference for stores, products, brands of selected products, media, and television programs. In China the prevalence of the single-child household would seem to give even more than normal regard to peers as playmates, and therefore, as influencers of children's

communication patterns.

Schools as a place for transmission of knowledge might have the potential to disseminate market information. A recent survey reported that teachers in urban cities played a minor role in providing marketplace information. School children seldom consulted teachers to help them decide whether television commercials are telling the truth (Chan & McNeal, 2004a). On the other hand, teachers in rural schools played an active role in informing children about new products. A study of rural children reported that teachers were important information source about products related to studies, including new extra-curricular books and dictionaries (Chan, McNeal & Chan, 2004). Because Chinese people have a strong respect for authority (Bond, 1991), Chinese children, especially those residing in rural areas, may consider teachers authoritative sources of information of any kind, including market information.

There are a number of commercial sources of information about products and their attributes, but two—retailers and media—have been empirically shown to be particularly important. A survey of Beijing children indicated that urban children often accompany their parents to the marketplace and make independent purchases (McNeal & Yeh, 1997).

Advertising media have probably received more attention in the research literature than any other socializing agent (See Moschis, 1987 for a review). Both advertising and editorial/program content of the mass media provide children with

knowledge and guidance in their development in information seeking and processing strategies. McNeal and Ji (1999) found that urban Chinese children utilize a wide variety of information sources to learn about new products including parents, retail outlets, and the mass media, and that they consider television to be the most important. The researchers concluded that a new consumer generation is emerging in urban China that is more exposed to and more open to commercial sources.

### **Hypotheses**

Previous research indicates that children from lower income households use more personal sources of information than institutional sources of information for obtaining market information (e.g., Bearden, Teal & Wright, 1979). As the household income of rural society is generally lower than that of its urban counterpart, there are less mass media reaching rural China, and a resulting reliance on interpersonal information. Based on Schramm's (1977) theory, we hypothesize that

H1: Rural children and urban children have different perception about usefulness of difference sources of information. Specifically,

H1a: Rural children are more likely to find personal sources useful than urban children.

H1b: Urban children are more likely to find commercial sources useful than rural children.

Studies on adults have shown that responses to advertising are more positive in countries with newer advertising industries (Zhao & Shen, 1995). This indicates a novelty

effect, suggesting that consumers are not overwhelmed with commercial messages. As urban children often are exposed to commercial sources of information, they will be more sophisticated and will be more likely to cast doubt on commercial sources. We therefore hypothesize that:

H2: Rural children and urban children have different perception about credibility of difference sources of information. Specifically,

H2a: Rural children are more likely to find personal sources credible than urban children.

H2b: Urban children are less likely to find commercial sources credible than rural children.

According to Rogers' (1960) model, families are more important among rural populations than in urban populations and rural families retain more family functions than urban families. As a result, we hypothesize that

H3: Family is a more important information source about new products and services among rural children than among urban children.

John (1999) proposed a stage developmental model of consumer socialization. Children in the perceptual stage have limited awareness of information sources. Children in the analytical stage have an increased awareness of personal and mass media sources. Children in the reflective stage have contingent use of different information sources depending on the product or situation (John, 1999). As children grow older, they develop a

greater awareness of different information sources and deploy these sources in a more flexible manner (Moore & Stephens 1975; Moschis & Moore 1979; Stephens & Moore 1975; Ward et al. 1977). They also develop preferences for specific information sources (Moore & Stephens 1975). Thus, we hypothesize the following:

H4: Older children find more information sources useful than younger children.

H5: Children of different age have different perceptions about the usefulness of various new product information sources.

H6: Children of different age have different perceptions about the credibility of various new product information sources.

Gender has been an important variable in consumer socialization. Gender differences in aptitude and personality traits often reflect gender roles prevalent in the society (Putrevu, 2001). Gender-role stereotypes about activities engaged by boys and girls often exist among pre-school children (Kuhn, Nash & Bruken, 1978). A study of children in English, Ireland and the US found that the majority of boys and girls agreed that females were soft-hearted whereas males were strong, aggressive and cruel (Best et al., 1977). The Socialization Model suggests that men and women acquire gender roles through interaction with socializing agents. These agents stimulate interest in different products as well as selective use of information sources (Moschis, 1985). We therefore propose the following hypothesis:

H7: Boys and girls have different perceptions about the usefulness and credibility of different information sources.

## **Methodology**

### *Survey Procedures*

Data for the rural sample were collected in March 2003 in the four provinces of Heilongjiang, Hubei, Hunan, and Yunnan. The first three provinces had a similar level of per capita annual net income of national average for rural residents. The last province had about two-thirds of the per capita annual net income for the rural population. A national Chinese market research company was hired to conduct the survey. Questionnaires were administered in classroom settings during normal class periods in twelve elementary schools. The number of students in each school varied from 150 (in Heilongjiang) to 575 (in Yunnan). All the schools were situated in counties with population of less than 131,000. Researchers read out the questions and possible answers for grades 1 and 2 students while older students in grade 3 to 6 filled in the questionnaires by themselves. All aspects of the research procedure were conducted in Chinese (Mandarin).

Data for the urban sample were collected from November 2003 to May 2004 in the four major cities of Beijing, Guangzhou, Nanjing and Shanghai. Beijing, Guangzhou and Shanghai were first-tier cities that together account for half of the



total national advertising expenditure in the country (Hong Kong Trade Development Council, 2001). A convenience sample of four schools was selected, with one from each city. The average size of the school was around 2000 students. Local researchers (University faculty members) were appointed to contact schools. The survey procedure was the same as that for the rural survey. It is not common to seek parental consent for surveys among school children in China. The school principals examine the questionnaire to decide on whether the school will participate in the study. At the beginning of the data collection, researchers announced that the survey was a voluntary one and students could leave the questionnaire blank if they did not want to participate. Researchers also assured them that their responses were anonymous.

### *The questionnaires*

A draft questionnaire in Chinese was constructed for the rural and urban surveys based on previous studies (McNeal & Ji, 1999; Bu, 2001). The questionnaire was tested and revised. The questionnaire consisted of close-ended questions about children's perceived usefulness and creditability of new product information sources along with four demographic questions. Children's perceived usefulness and creditability were measured by having respondents rate the usefulness and creditability for product information of eleven different sources on a four-point scale (1 = not helpful at all, 4 = very helpful; 1 = not trustworthy at all, 4 = very trustworthy). Eleven sources were selected including

parents, grandparents, teachers, friends, televisions, newspapers, shops, magazines, radios, street ads and internet. Respondents could choose “Don’t know” for each question.

### *The sample*

The urban sample consisted of 965 grade 1 to 6 students aged 6 to 13 years. There were nearly equal numbers of boys and girls. The mean age of the respondents was 9.3 years (SD = 2.0 years). Eighty-two percent of the respondents were only children in their families. There was no relationship between sex and whether the respondent was a single-child (Chi-square = 1.4,  $p = 0.1$ ). Eight questionnaires were deemed invalid as over half of the questions were not answered; thus giving a net response rate of 99 percent.

The rural sample consisted of 1,012 grade 1 to 6 students aged 6 to 13 years. There were nearly equal numbers of boys and girls. The mean age of the respondents was 10.0 years (SD=1.9 years). Forty two percent of the respondents were single children in their families. Boys were significantly more likely to be an only child than girls (Chi-square = 28.6,  $p < 0.001$ ). Four questionnaires were deemed invalid because of incomplete answers thus providing a net response rate of 99.6 percent.

### *Data analysis*

Descriptive statistics were compiled to give the perceptions of usefulness and credibility of the overall sample, as well as the urban and rural sub-samples. Factor analysis with varimax rotation was conducted to explore the underlying dimensions of perceived

usefulness and credibility of information sources. As rural respondents were not familiar with internet, the internet medium was excluded in the factor analysis. One-way ANOVA analysis was conducted to examine the urban-rural difference in perceived usefulness and credibility of the information sources. To investigate how perceived usefulness and credibility of information sources are influenced by sex and age, general linear models were tested. The predicting variables were urban/rural residence, sex, age, and their interactions. We treated all predicting variables as categorical data in order to accommodate non-linear as well as linear influences. The predicted variable was the perceived usefulness and perceived credibility for each of the ten information sources. Partial F values were compiled for the main effects as well as the interaction effects. The full factorial model was an additive model of the three main effects and the four interactions including urban/rural\*sex, urban/rural\*age, sex\*age, and urban/rural\*sex\*age.

## **Findings**

### *Descriptive*

Table 1 shows the perceived usefulness of various information sources regarding new products by the urban and rural respondents. Among the eleven information sources, teachers and parents were found most useful. Street ads and radio were found least useful. Internet was found unfamiliar among rural children as a majority of respondents in the rural sample reported that they did not know about the usefulness of the internet.

Factor analysis on perceived usefulness of information sources generated a two-factor solution. The eigen values for the two factors were 3.4 and 2.0. These two factors together explained 55 percent of the total variance of perceptions. The first factor consisted of magazines, newspapers, street ads, radio, shops and television. This factor was labeled commercial sources. The second factor consisted of parents, grandparents, teachers, and friends. It was labeled personal sources.

Factor analysis on perceived credibility of information sources generated a two-factor solution. Results of factor analysis were the same as that for perceived usefulness of information sources. We therefore use the same factor labels that resulted from the first factor analysis.

[TABLE 1 ABOUT HERE]

Table 2 shows the perceived credibility of various information sources regarding new products by urban and rural children. Among the eleven information sources, teachers and parents were found most credible. Street ads and magazines were found least credible. Internet was found unfamiliar among rural children as a majority of respondents in the rural sample reported that they did not know about the credibility of the internet.

Composite scores for commercial sources and personal sources were compiled by taking the mean of the perceived usefulness (and perceived credibility) of the component sources. For example, perceived usefulness of media sources was compiled by taking the

mean values of the perceived usefulness of magazines, newspapers, street ads, radio, shops and television. Internet was excluded in the commercial sources because it was unfamiliar among rural children. Overall, respondents found personal sources more useful ( $t=18.6$ ,  $p<0.001$ ) and more credible ( $t=38$ ,  $p<0.001$ ) than commercial sources.

[TABLE 2 ABOUT HERE]

### **Urban-rural comparison**

Excluding the internet from our analyses, one-way ANOVA analysis indicated that perceived usefulness for all the ten information sources was significantly different among the urban and the rural sample (see Table 1). Also, the perceived usefulness for personal and commercial sources was significantly different among the urban and the rural samples (see Figure 1). Perceived usefulness of parents and shops had the largest F-statistics, indicating the greatest gap in perception of usefulness of these two sources among the urban and the rural sub-samples.

[FIGURE 1 ABOUT HERE]

F-statistic indicated that rural children found all four personal sources more useful than urban children. As a result, H1a was supported.

F-statistic indicated that urban children perceived all seven commercial sources to be more useful than rural children. As a result, H1b was supported.

Table 2 shows the perceived credibility of various information sources regarding new

products by urban and rural children. One-way ANOVA analysis indicated that perceived credibility for nine out of the ten information sources was significantly different among the urban and the rural sub-samples. Perceived credibility of shops had the largest F-statistics, indicating the greatest gap in perception of credibility among the urban and the rural sub-samples.

As shown in Figure 2, rural children found personal sources more credible than urban children. As a result, H2a was supported.

As shown in Figure 2, urban children perceived commercial sources more credible than rural children. As a result, H2b was not supported.

[FIGURE 2 ABOUT HERE]

Tables 1 and 2 show that perceived usefulness and perceived credibility of parents and grandparents as information sources about new products were higher among rural children than among urban children. This indicates that rural families play a more important role in disseminating information about new products than urban families. As a result, H3 was supported.

The results of the prediction of perceived usefulness of information sources using urban/rural residence, sex, and age as predictors are summarized in Table 3. The results of the prediction of perceived credibility of information sources are summarized in Table 4.

For the prediction of perceived usefulness, nine out of ten information sources had significant urban/rural effect. One out of ten information sources had significant sex effect. All ten information sources had significant age effect. Six out of ten information sources had significant urban/rural\*age effect. Overall speaking, perceived usefulness of information sources were influenced mainly by age and by residence of the respondents. In addition to the urban/rural differences reported in the above section, the current study reported differences in perceived usefulness of information sources by age. General speaking, older children were more likely to find friends, television, newspapers, magazines, radio, shops, and street advertisements useful than young children. Younger children were more likely to find parents and grandparents useful than older children. Children of different ages therefore have different perceptions about the usefulness of all ten information sources. As a result, H5 was supported.

[TABLE 3 ABOUT HERE]

For the prediction of perceived credibility, nine out of ten information sources had significant urban/rural effect. Three out of ten information sources had significant sex effect. Eight information sources had significant age effect. Four out of ten information sources had significant urban/rural\*age effect. One information source had significant sex\*age effect. One had significant urban/rural\*sex effect and one had

urban/rural\*sex\*age effect. Overall, perceived credibility of information sources was influenced mainly by age and by residence of the respondents. In addition to the urban/rural differences, the current study reported differences in perceived credibility of information sources by age. General speaking, older children were more likely to find television, newspapers, magazines, radio, shops, and street advertisements credible than younger children. Younger children were more likely to find parents and grandparents credible than older children. Children of different age have different perceptions about the credibility of eight out of ten information sources. As a result, H6 was partly supported.

For the influence of sex on perceived usefulness, only one out of ten information sources had significant effect. Girls were more likely to perceived parents as useful information source than boys. For the influence of sex on perceived credibility, three out of ten information sources had significant effect. Girls were more likely to perceived parents as a credible information source than boys. Boys were more likely to perceived television and street ads as credible information sources than girls. Overall, the sex variable had some impact on perceived usefulness of one information source and credibility of three information sources. As a result, H7 was partly supported.

[TABLE 4 ABOUT HERE]



To test H4, we counted the number of information sources that respondents reported helpful or very helpful. Again, a full factorial model was conducted to test the influence of urban/rural residence, sex, age and their interactions on the number of useful information sources. The result is displayed in the last row of Table 3. It was found that rural respondents found more information sources useful than urban respondents. Also, older children found more information sources useful than younger children. As a result, H4 was supported.

#### *Interaction between predicting variables*

Among the twenty general linear models, significant interaction between predicting variables occurred thirteen times. The interaction between urban/rural residence and age occurred ten times. The interaction between urban/rural residence and sex, interaction between sex and age, and three way interactions between urban/rural residence and age and sex each occurred once. To examine the patterns of interaction, we plotted all the estimated marginal means by the predicting variables. We found that these thirteen graphs did not show a consistent pattern. We show two of them in Figure 3 and Figure 4. In Figure 3, perceived usefulness of friends as information sources for new products generally increased with age for urban respondents while their perceived usefulness generally decreased with age for rural respondents. In Figure 4, perceived usefulness of television as an information source for new products dropped significantly around age 9

for urban respondents while perceived usefulness generally increased with age for rural respondents. We therefore cannot draw any conclusive pattern about how the urban/rural residence variable interacts with age to have impact on respondents' perceived usefulness and credibility of various sources regarding new product information.

[FIGURES 3 AND 4 ABOUT HERE]

### **Discussion and Conclusions**

The study reported here represents a first attempt at ascertaining a comparison of communication patterns of urban and rural youth in China. It specifically demonstrates the use of personal and commercial communication by 1,977 Chinese children ages 6-13 in four major urban cities and four rural areas. Generally speaking, respondents found personal communication more useful and credible in getting new product information than commercial communication. This echoes the importance of personal sources over the importance of mass media found among U.S. teens (LaFerle, Edwards & Lee, 2000). The study also underlines the importance to rural children of personal information sources (parents and teachers) showing them to be significantly more useful and more credible than commercial sources to the children. The result echoes previous findings that traditional Chinese families rely heavily on word of mouth to learn about new products and much less on mass media (Sun & Wu, 2004; Yau, 1994). Results suggest also that rural children rely more heavily on authority figures for information. While urban Chinese

children generally have changed to rely on commercial sources to obtain new product information, their rural counterparts still rely heavily on personal sources for new product information. This shows that in the rural society the families retain a lot of their traditional function of providing education and information. Urban children found mass media and commercial sources more useful and credible than rural children. Our data therefore supports Rogers' (1960) rural theory and Schramm's (1977) theory on societal development and communication tasks.

Contrary to what we expected, urban children were more likely to find commercial sources credible than rural children. It suggests that urban children, even situated in a rich communication environment, are not overwhelmed with commercial messages. Instead, they are more open to mass media as a resource. It supports previous literature that explains how people develop and use persuasion knowledge to cope with persuasive intent (Friestad & Wright, 1994).

One surprising result was the perceived importance of teachers in the provision of new product information. Teachers were found to play a major role in providing commercial information to rural children over urban children. Examination of the interaction shows that older children in urban cities consider teachers less useful in providing commercial information than younger urban children. But perceived usefulness of teachers as information sources for new products remained unchanged with age for

rural children. It suggests that teachers as authoritative figures in the dissemination of commercial information are unchallenged among rural children. Older urban children however see the limitation of teachers in providing commercial information. In any case, there is a reverence for the school teacher shown here and a suggestion to marketers that they may wish to attempt marketing efforts in schools where permitted as they do in the west in order to capitalize on the credibility of the school environment.

Most of the rural children we surveyed did not find commercial sources useful or credible in introducing new products and services. Although rural Chinese children watch the same television programs (and commercials) as their urban counterparts, they do not find television as useful and credible as urban children perceive. This is probably because television programming and advertising seldom portray lives in the rural society. A case study of a popular television cartoon series in China indicated that most of the featured consumption experiences were in an urban context (Xia, Chan & Chan, 2004). It may also reflect that the retail shops in rural areas and mass media in general do not target at the rural children population. A visit to a rural village in Chengdu by one of the authors in 2003 found that most of the street ads were selling medicines and agricultural insecticides. There were very few outdoor advertisements for personal and household consumer goods.

The difference in use of personal and commercial communication among urban and rural Chinese children may reflect their access to media and competency in information

gathering. The heavy reliance on personal communication may be a hindrance for rural children to obtain prompt and reliable information about health and social development issues from the mass media. The implication is that there is a need to use opinion leaders to help communicate these issues to rural children.

Using multivariate analysis the current study found that Chinese children's age has effect on their perceptions about usefulness and credibility of new product information sources. General speaking older children found personal sources less useful and less credible than younger children. In particular, older children became less satisfied with grandparents, with the largest drop in perceived usefulness and credibility. This is probably due to the incapability of grandparents to catch up with updated market trends. We speculate that older children, compared to the younger, are more likely to see the differences in consumption values between themselves and their older generations and therefore consider grandparents less credible. Further research is needed to prove or disprove this. General speaking, older children perceive commercial sources more useful and more credible than younger children. Perhaps older children are more active in the market place and there is a higher need to seek and process market information. If older children do not find personal sources helpful in satisfying their information needs, they are more likely to turn to commercial sources.

In the Western research literature, developmental models often show children develop

in consumer skills in a linear fashion, applying to children regardless of their sex, race or social class (John, 1999; Piaget, 1970). The current study found that in most prediction models, the interaction of urban/rural residence and age has significant impact. This indicates that children's development in consumer socialization depends not only on the age, but also depends on the environment. It echoes a similar finding among Chinese urban children that the understanding of advertising intent depends on age as well as the advertising development of the city (Chan & McNeal, 2004b). Further research is needed to investigate the developing of children as consumers in urban and rural settings.

To conclude, among urban children, television, parents and friends are perceived to be most useful information sources for new product information. Also, parents, teachers and grandparents are perceived to be most credible information sources for urban children. Teachers, parents and friends are perceived to be the most useful information sources among the rural children. Teachers, parents and grandparents are perceived to be the most credible sources among the rural children. The data provide evidence to urban-rural theories proposed by Rogers (1960) and Schramm (1977). Family and personal communication play an important role in information dissemination and socialization in rural China. John's (1999) model of consumer socialization was partly supported for the prediction of children's perception of usefulness and credibility of new product information sources. Older children find parents and grandparents less useful and less

credible than younger children. Older Chinese children find commercial sources more useful and credible than younger children. There is also evidence that consumer socialization depends on age as well as the environment in which children grow up.

(6040 words for body text)

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Table 1. Perceived usefulness of various sources for new product information

Source	Urban		Rural		Overall		F-stat.
	N	Mean (S.D.)	N	Mean (S.D.)	N	Mean (S.D.)	
<b>Personal sources</b>	<b>892</b>	<b>2.3 (0.8)</b>	<b>1008</b>	<b>2.7 (0.6)</b>	<b>1900</b>	<b>2.5 (0.7)</b>	<b>1</b> *
							<b>36.5**</b>
Teachers	717	2.3 (1.1)	1008	3.0 (0.9)	1725	2.7 (1.1)	2 *
							39.8**
Parents	801	2.5 (1.0)	1008	2.9 (1.0)	1809	2.7 (1.0)	8 *
							7.2**
Friends	808	2.5 (1.0)	1007	2.6 (0.8)	1815	2.6 (0.9)	5. *
							1 **
Grandparents	675	1.9 (1.0)	985	2.3 (1.0)	1660	2.2 (1.0)	6 *
							6.1**
<b>Commercial sources †</b>	<b>928</b>	<b>2.3 (0.8)</b>	<b>1002</b>	<b>1.9 (0.6)</b>	<b>1930</b>	<b>2.1 (0.7)</b>	<b>1</b> *
							<b>37.9**</b>
Television	857	2.7 (1.0)	987	2.4 (1.0)	1844	2.5 (1.0)	4 *
							1.8**
Newspapers	772	2.4 (1.0)	857	2.1 (0.9)	1629	2.3 (1.0)	4 *
							5.0**
Shops	774	2.4 (1.0)	895	1.9 (0.9)	1669	2.2 (1.0)	9 *
							8.9**

Internet	624	2.3 (1.2)	284	1.8 (1.0)	908	2.1 (1.1)	4	*
							3.1**	
Magazines	718	2.2 (1.0)	773	1.8 (0.8)	1491	2.0 (1.0)	8	*
							0.0**	
Radio	705	2.0 (1.0)	838	1.8 (0.8)	1543	2.0 (0.9)	1	*
							7.5**	
Street ads	732	2.0 (1.0)	809	1.7 (0.8)	1541	2.0 (0.8)	2	*
							7.2**	

# Respondents checking “don’t know” are excluded

† Exclude internet

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

Table 2. Perceived credibility of various sources for new product information

Source	Urban		Rural		Overall		F-stat.
	N	Mean (S.D.)	N	Mean (S.D.)	N	Mean (S.D.)	
<b>Personal sources</b>	<b>901</b>	<b>2.8 (0.8)</b>	<b>1004</b>	<b>2.9 (0.6)</b>	<b>1905</b>	<b>2.8 (0.7)</b>	<b>23.5</b> *
Teachers	720	3.0 (0.9)	993	3.2 (0.7)	1713	3.1 (0.8)	38.8 **
Parents	811	3.0 (0.9)	997	3.1 (0.8)	1808	3.0 (0.8)	14.9 **
Grandparents	695	2.7 (1.0)	955	2.8 (0.9)	1650	2.7 (0.9)	9.7 *
Friends	789	2.6 (0.9)	991	2.5 (0.8)	1780	2.5 (0.9)	1.9
<b>Commercial sources†</b>	<b>905</b>	<b>2.2 (0.7)</b>	<b>991</b>	<b>2.0 (0.7)</b>	<b>1896</b>	<b>2.1 (0.7)</b>	<b>54.5</b> **
Internet	624	2.4 (1.1)	293	2.1 (1.0)	917	2.3 (1.1)	17.3 **
Television	823	2.3 (1.0)	973	2.2 (0.9)	1796	2.2 (0.9)	12.5 **
Newspapers	770	2.3 (1.0)	843	2.2 (0.9)	1613	2.2 (0.9)	8.6 *
Shops	774	2.3 (1.0)	876	1.9 (0.8)	1650	2.1 (0.9)	61. *

							9 **	
Radio	695	2.2 (0.9)	808	2.0 (0.8)	1503	2.1 (0.9)	7.2 *	*
Magazines	702	2.2 (0.9)	734	1.9 (0.8)	1436	2.1 (0.9)	48.1 **	*
Street ads	756	1.9 (0.9)	795	1.8 (0.7)	1551	1.8 (0.8)	2.3	

# Respondents checking “don’t know” are excluded

† Exclude internet

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

Table 3. General linear model in predicting perceived usefulness of information sources

	Significance of main effect			Full model		Significant interaction
	Urban/r ural	Sex	Age	Significa nce	Adjusted R square (%)	
<b>Personal sources</b>	<b>0.000</b>	<b>n.s.</b>	<b>&lt;0.01</b>	<b>0.000</b>	<b>9.6</b>	<b>urban/rural*age (&lt;0.001)</b>
Teachers	0.000	n.s.	<0.05	0.000	13.4	urban/rural*age (<0.05)
Parents	0.000	<0.05	0.001	0.000	7.5	urban/rural*age (<0.05)
Friends	n.s.	n.s.	0.000	0.000	4.2	urban/rural*age (<0.001)
Grandparents	0.000	n.s.	0.000	0.000	10.7	urban/rural*age (<0.01)
<b>Commercial sources<sup>†</sup></b>	<b>0.000</b>	<b>n.s.</b>	<b>0.000</b>	<b>0.000</b>	<b>12.4</b>	<b>urban/rural*age (&lt;0.001)</b>
Television	0.000	n.s.	0.000	0.000	6.9	urban/rural*age (<0.001)
Newspapers	0.000	n.s.	<0.05	0.000	7.7	nil
Shops	0.000	n.s.	0.000	0.000	9.0	urban/rural*age (<0.01)
Magazines	0.000	n.s.	0.000	0.000	9.8	nil
Radio	0.000	n.s.	0.001	0.000	2.3	nil
Street ads	0.000	n.s.	0.000	0.000	4.5	nil
No. of useful sources	0.000	n.s.	0.001	0.000	2.8	nil



† Exclude Internet

Table 4. General linear model in predicting perceived credibility of information sources

	Significance of main effect			Full model		Significant interaction
	Urban/r ural	Sex	Age	Significa nce	Adjusted R Square (%)	
<b>Personal sources</b>	<b>0.000</b>	<b>n. s.</b>	<b>0.005</b>	<b>0.000</b>	<b>3.0</b>	<b>urban/rural*age (&lt;0.01)</b>
Teachers	0.000	n.s.	n.s.	0.000	2.7	nil
Parents	0.000	<0.0 5	0.001	0.000	7.5	urban/rural*age (<0.05)
Friends	n.s.	n.s.	n.s.	<0.01	1.4	urban/rural*age (<0.001)
Grandparents	0.001	n.s.	0.000	0.000	4.4	urban/rural*age (<0.01), sex*age (<0.05)
<b>Commercial sources†</b>	<b>0.000</b>	<b>&lt;0.0 1</b>	<b>0.000</b>	<b>0.000</b>	<b>5.7</b>	<b>nil</b>
Television	<0.05	<0.0 5	0.000	0.000	2.6	nil
Newspapers	<0.05	n.s.	<0.05	<0.01	1.5	urban/rural*sex (<0.05)
Shops	0.000	n.s.	0.001	0.000	4.9	nil

Magazines	0.000	n.s.	<0.01	0.000	4.8	urban/rural*sex*age (<0.05)
Radio	<0.01	n.s.	<0.01	0.000	2.5	urban/rural*age (<0.05)
Street ads	<0.01	<0.0	<0.01	<0.05	1.1	nil
		5				

† Exclude Internet

Figure 1: Perceived usefulness

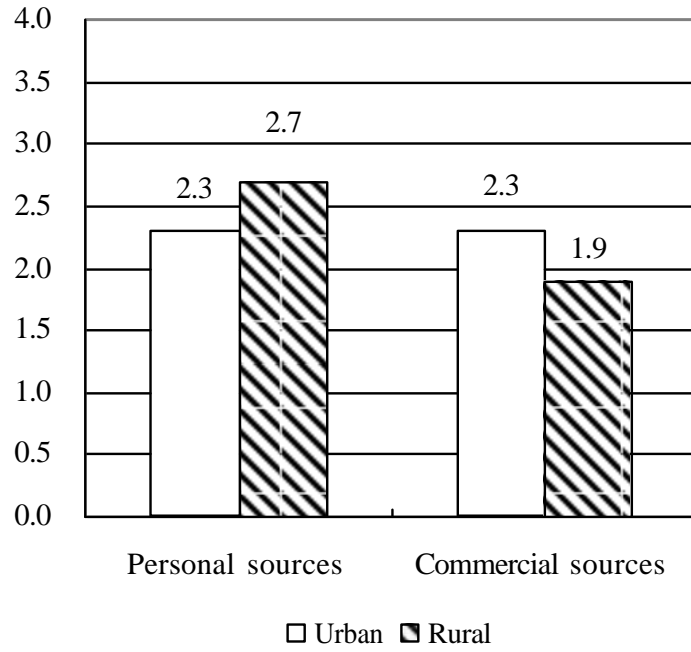


Figure 2: Perceived credibility

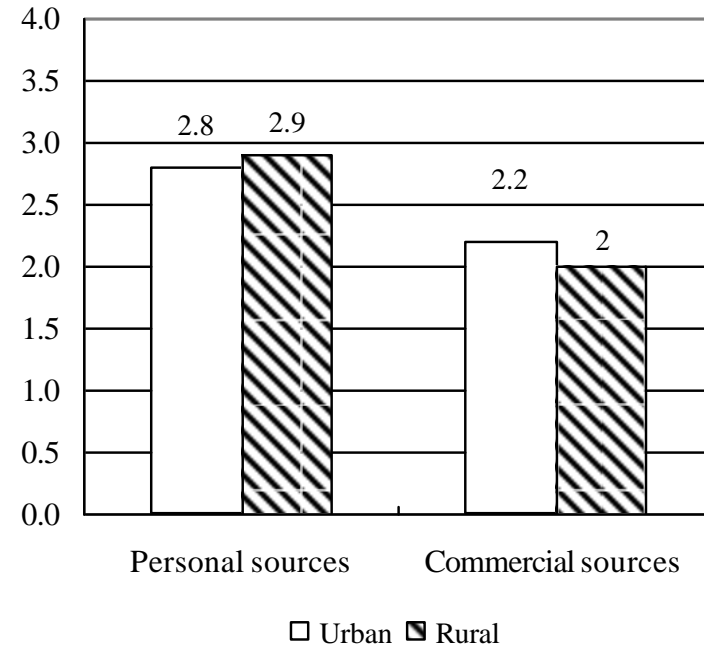


Figure 3. Estimated marginal means of perceived usefulness of friends

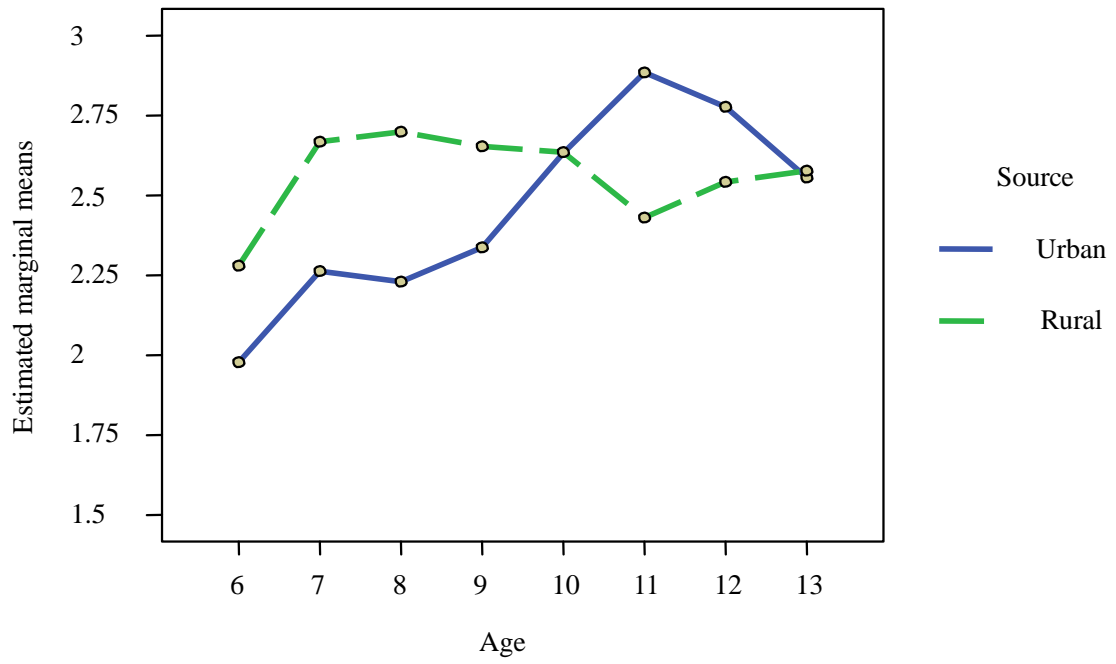


Figure 4. Estimated marginal means of perceived usefulness of TV

