

Consumers' Environmental Perceptions of Children's Furniture in China

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Abstract

China's rapid economic development has improved people's living standards and has thus raised people's health awareness and environmental consciousness. Today, more and more Chinese parents have realized the growing importance of healthy and eco-friendly products for children's growth. In the past 10 years, the Chinese children's furniture market has developed rapidly, making up 9 percent of the entire furniture market in China in 2011. Because of a lack of research on the analysis of consumers' environmental perceptions of children's furniture in China, a survey in two coastal metropolitan cities of China (Shanghai and Shenzhen) was conducted at the turn of 2012 to 2013. Results indicate that 83 percent of 299 valid respondents chose solid wood as their preferred raw material for children's furniture. From the Chinese consumers' perspective, eco-friendly furniture contains the following key attributes: natural, nonpoisonous, and scentless material; adoption of environmental certification; and verification of legal origin of wood. Furthermore, there is some evidence on the linkage between consumers' lifestyle of health and sustainability and sex (females), location (Shanghai), and income (higher income). Although Chinese consumers still have low brand awareness and their price expectations on solid wood furniture are below current market prices, the market for children's furniture presents a growing high-end segment with business potential for both furniture producers and wood raw material suppliers.

China's rapid economic growth has increased people's disposable income, resulting in a huge increase in the number of affluent middle-class consumers. In 2008, the number of urban affluent households (whose annual income exceeded RMB 250,000, i.e., US\$35,997) reached 1.6 million, making China the world's fourth-largest country in terms of its number of affluent households after the United States, Japan, and the United Kingdom (Atsmon et al. 2009). Today, China has become the world's third-largest consumer market for luxury goods. In spite of the worldwide economic downturn in 2008, China's high-end retail demand growth has shown a strong upward momentum (Euromonitor International 2014). With a growing public health and environmental concern, there have been some profound changes in consumer lifestyle associated with increasing consciousness of a healthy and sustainable lifestyle in China (e.g., Dagevos et al. 2011, Sheng and Mar 2013, Deng 2014).

Despite some studies on the role of a sustainable lifestyle and the environmentally conscious consumerism in the fields of body mass and high-involvement products (referring to the products for which the buyer is willing to spend considerable time and effort in evaluating and

purchasing; see Dahlen et al. 2009, Rajasekhar and Makesh 2013), such as organic food (e.g., Dagevos et al. 2011, Sirieix et al. 2011), there is a lack of research on the analysis of consumers' environmental perceptions of other important high-involvement products, such as children's furniture, in China. The present study aims to fill this gap by using a consumer survey of children's furniture to address the following two research questions: (1) What are Chinese consumers' perceptions of the key attributes of eco-friendly furniture and the lifestyles of health and sustainability (LOHAS)? (2) Is there scope for market segmentation based on the association between consumers' LOHAS lifestyle orientation and their demographic characteristics?

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Market for Children's Furniture in China

As the focus of the family, children's growth is of great concern to many Chinese families, putting weight on the importance of healthy and eco-friendly products for children's growth. As one of the high-involvement products, the children's furniture industry started in the late 1990s in China (Baidu Wenku [BW] 2012). However, owing to people's improved quality of life, in the past 10 years the Chinese children's furniture market has developed rapidly, making up 9 percent of the entire furniture market in China in 2011 (BW 2012). Today, the children's furniture sector has become an independent furniture category in China and is regarded as a potential "gold mine" by some industry experts (Smart Kids Furniture Co. Ltd. 2009).

So far, there are about 200 children's furniture enterprises, but there is a lack of well-known domestic brands. Foreign brands of children's furniture occupy 30 percent of the domestic market. The remaining 70 percent of the market share consists of 30 percent domestic brands, and the rest are nonbranded products with ineffective competitiveness (Luo 2012). At present, there are four major well-known brands (including both foreign and domestic brands) of wooden children's furniture in China: FLEXA, Comagic, Sampo, and X.M.B. (Beijing Evening News [BEN] 2011). These four brands have some characteristics in common. First, the raw material used for producing children's furniture by these four companies is pine imported from Russia, New Zealand, Finland, and Brazil, respectively (SouFun Holdings Ltd. 2011). Second, each firm has its own production technology to create green and healthy products for children, and they all hold certain certificates to ensure the quality and safety of products. This finding is based on research conducted in 2011 (BW 2011). Other findings of this research indicate that in terms of raw material, quality, and environmental friendliness, FLEXA and Comagic were the most suitable brands for children, while Comagic seemed to be more competitive, as it possessed more advantages in design and price, which were favored by most parents.

However, most domestic children's furniture is considered middle- and low-end because it is associated with designs based on simple imitation with a lack of originality, resulting from the fact that most domestic firms do not have design teams owing to an appreciable shortage of qualified furniture design professionals in China (Fan and Zhao 2011). Nevertheless, Chinese manufacturers are still reluctant to purchase copyrights to foreign designs or to employ foreign designers because of high costs (International Trade Center/International Tropical Timber Organization [ITC/ITTO] 2005). According to the Italy Trade Commission (2011), original equipment manufacturer orders accounted for more than 80 percent of China's furniture exports. Because of the lack of production and inspection standards in the children's furniture sector, China started to develop the General Technical Requirements for children's furniture in August 2012. By clarifying limits on toxic and harmful substances contained in children's furniture and specifying design safety measures, this new national standard indicates that safety (in terms of both design and health) and environmental friendliness are the basic requirements for furniture designed for children up to 14 years old (BEN 2014). Focusing on safety and environmental issues, this standard lays down the structural requirements for child-

ren's furniture by, for example, stipulating products not to have edges or pointed parts that may pose safety risks to the user. The standard also limits the content of hazardous substances in children's furniture and specifies the flame-retardant performance of these products. Therefore, children's furniture made of pine wood has increasingly become preferred by consumers, and children's furniture is one of the hot sellers in the solid wood sector (Shenzhen Furniture Association 2013, HKTDC Research 2014).

Literature Review

The furniture industry has relied heavily on wood and wood-based materials throughout history (Shelly 2001). Wood has been found to be the overwhelming choice of customers, who often identify the most important attributes of reliability, environmental friendliness, pleasing appearance, and good value (Pakarinen 1999). Of these attributes, environmental aspects of furniture rely heavily on the raw materials adopted (ITC/ITTO 2005), and environmental certification has been used as one of the indicators to identify consumers' understanding of eco-friendly wood products (e.g., Parikka-Alhola 2008).

In recent years, environmental issues have increasingly become relevant to the selection of wood products (e.g., Toivonen 2012), and environmental characteristics have been much highlighted in the case of wood products (Roos and Nyruud 2008, Li and Toppinen 2011). According to Toivonen (2012), the environmental quality of products has become more important and integrated into corporate strategic decision making. Also, Roos and Nyruud (2008) and Holopainen et al. (2014) have found that high environmental quality is a strength for wood products and has an important impact on consumers' preferences for wood products in the European context. The benefits of improved environmental quality for producers may include greater customer loyalty, lower price sensitivity, and even the accrual of positive price premiums (Green and Pelozo 2011).

On the other hand, understanding the role of consumer lifestyles provides a way to understand consumer needs and wants. Drawing from Dagevos et al. (2011), sociological theorizing points out that lifestyle is based on the relationship with the means of consumption, and thus lifestyle lies at the heart of consumerism. Driven by people's rising health awareness and intensified environmental consciousness, a postmodern lifestyle called LOHAS was derived. LOHAS is an environmental sustainability-oriented lifestyle (Axsen et al. 2012) and was originally based on the "Cultural Creatives" label developed by sociologist Paul Ray in the mid-1990s. Ray (1997) terms "Cultural Creatives" as a group of individuals who desire to live their lives with sustainability, health, and social justice; thus LOHAS refers to an integrated, rapidly growing market segment that is focused on environment, healthy lifestyle, sustainable living, and social justice, incorporating businesses and consumers alike. LOHAS actually indicates the emergence of a global trend based on a conscious choice in a wide range of industries in which sustainable products are positioned to communicate the socioecological value added as an integral part of product quality (Belz and Peattie 2012). LOHAS consumers not only demand pro-environmental product choices for their own benefits but also realize the impact of their consumption on the environment, acting as advocates of green products and pushing

environmentally friendly products into the mainstream market (Ernst & Young 2008, Belz and Peattie 2012). However, only a few previous product-specific studies have used LOHAS as an accepted postmodern lifestyle, such as those of Plunkett (2010) and French and Rogers (2006). Thus, it is of interest to analyze whether LOHAS orientation also exists in the context of this specific market in China and whether this lifestyle orientation is also related to consumers' sociodemographic background.

The recent studies on LOHAS (Rácz and Horváth 2011) show growing markets for sustainable products and services, especially in developed countries such as Australia, Germany, France, Italy, Japan, and the United States. Currently, about 20 percent of the population in these countries is willing to pay a premium for sustainable products and services, such as organic food products, energy-efficient appliances, green energy, green buildings, and eco-furniture (Belz and Peattie 2012). With the emergence of a wealthy middle class in the context of the accelerating development of China as the world's largest consumer society (Dagevos et al. 2011), the concept of LOHAS has been gradually entering consumers' lives, and there is likely a growing LOHAS consumer group in China, reflecting a rapid rise in demand for green food, organic food, green building, eco-labeling, etc. This trend has been shown in research conducted in recent years by, for example, Paull (2008) and Dagevos et al. (2011). This gives impetus to our study, in which we aimed to examine the presence of the LOHAS lifestyle from the perspective of the children's furniture market.

Data and Methods

Data collection

In order to explore Chinese consumers' environmental perceptions of children's furniture, a survey was designed and implemented. A quantitative, nonrandom convenience sample was used for data collection, and some furniture retail stores and other convenient places were chosen to meet the target group of consumers. The data were collected through a structured questionnaire from 320 consumers 20 to 60 years of age in two metropolitan cities of China (Shanghai and Shenzhen) from December 2012 to January 2013. Of the total 320 returned questionnaires, 21 were rejected owing to incomplete responses, resulting in 299 valid questionnaires. The reason for focusing on these two cities is that Shanghai is the center for furniture manufacturing and distribution in East China (Cao et al. 2004), while Shenzhen is one of the special economic zones located in Guangdong Province in South China, which is China's largest furniture manufacturing base (Li & Fung Research Centre 2011). Both cities are regarded as the top target markets in China for high-end products because of their heavy concentration of middle-class consumers (Cao et al. 2004) who could therefore provide insights in this special case of children's furniture.

More specifically, the survey was conducted in furniture chain stores, such as IKEA; large furniture centers, such as Block & Quayle (a British multinational do-it-yourself and home improvement retailing company) and Red Star Macalline (the largest national furniture mall chain in China); and furniture malls, such as Shenzhen Xiangjiang Home Furnishing European city. Exit surveys were carried out face-to-face with consumers when they were leaving

stores. In order to ensure a broad cross section of consumers for this study, the survey was also carried out in other places, such as kindergartens, primary schools, children's art schools, shopping malls, amusement parks, residence zones, and cinemas. The consumers were intercepted when they were playing with or waiting for their children.

The questionnaire is structured (see Appendix 1), consisting of two parts and containing only closed-ended questions. The first part aims to explore consumers' perceptions of children's furniture, including preferred raw material, acceptable price, information channels, brand awareness, environmental awareness, etc. The second part aims to obtain the background information of respondents, including sex, age, marital status, occupation, education, income, and statements related to the LOHAS lifestyle. Four types of questions are included in the questionnaire: dichotomous, multiple choice, rating scale (Likert-type scales), and rank order. All measurements are subjective assessments by the respondents using either a 5-point Likert scale or other response formats, depending on the type of questions.

Convenience sampling is also known as availability or accidental sampling. This type of sampling involves the researcher selecting the most readily available respondents, regardless of characteristics, until the required sample size has been achieved (Tansey 2007). The main advantage of this sampling method lies in its convenience; that is, it is convenient for the researcher to access the survey sites and the participants (Fraenkel and Wallen 2006). In addition, choosing this sampling method is fast, easy, and cost effective. Because the disadvantage of convenience sampling is the possibility of the researcher being biased in selecting the site and the participants, such samples may not be representative of the population under study (Trochim 2001, Fraenkel and Wallen 2006).

Data analysis

First, descriptive statistics were applied to describing the respondents' background information (i.e., demographic characteristics) and to examine their perceptions of key attributes of eco-friendly children's furniture based on a 5-point Likert scale. Then, features of the LOHAS lifestyle were mapped using five statements derived from earlier research and the LOHAS Web site (www.lohas.com) that focused on the cost of eco-friendly products, health and sustainability goal setting of the family, importance of using eco-friendly products for children's healthy growth, and perceived consumer effectiveness in our case. Finally, one-way analysis of variance (ANOVA) was used to test the relationships between the respondents' demographic variables (including location, sex, age, income, and education) and the summative LOHAS variable regarding healthy and sustainable lifestyle.

Validity and reliability

In order to ensure the validity and reliability of results of the study, several aspects were taken into account in different phases of the study. First, the research instrument (i.e., questionnaire) used in this study was based on some prior qualitative and quantitative research (such as the measurement scale in Toivonen 2012) and also a review of the literature. The questionnaire was pretested with some consumers who bought or intended to buy children's

furniture and modified where considered necessary. Second, to avoid possible problems caused by language barriers and to ensure the acquisition of accurate information, the entire data collection was implemented in Chinese, which was the native language of the interviewer and participants but was translated into English afterward. Third, to motivate participants to fill out the questionnaire, help them fully understand questions, and boost response rates, each participant was provided with a small gift (a chocolate bar or a pair of children's socks).

Results

Demographic characteristics of the sample

Of the 299 valid respondents, 146 were from Shanghai and 153 from Shenzhen. The data revealed that women accounted for 67 percent of the respondents and men for the remaining 33 percent. Since 63 percent of the respondents were 31 to 40 years old and 23 percent were 20 to 30 years old, the data set represents a fairly young urban population. The education level of the respondents was quite high, comprising 71 percent college/university undergraduates, 17 percent high school/vocational school diploma holders, and 9 percent university graduates or above. Regarding occupation, 60 percent of the respondents were company employees and 11 percent were entrepreneurs, and the remaining included government employees, teachers, blue-collar workers, housewives, and very few unemployed persons. In contrast, consumers' monthly income was distributed quite uniformly, with 34 percent less than RMB 10,000 (US\$1,584), 35 percent in the range of RMB 10,000 to 20,000 (US\$1,584 to US\$3,168), and 31 percent over RMB 20,000 (US\$3,168), thus representing the middle- to higher-income target consumers in urban China.

The data also revealed that more than 80 and 78 percent of the respondents' homes had children's rooms and children's furniture, respectively. In addition, the majority of the respondents (55%) said that they were likely to buy children's furniture when their children were between 3 and 7 years old. This is congruent with a recent survey report showing that the parents with children between 3 and 10 years old were the most likely to be concerned about buying children's furniture, so they are regarded as the main consumers of children's furniture (BW 2010). As a matter of fact, the population in this age group is accelerating every year.

Concerning the raw material of furniture, 83 percent of the respondents stated that they would choose solid wood as their preferred material for children's furniture. However, there was an indication that Chinese consumers' price expectations on solid wood furniture were below the current market levels, as 78 percent of the respondents wanted to spend less than RMB 10,000 (US\$1,584) when buying a set of children's furniture, but the market price of such furniture is at least RMB 10,000 (US\$1,584). Moreover, Chinese consumers had low brand awareness in the children's furniture market because only a small proportion of the respondents (7.8% in Shenzhen and 28% in Shanghai) showed attentiveness to domestic brands, and some of them did not even recall any brand names.

As consumers are susceptible to the influence of reference groups in their buying decisions, their importance ranking in terms of family, relatives, friends, and social media was investigated. Apart from consumers themselves, their

spouses (accounting for 60%) played the most significant role in affecting buying decisions, followed by their children and children's grandparents. Among other reference groups, social media (e.g., Furniture Forum and IKEA Community) surpassed relatives and friends in occupying a place in consumers' minds. With regard to the information channels used by consumers for children's furniture, the choice of furniture stores exceeded other options substantially, making up 61 percent of the respondents. Such a high proportion is consistent with a study conducted by Erasmus et al. (2002), who found that consumers depended mainly on the in-store environment to acquire all the relevant product information they need. This information channel is followed by Internet searching.

Chinese consumers' perceptions of eco-friendliness of children's furniture

To investigate consumers' attitudes toward the environmental aspects of children's furniture, the respondents were asked to rate the nine given attributes of eco-friendly furniture based on the 5-point scale (ranging from "totally agree," "partly agree," "neutral," "partly disagree," to "totally disagree"). As can be seen in Figure 1, nonpoisonous material was valued as the most important attribute of eco-friendly furniture among the respondents, followed by scentless material, natural material, adoption of environmental certification, and verification of legal origin of wood. In contrast, being a famous producer and prohibition of the use of child labor were the least valued attributes of eco-friendly furniture.

Chinese consumers' perceptions of the LOHAS lifestyle and impacts of their demographic characteristics on the LOHAS lifestyle orientation

Because the choice of eco-friendly products is closely connected to consumers' lifestyle of health and sustainability, consumers' attitudes to the LOHAS lifestyle were investigated. Figure 2 illustrates that the majority of the respondents expressed some features of the LOHAS lifestyle as their primary family goal. Of the five statements, the ones concerning healthy lifestyle, sustainable lifestyle, and the importance of using eco-friendly products for children's healthy growth were ranked as the three most important statements. This indicates a growing emergence of the LOHAS consumer segment in Shanghai and Shenzhen. In addition, over 65 percent of the respondents claimed that choosing eco-friendly products would not limit their lifestyle, and over 70 percent of them realized higher costs associated with eco-friendly products, indicating that most of the respondents were aware that favoring eco-friendly products would cost them more.

To investigate the association of the background variables with the summative variable measuring the LOHAS lifestyle orientation, an *F* test for the equality of means in ANOVA was performed for descriptive purposes. According to the results shown in Table 1, a significant association ($P < 0.05$) was found between the respondents' LOHAS lifestyle orientation and their location, age, and income. In particular, the oldest age group (51 to 60 years old) and the group of people aged 31 to 40 years were found to associate with the LOHAS lifestyle orientation. In addition, as seen in the figures in Appendix 2, female respondents were found to

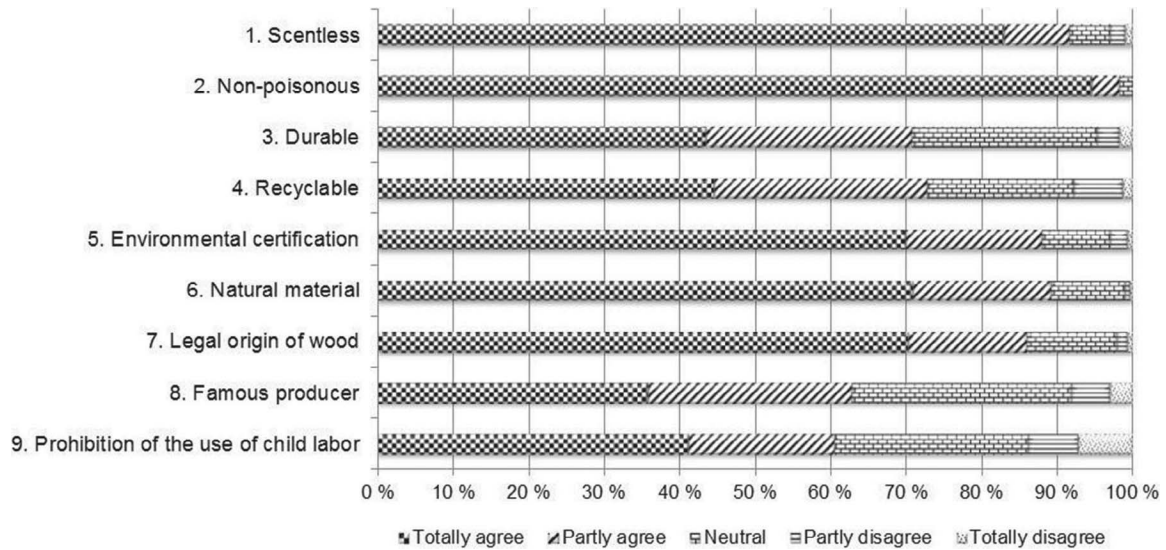


Figure 1.—Response distribution of variables measuring Chinese consumers' perceptions of the attributes of eco-friendly furniture.

be more strongly associated with the LOHAS lifestyle than male respondents, although the significance level was too low ($P = 0.124$). Also, there is some indication that the respondents with a higher education were more concerned about the lifestyle impacts on health and sustainable development, although the effect of the respondents' education level on their LOHAS lifestyle orientation was not found to be statistically significant in the sample ($P = 0.200$).

Discussion and Conclusions

With China's dynamic economic growth and Chinese consumers' rising disposable income and changing lifestyle, more and more Chinese parents are becoming aware of the

importance of health and sustainability to children's development. Thus, as one indication of this trend, the Chinese children's furniture industry has developed very rapidly, with more concerns about the eco-friendliness of products.

Based on our results, from the perspective of Chinese consumers, natural, nonpoisonous, and scentless material; adoption of environmental certification; and verification of legal origin of wood were ranked as the most important attributes of eco-friendly furniture. In contrast, prohibition of the use of child labor was the least valued attribute of eco-friendly furniture. This is not surprising, as child labor in China is a common phenomenon due to poverty, family breakdown, disasters, and other forces, especially in rural

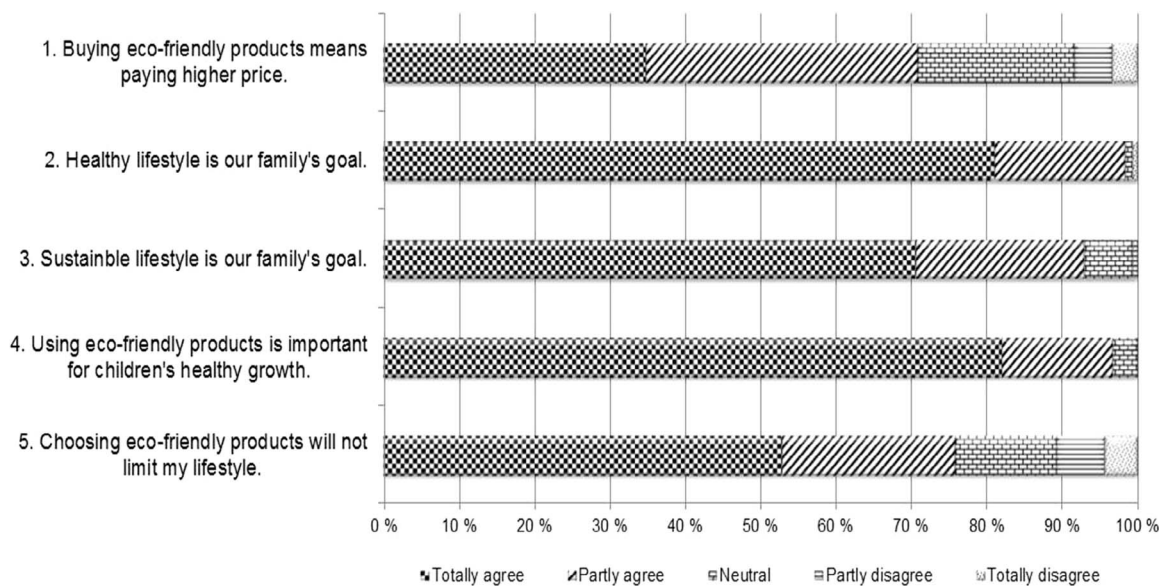


Figure 2.—Response distribution of statements measuring Chinese consumers' perceptions of the lifestyles of health and sustainability (LOHAS).

Table 1.—Differences between Chinese consumers' lifestyles of health and sustainability (LOHAS) orientation and demographic variables based on analysis of variance test results.

Demographic variables	Mean	F test value	P value
Location			
Shanghai	22.7671	14.896	0.000
Shenzhen	21.7974		
Sex			
Male	21.9899	2.378	0.124
Female	22.4100		
Age (y)			
20–30	21.2714	7.719	0.000
31–40	22.5904		
41–50	22.2571		
51–60	24.0000		
Income (RMB)			
<10,000	21.6931	5.371	0.005
10,000–20,000	22.5143		
>20,000	22.6237		
Education			
Less than high school	21.8333	1.558	0.200
High school/vocational school	21.7200		
College/university undergraduate	22.4313		
University graduate or above	22.2308		

areas and undeveloped regions. Although the Chinese government has made efforts to combat child labor through adopting various policy measures, child labor is still a serious social problem that needs greater attention (Lu 2009). To effectively eradicate child labor, some see that China's next steps could include reducing poverty, strengthening its 9-year universal education program to support children's successful completion of school, and increasing public awareness of child labor (Schmitz et al. 2004).

Results of the study also indicate that the majority of the respondents expressed some features of the LOHAS lifestyle as their primary family goal, implying a growing emergence of the LOHAS consumer segment in two coastal metropolitan cities of China (Shanghai and Shenzhen) and signaling Chinese consumers' rising environmental awareness of children's furniture.

In previous research, sociodemographic characteristics, such as sex, marital status, age, level of education, income, culture, social status, and reference groups of consumers have been applied to measure consumers' environmental awareness (Laroche et al. 2001, Diamantopoulos et al. 2003, Aguilar and Vlosky 2007, Mohamed and Ibrahim 2007, Van Houtven et al. 2007). But as a basis for segmentation, these characteristics are often found to be weak. Pertaining to consumers' responses to corporate social responsibility (CSR), it seems that older individuals (Carrigan et al. 2004), females, and higher-education and higher-income groups are more supportive of CSR practices and are involved in some type of environmental purchase behavior (Diamantopoulos et al. 2003, D'Souza et al. 2007, Youn and Kim 2008). Additionally, a recent study by Toppinen et al. (2013) found that Finnish consumers with stronger preferences for environmental and social sustainability are likely to be female and more elderly. In the present study, some interesting differences were also found between Chinese consumers' background and their LOHAS lifestyle orienta-

tion. For example, females and the respondents living in Shanghai and with higher income seemed to be more willing to pursue a healthy and sustainable lifestyle and choose eco-friendly products, especially for the sake of children's healthy growth.

In order to promote the healthy development of the children's furniture segment, the Chinese government has taken some initiatives by implementing a new national standard to ensure the improved product safety and high quality of products. Furthermore, according to the statistics, the number of children younger than 14 years old reached 220 million, accounting for 16.5 percent of the total population (China Society for Human Rights Studies 2013). The disparity between low market share and high population rate presents a tremendous potential market for furniture producers to develop the children's furniture industry. Therefore, the Chinese children's furniture industry is expected to grow, and prospects for the Chinese children's furniture market are promising. However, competition from foreign large-scale children's furniture retailers and emerging competitors has been intense for Chinese domestic furniture producers since the time that tariffs stopped being imposed on imported furniture in 2005, opening the Chinese market to medium- and low-grade furniture imported from Southeast Asia and high-grade furniture imported from Europe and North America (ITC/ITTO 2005). Other challenges facing the Chinese children's furniture industry include rising production costs and a lack of wood raw materials. Since solid wood is regarded by consumers as the preferred material of children's furniture, the huge demand for wood raw materials makes Chinese domestic furniture producers rely heavily on imports of wood.

In conclusion, as an engine for economic growth globally, China is still in the early stage of development in the children's furniture market, which remains to be further standardized. Additionally, there is still room to develop stronger brands, although this niche market presents a growing high-end segment with business potential not only for furniture producers but also for wood suppliers, requiring demonstration of sustainable and legally sourced wood.

Owing to the relatively small sample size and the nonrandom convenience sampling used in this study, it is not possible to generalize the results to a wider population. Nevertheless, the findings based on descriptive analysis can serve as useful background information for furniture companies that are planning their future investments. To prevent sampling bias, in the future, only the respondents who meet the inclusion criteria should be selected as sample units. Moreover, equal numbers of men and women may be chosen to participate in the interview to improve convenience sampling.

Nevertheless, as a preliminary step in understanding Chinese consumers' environmental perceptions of children's furniture, this study also opens up interesting avenues for future research. To better understand and manage the role of environmental friendliness and sustainability in consumers' actual buying decisions, it is suggested that future research should assess consumer preference for eco-friendly products, for example, by applying experimental research techniques and discrete-choice modeling incorporating the influence of product prices.

Literature Cited

- Aguilar, F. X. and R. P. Vlosky. 2007. Consumer willingness to pay price premiums for environmentally certified wood products in the U.S. *Forest Policy Econ.* 9(8):1100–1112.
- Atsmon, Y., J. Ding, V. Dixit, L. S. Maurice, and C. Suessmuth-Dyckerhoff. 2009. The coming of age: China's new class of wealthy consumers. Insights China. McKinsey & Company. https://solutions.mckinsey.com/insightschina/_SiteNote/WWW/GetFile.aspx?uri=/insightschina/default/en-us/aboutus/news/Files/wp2055036759/Insights%20China_v9_060ba3e4-ef85-43b3-b9a9-0f583012a10b.pdf. Accessed November 12, 2014.
- Axsen, J., J. Tyree Hageman, and A. Lentz. 2012. Lifestyle practices and pro-environmental technology. *Ecol. Econ.* 82:64–74.
- Baidu Wenku (BW). 2010. Consumer survey report on children's furniture. <http://wenku.baidu.com/view/f633514d2b160b4e767cf68.html>. Accessed April 21, 2013. (In Chinese.)
- Baidu Wenku (BW). 2011. Comparisons among four well-known solid wood children's furniture brands. <http://wenku.baidu.com/view/f40576ff700abb68a982fb0e.html>. Accessed May 2, 2013. (In Chinese.)
- Baidu Wenku (BW). 2012. Future prospects of children's furniture. <http://wenku.baidu.com/view/b7933ec2bb4cf7ec4afed0a2.html>. Accessed March 21, 2013. (In Chinese.)
- Beijing Evening News (BEN). 2011. Solid wood children's furniture, 2011. <http://wenku.baidu.com/view/298d7ae49b89680203d82512.html>. Accessed April 5, 2013. (In Chinese.)
- Beijing Evening News (BEN). 2014. The new national standards on children's furniture has been implemented for two years in China. <http://home.163.com/14/0725/00/A1V7CTDQ00104JHL.html>. Accessed October 17, 2014. (In Chinese.)
- Belz, F. and K. Peattie. 2012. Sustainability Marketing: A Global Perspective. 2nd ed. John Wiley & Sons, New York.
- Cao, X., E. Hansen, M. Xu, and B. Xu. 2004. China's furniture industry today. *Forest Prod. J.* 54(11):14–23.
- Carrigan, M., I. Szmigin, and J. Wright. 2004. Shopping for a Better World? An Interpretive study of the potential for ethical Consumption within the older market. *J. Consum. Mark.* 21(6):401–417.
- China Society for Human Rights Studies. 2013. On improving the legislation on the protection of the rights of the child in the new-type urbanization process: From the perspective of the convention on the rights of the child. Sixth Beijing Forum on Human Rights. http://www.chinahumanrights.org/Messages/Focus/2013/14/6/t20130921_1095238_4.htm. Accessed April 5, 2014.
- Dagevos, H., Y. He, X. Zhang, I. van der Lans, and F. Zhai. 2011. Relationships among healthy lifestyle beliefs and body mass index in urban China. *Int. J. Consum. Stud.* 35(1):10–16.
- Dahlen, M., L. Fredrik, and T. Smith. 2009. Marketing Communications: A Brand Narrative Approach. John Wiley & Sons, New York.
- Deng, Y. 2014. A New Development Model and China's Future. Routledge, New York. 272 pp.
- Diamantopoulos, A., B. Schlegelmilch, R. Sinkovics, and G. Bohlen. 2003. Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *J. Bus. Res.* 56(6):465–480.
- D'Souza, C., M. Taghian, P. Lamb, and R. Peretiatio. 2007. Green decisions: Demographics and consumer understanding of environmental labels. *Int. J. Consum. Stud.* 31(4):371–376.
- Erasmus, A. C., E. Boshoff, and G. G. Rousseau. 2002. Elicitation and generation of a script for the acquisition of household appliances within a consumer decision-making context. *J. Fam. Ecol. Consum. Sci.* 30:46–64.
- Ernst & Young. 2008. LOHA: lifestyle of health and sustainability. http://www2.eycom.ch/publications/items/2008_lohas/2008_ey_LOHAS_e.pdf. Accessed February 27, 2013.
- Euromonitor International. 2014. China overtakes the US as the world's largest economy: Impact on industries and consumers worldwide. http://go.euromonitor.com/rs/euromonitorinternational/images/China-Overtakes-US-Worlds-Largest-Economy-White-Paper.pdf?mkt_tok=3RkMMJWWfF9wsRogvqjIZKXonjHpfsXw6OoIUkO%2BIM1%2F0ER3fOvrPUfGj14FSMDh1%2BSDLdWEGJlv6SgFQRDAMatv0bgKWhg%3D. Accessed November 13, 2014.
- Fan, W. and Z. Zhao. 2011. Dynamics and development trend of furniture for kids industry. *J. Zhejiang Forestry Sci. Technol.* 31(4):70–75. (In Chinese.)
- Fraenkel, J. R. and N. E. Wallen. 2006. How to Design and Evaluate Research in Education. 6th ed. McGraw-Hill, Boston.
- French, S. and G. Rogers. 2006. Marketplace opportunities: Growth & demographic opportunities. *LOHAS J.* <http://www.lohas.com/marketplace-opportunities>. Accessed January 12, 2015.
- Green, T. and J. Pelozo. 2011. How does corporate social responsibility create value for consumers? *J. Consum. Mark.* 28(1):48–56.
- HKTDC Research. 2014. China's furniture market. <http://china-trade-research.hktdc.com/business-news/article/China-Consumer-Market/China-s-furniture-market/ccm/en/1/1X000000/1X002L63.htm>. Accessed November 13, 2014.
- Holopainen, J. M., L. Häyrynen, and A. Toppinen. 2014. Consumer value dimensions for sustainable wood products: Results from the Finnish retail sector. *Scand. J. Forestry Res.* 29(4):378–385.
- International Trade Center/International Tropical Timber Organization (ITC/ITTO). 2005. International wooden furniture market: A review. ITC/ITTO, Geneva.
- Italy Trade Commission. 2011. Furniture market in China. <http://www.ice.it>. Accessed January 16, 2013.
- Laroche, M., J. Bergeron, and G. Barbarot-Forleo. 2001. Targeting consumers who are willing to pay more for environmentally friendly products. *J. Consum. Mark.* 18(6):503–520.
- Li & Fung Research Centre. 2011. China's home products market. http://www.funggroup.com/eng/knowledge/research/industry_series18.pdf. Accessed January 11, 2015.
- Li, N. and A. Toppinen. 2011. Corporate responsibility and sustainable competitive advantage in forest-based industry: Complementary or conflicting goals? *Forest Policy Econ.* 13(1):113–123.
- Lu, D. 2009. A review of the available literature covering child labor in China. Center for Child Rights and Corporate Social Responsibility (CCR CSR), Beijing. 38 pp.
- Luo, D. Y. 2012. Market research of furniture design—The children's furniture as a case study. *China Bus. Trade* 30:24–25. (In Chinese.)
- Mohamed, S. and M. L. Ibrahim. 2007. Preliminary study on willingness to pay for environmentally certified wood products among consumers in Malaysia. *J. Appl. Sci.* 7(9):1339–1342.
- Pakarinen, T. 1999. Success factors of wood as a furniture material. *Forest Prod. J.* 49(9):79–85.
- Parikka-Alhola, K. 2008. Promoting environmentally sound furniture by green public procurement. *Ecol. Econ.* 68(1):472–485.
- Paul, J. 2008. The greening of China's food—Green food, organic food, and eco-labelling. In: Sustainable Consumption and Alternative Agri-Food Systems Conference, May 27–30, 2008, Arlon, Belgium. 14 pp. <http://www.docin.com/p-101123854.html>. Accessed January 15, 2015.
- Plunkett, J. W. 2010. The Next Boom: What You Absolutely, Positively Have to Know about the World between Now and 2025. BizExecs Press, Plunkett Research, Ltd., Houston, Texas.
- Rácz, G. and Á. Horváth. 2011. LOHAS themes in Hungarian women's magazine. *Reg. Bus. Stud.* 3(1):589–606.
- Rajasekhar, S. and S. Makesh. 2013. Impact of advertising on brand preference of high involvement products. *Int. J. Commerce Bus. Manag.* 2(4):202–211.
- Ray, P. H. 1997. The emerging culture. *Am. Demographics* 19:28–34.
- Roos, A. and A. Q. Nyrud. 2008. Description of green versus environmentally indifferent consumers of wood products in Scandinavia: Flooring and decking. *J. Wood Sci.* 54(5):402–407.
- Schmitz, C. L., E. K. Traver, and D. Larson (Eds.). 2004. Child Labor: A Global View. Greenwood Press, Westport, Connecticut.
- Shelly, J. R. 2001. Wood: Materials for furniture. In: Encyclopedia of Materials: Science and Technology. pp. 9658–9663. <http://www.jrreding.com/WoodMaterials.pdf>. Accessed April 5, 2013.
- Sheng, A. and P. Mar. 2013. Consumer trends for sustainable lifestyle in China. Fung Global Institute. <http://www.fungglobalinstitute.org/sites/default/files/u1913/Sustainable-Lifestyles-in-Asia.pdf>. Accessed January 14, 2015.
- Shenzhen Furniture Association. 2013. Children's furniture highlights. <http://www.szfa.com/news/201304/11/9835.html>. Accessed November 12, 2013. (In Chinese.)
- Sirieix, L., P. R. Kledal, and T. Sulitang. 2011. Organic food consumers' trade-offs between local or imported, conventional or organic

- products: A qualitative study in Shanghai. *Int. J. Consum. Stud.* 35(6):670–678.
- Smart Kids Furniture Co. Ltd. 2009. Children's furniture market, how much potential? http://kid.kf88.com/news/shownews11_en.htm. Accessed November 12, 2013.
- SouFun Holdings Ltd. 2011. Current situation of children's furniture in China. http://www.jiatx.com/bbs/pinpai/jc1234~-1~1637/57247952_57247952.htm. Accessed March 10, 2013. (In Chinese.)
- Tansey, O. 2007. Process tracing and elite interviewing: A case for non-probability sampling. *Polit. Sci. Polit.* 40(4):1–37.
- Toivonen, R. 2012. Product quality and value from the consumer perspective—An application to wooden products. *J. Forest Econ.* 18(2):157–173.
- Toppinen, A., R. Toivonen, A. Valkeapää, and A. K. Rämö. 2013. Consumer perceptions of environmental and social sustainability of wood products in the Finnish market. *Scand. J. Forest Res.* 28:775–783.
- Trochim, W. 2001. *The Research Methods Knowledge Base*. 2nd ed. Atomic Dog Publishing, Cincinnati, Ohio.
- Van Houtven, G., J. Powers, and S. K. Pattanayaka. 2007. Valuing water quality improvements in the United States using meta-analysis: Is the glass half-full or half-empty for national policy analysis? *Resour. Energy Econ.* 29(3):206–228.
- Youn, S. and H. Kim. 2008. Antecedents of consumer attitudes toward cause-related marketing. *J. Advert. Res.* 48(1):123–137.

Appendix I: Questionnaire on Consumers' Environmental Perceptions of Children's Furniture in Shanghai and Shenzhen, China (English Version)

1. What kind of material of furniture would you prefer when buying children's furniture?
 (1) Solid wood (2) Wood-based panel/Board (3) Board and solid wood combined material
 (4) Metal (5) Plastic (6) Other material, please specify _____
2. Does/Do your child/children have his/her/their own room? ____ (1) Yes (2) No
3. Does/Do your child/children have his/her/their children furniture? ____ (1) Yes (2) No
4. At what age do you think your child/children can have children's furniture? ____
 (1) No need (2) <3 years old (3) 3–7 years old (4) 7–12 years old (5) 12–16 years old
5. If you buy a whole set of children's furniture (including bed, wardrobe, bedside cabinet and bookcase), how much do you prefer to pay?

	(1)<3,000RMB	(2)3,000-5,000RMB	(3)5,000-10,000RMB	(4)10,000-15,000RMB	(5)>15,000RMB
A set of furniture					

6. **How do you usually get information about children's furniture?** ____
 (1) Advertisement (newspaper, TV, outdoor) (2) Professional magazine (3) Internet
 (4) Social media (e.g., Furniture Forum, IKEA Community) (5) Furniture stores
 (6) Relatives and friends (7) Experts (8) Other, please specify _____
7. In your opinion, what kind of properties makes furniture environmentally friendly?

	Totally agree -----> Totally disagree				
	5	4	3	2	1
Scentless					
Non poisonous					
Durable					
Recyclable					
Environmental certification (e.g., FSC, PEFC, CCFC)					
Natural material					
Legal origin of wood					
Famous producer					
No use of child labour					

8. Except yourself, please rank three groups that may influence your decision of buying children's furniture in order of their importance: ____ ____ ____
 (1) Spouse (2) Children (3) Child or children's grandparents (4) Relatives and friends
 (5) Social media (e.g., Furniture Forum, IKEA Community)
9. **Where do you usually buy children's furniture?** ____
 (1) Furniture chain stores, e.g., IKEA (2) Well-known brand furniture stores
 (3) Furniture city (4) Internet (5) Other, please specify _____

10. How often do you change children's furniture? _____

- (1) Not at all (2) Within 1–3 years (3) Within 3–5 years (4) Within 5–10 years
5) Till the old one is worn out.

Respondents' background:

1. Gender: _____ (1) Female (2) Male

2. Marital status: _____ (1) Single (2) Married

3. Age: _____

(1) 20–30 years old (2) 31–40 years old (3) 41–50 years old (4) 51–60 years old

(5) Over 60 years old

4. Living area: _____ (1) Urban area (2) Suburbs

5. Education level: _____

(1) Less than high school (2) High school/Vocational school (3) College/University undergraduate (4) University graduate or above

6. Occupation: _____

(1) Teacher (2) Company employee (3) Government employee (4) Entrepreneur

(5) Blue-collar worker (6) Farmer (7) Military personnel (8) Student (9) Unemployed

(10) Housewife (11) Retiree (12) Others (please specify) _____

7. Number of adults in household: _____

8. Age/Ages of your child/children: _____

9. Monthly household income: _____

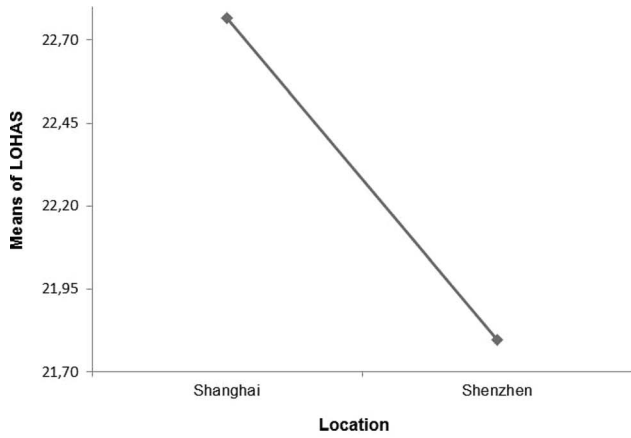
(1) <5,000 RMB (2) 5,000–10,000 RMB (3) 10,000–20,000 RMB (4) 20,000–40,000 RMB

(5) >40,000 RMB

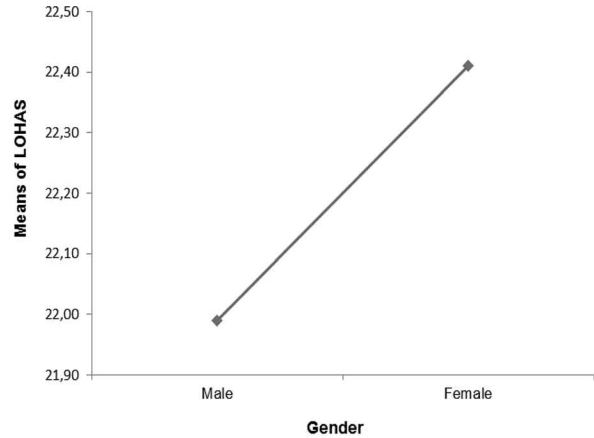
10. Please tick the preferred option from the following statements:

	Totally agree -----> Totally disagree				
	5	4	3	2	1
1. Buying eco-friendly products means paying higher price.					
2. Healthy lifestyle is our family's goal.					
3. Sustainable lifestyle is our family's goal.					
4. Using eco-friendly products is important for children's healthy growth.					
5. Choosing eco-friendly products will not limit my lifestyle.					

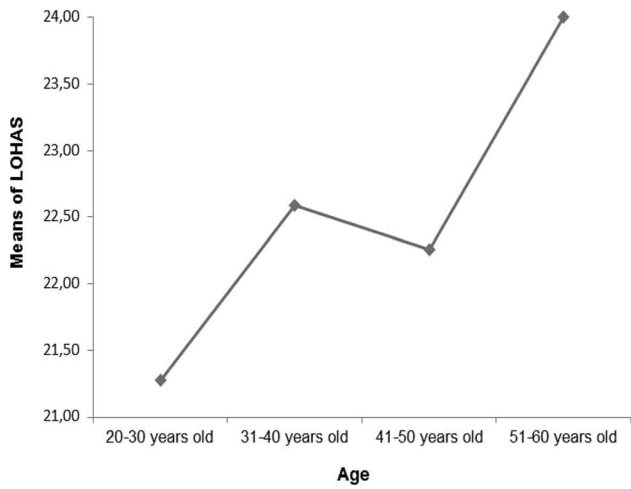
Appendix 2: Means Plots of Lifestyles of Health and Sustainability (LOHAS) Lifestyle Orientation against Consumer Background Variables



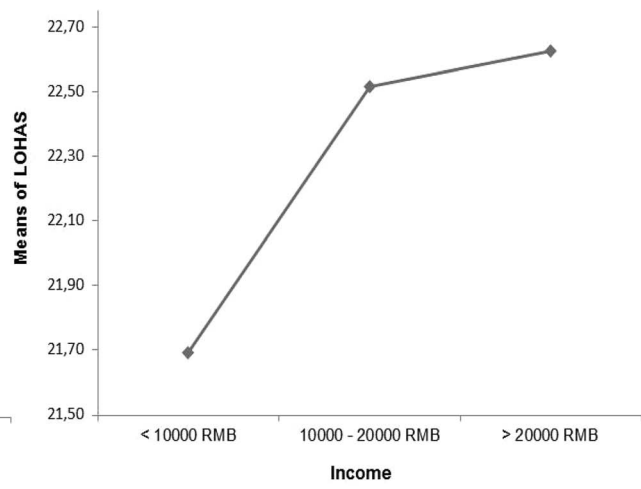
1.—Means plot of LOHAS lifestyle orientation against location.



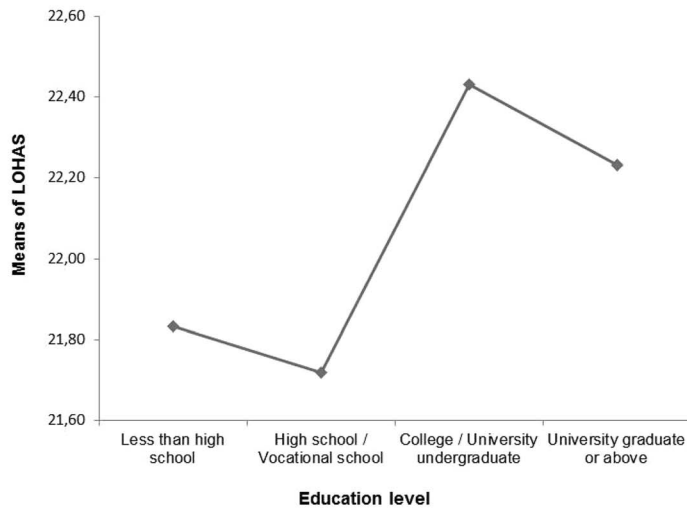
2.—Means plot of LOHAS lifestyle orientation against gender.



3.—Means plot of LOHAS lifestyle orientation against age.



4.—Means plot of LOHAS lifestyle orientation against income.



5.—Means plot of LOHAS lifestyle orientation against education level.