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**PURCHASER STYLE OF CHINESE ONLINE SHOPPERS
FOR SPORT PRODUCTS**

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PURCHASER STYLE OF CHINESE ONLINE SHOPPERS FOR SPORT PRODUCTS

TIANNAN LI

ABSTRACT

China is a fast growing developing country and has become an important market for sport products. China also has the most web users in the world. For this reason, to understand the purchasing style of Chinese online shoppers on sport products is important and valuable to sport marketers. The purpose of this study was to examine the purchasing style of Chinese online consumers on sports products using the Purchase Style Inventory for Sport Products (PSISP). The PSISP consists of 42 items under nine dimensions: (1) Quality, (2) Brand, (3) Fashion, (4) Recreation, (5) Price, (6) Impulse, (7) Confusion, (8) Habit, and (9) Endorsement. In this study, a section on demographics was also included in the questionnaire. Participants were subscribers ($N = 576$) of the following two major websites: www.hoopchina.com and www.x-kicks.com. The Dimension Reduction procedure from the PASW Statistics 18 (2011) was used to identify the factor structure of the PSISP. Factorial ANOVAs were adopted to compare the mean differences among the Chinese online shoppers in the following variables: gender, age, marital status, income, and profession. Results of the exploratory factor analysis indicated that a 7-factor model was the most interpretable for the consumers in China. The results also revealed that there were significant ($p < .05$) differences in Chinese online purchasing styles between gender, age, marital status, and profession. The comparisons and implications were discussed.

TABLE OF CONTENTS

	Page No
ABSTRACT	iv
LIST OF TABLES	viii
CHAPTER	
I. INTRODUCTION	1
Current Sports Industry in China	1
Online Shopping in China	3
Literature Review	4
Definition of Terms	19
Purpose of This Study	20
II. METHODS	21
Participants	21
Instrument	21
Procedures	22
Data analysis	23
III. RESULTS	25
Descriptive Statistics of the Participants.....	25
Descriptive Statistics of the PSISP Items	27
Quality.....	27
Brand.....	27
Fashion	31
Price	31

Confusion	31
Habit	31
Endorsement	32
Demographics of the Participants and the Seven Factors of the PSISP	32
Gender	32
Age	32
Marital Status	35
Income	36
Profession	39
IV. DISCUSSION.....	40
Quality Factor	41
Brand Factor	41
Fashion Factor	41
Price Factor	42
Confusion Factor	42
Habit Factor	42
Endorsement Factor	43
Differences in Gender	43
Differences in Age	44
Differences in Marital Status	45
Differences in Income	45
Differences in Profession	46
Conclusion	47

Limitations	48
REFERENCES	49
APPENDIX	56
Appendix A. Chinese Online Shopper Style for Sport Products Questionnaire.....	56

LIST OF TABLES

Table		Page
1	Descriptive Statistics: Demographics of the Participants ($N = 490$)	26
2	Pattern Matrix of the PSISP (29 Items)	28
3	Descriptive Statistics of the PSISP Items ($N = 490$)	30
4	Univariate ANOVAs Comparing Mean Differences of Gender Among the Seven Factors of the PSISP ($N = 490$)	33
5	Univariate ANOVAs Comparing Mean Differences of Age Group Among the Seven Factors of the PSISP ($N = 490$)	34
6	Univariate ANOVAs Comparing Mean Differences of Marital Status Among the Seven Factors of the PSISP ($N = 490$)	35
7	Univariate ANOVAs Comparing Mean Differences of Income Level Among the Seven Factors of the PSISP ($N = 490$)	37
8	Univariate ANOVAs Comparing Mean Differences of Profession Among the Seven Factors of the PSISP ($N = 490$)	39

CHAPTER I

INTRODUCTION

Current Sports Industry in China

The sport industry has grown steadily in the last decade. Every year, billions of dollars are spent on sporting events and sports-related equipment and apparels. For example, sales for all sports footwear in 2000 were \$13 billion, while sales for sports equipment were more than \$21 billion (U.S. Census Bureau, 2004a; 2004b). By 2010, sales for all athletic and sports footwear had exceeded \$17 billion, while sales for athletic and sports equipment were topped \$24 billion (U.S. Census Bureau, 2010).

China is a fast growing developing country and has become an important market for all sport products. After the 2008 Beijing Olympic Games and the 2010 Guangzhou Asian Games, the sports industry in China has entered into a fast-growing era (Lei, 2010). The 2008 Beijing Olympic Games significantly accelerated the development of Chinese sporting goods market. Based on the report of the Chinese Academy of Industry Economy Research, the sales of Chinese sporting goods industry were 91 billion RMB or US\$14.2 billion (1 US dollar = 6.4 RMB) in 2008; and the number reached over \$100 billion RMB in 2009 (Jiang & Zhang, 2010). The Chinese sporting goods market (which includes footwear, apparel, and

equipment) has grown substantially in recent years and it reached over 106 billion RMB in 2010 (Lei, 2010; Zhang & Won, 2010). However, this only marks the beginning of the spur of the Chinese sporting goods market. The following positive factors explain why the Chinese sporting goods market is heading for a bright future in the coming years.

China has a rapidly growing economy. Based on the report of the National Bureau of Statistics of China, the Gross Domestic Product (GDP) of China was 47,156.4 billion RMB (US\$7.37 billion) in 2011, an increase of 9.2% over the previous year (Ma, 2012). The Chinese economy has become a driving force in the world economy. However, the Chinese sporting goods market only accounted for 0.4% of GDP when compared to other developed countries such as the United States (2% GDP). So the Chinese sporting goods market has great potential for growth and expansion.

China has held many world-class sporting events, such as the 2008 Beijing Olympic Games, Formula 1 World Championship, Association of Tennis Professionals (ATP) Masters Series, National Basketball Association (NBA) pre-season games, and the Asian Games. Additionally, a large number of world famous sports celebrities often participated in commercial and charitable activities in China. For example, NBA star LeBron James has visited China nine times in the last seven years (Qi & Zheng, 2005). There will also be more world-class sports competitions and events to be expected in future. These events can greatly promote the Chinese passion for sports, which, in turn, can stimulate the sales of all kinds of sports products in China, and contribute to the growth of Chinese sporting goods market.

The increase of disposable income promotes the possibility for Chinese to spend more money on sports related products. The Chinese are becoming more conscious of their health and recognize the importance of exercise. According to the General Office of the State

Council (2011), 40% of the population in China will be actively participating in exercise by 2020. These will stimulate the consumption of sports related goods and products.

With a growing sport industry and global market, sport products are more accessible to consumers because of new technology and the social media. Consumers are constantly bombarded by advertisement and are overwhelmed and confused by the huge variety of the sport products. Decision-making in purchasing sport products is becoming increasingly complex for consumers (Bae, Lam, & Jackson, 2009). So it is important to investigate consumer behaviors so as to better understand the decision-making process in purchasing sport products.

Online Shopping in China

The world has entered into the internet age, and e-business is becoming the norm (Liao, Proctor, & Salvendry, 2008). More and more companies have engaged their business online. Consumers can quickly access all kinds of information online whenever they want (Shih, 2008). On the other hand, the expansion of e-business gives consumers more and better choices than traditional shopping (Chen & Li, 2010). Therefore, development of online shopping can improve the availability of products information and reduce consumers' research costs (Johnson, Moe, Fader, Bellman, & Lohse, 2004; Park & Gretzel, 2010).

In China, online population soared from 485 million at the end of June 2011 (“29th Statistical”, 2012) to 538 million by the end of June 2012 (“30th Statistical”, 2012). This ranks China number one in web users. Because of the marketing potential, it is logical to investigate the purchasing style of the Chinese online consumers. In addition, China is a fast growing developing country and has become an important market for sport products (Xu & Zhou, 2010). The Chinese sporting goods market, including footwear, apparel and

equipment, has grown by an enormous rate (Zhang & Won, 2010), and this was stimulated, in part, by the 2008 Beijing Olympic Games and the 2010 Guangzhou Asian Games. In 2010, the Chinese sporting goods market reached over \$106 billion RMB (Lei, 2010). Understanding the purchasing style of Chinese online shoppers on sport products can enable e-commerce companies to better understand the needs of Chinese consumers will help e-retailers adjust and localize their marketing strategies (Liao et al., 2009a).

Literature Review

In order to understand consumer behavior in purchasing products, Sproles and Kendall (1986) developed the Consumer Style Inventory (CSI) to measure consumer decision-making styles. Based on the exploratory factors analysis, Sproles and Kendall concluded that the CSI consisted of 40 items with eight mental characteristics of consumer decision making: The eight mental characteristics that form the basis of CSI are: 1) Perfectionism or high-quality consciousness, 2) Brand consciousness, 3) Novelty-fashion consciousness, 4) Recreational, hedonistic shopping consciousness, 5) Price and “value for the money” shopping consciousness, 6) Impulsiveness, 7) Confusion over choice of brand, stores and consumer information, and 8) Habitual, brand-loyal orientation towards consumption. Each fundamental consumer decision-making characteristic is important to consumer-interest studies. Other characteristics might be equally valuable for specific application, but the characteristic chosen are among the most frequently discussed in consumer literature. The 40 items are on a scale of one to five, with ratings of “strongly disagree” to “strongly agree”. CSI provides a foundation for standardized testing of consumer decision-making styles, and it has many practical applications. However, the researchers also mentioned several issues must be addressed in future investigations of

consumer styles. One is the generality of consumer style characteristics. The researchers noted that the study done on high school students, who might have limited marketplace experience, could not generalize all consumers.

CSI has been used to investigate gender difference in decision-making styles of college students on sports apparel. Bae and John (2009) examined if there would be differences in the seven factors by gender, college classification, and if there would be significant interactions exist between gender, and college age/rank classification regarding sports apparel selection. Nine hundred college students from three different universities were selected. Eight hundred twenty-two questionnaires (376 from males and 446 from females) were returned. The questionnaire consisted of 36 items with two sections: (a) nine closed questions regarding general data, and (b) 27 five-point Likert scale items relating to consumer decision-making styles. The results indicated that male and female college-aged consumers had different decision-making styles in the following dimensions: fashion, impulse, and brand consciousness. The researchers concluded the female college-aged consumers were more affected by recreation, confusion, and impulse consciousnesses than male college-aged consumers. Female consumers were also found to be more concerned with quality and brand, and willing to spend more time in a store. The researchers recommended manufacturers design products based on these female characteristics. The researchers also found that most of consumers were confused by too many choices. Moreover, due to store display and pricing practices, consumers were also confused when shopping for sports products. The researchers recommended that sporting goods retailers arrange and design their stores to create a unique shopping environment and more customer services. However, no significant differences were found between college classifications or

interactions between gender and college classifications. As in any research, limitations exist. This study used a convenient sample rather than a random sample; therefore the result might not be applicable to other populations.

The CSI has also been used to investigate consumer behaviors in other countries such as Korea, China, New Zealand, Greece, India and Germany. Based on Sproles' study (1985) as well as Sproles and Kendall's study (1986), Hafstrom, Chae, and Chung (1992) designed a study to compare the decision-making styles between young consumers in the United States and Korea. The questionnaire was made of 42 questions under eight factors. The sample included 100 Korean college students initially, and then was modified to 400 randomly selected college students at four universities in Taegu, the fourth largest city in Korea; 369 questionnaires were returned, and 310 were valid. These 310 samples contained 53.5% females and 46.5% males, from age 17 to 27. The results of this study revealed that young consumers in Korea were more likely to buy well-known national brands that were the latest styles and expensive at nice department or specialty stores. These consumers were perfectionistic, quality-conscious, comparison shoppers. They were time and energy conscious consumers. Though they were impulse and careless shoppers, these consumers had brand-loyalty and were price-value conscious. Among these eight factors, seven factors confirmed the characteristics found in the U.S. samples, and one characteristic confirmed in the Korean sample was not found in the U.S. samples. There was an indication of the generality of several consumer decision-making styles between young U.S. and Korean consumers, which indicates that the CSI has the potential to be used across cultures.

In 1998, a modified model of CSI was developed by Fan and Xiao. They proposed that the following dimensions should be included in the CSI as the most basic mental

characteristics of consumer decision-making: brand consciousness, fashion consciousness, quality consciousness, price consciousness, time consciousness, impulsiveness consciousness, and information utilization. Then, they used a modified model of CSI to find out how young-adult Chinese consumers made purchasing decisions. They found that only five dimensions were reliable when they used a modified CSI model on Chinese college consumers ($N = 271$). The five identified dimensions were: brand consciousness, quality consciousness, price consciousness, time consciousness, and information utilization. The fashion consciousness and impulsiveness dimensions were dropped, since these two factors were unreliable (with a Cronbach alpha less than .50). In addition, this study indicated that the average Chinese student was not very brand conscious, but quite price and quality conscious. The student was neither very time conscious nor overwhelmed by information.

In a later study, Hiu, Siu, Wang, and Chang (2001) purified and validated the CSI in Chinese culture and profiled the decision-making styles of Chinese consumers. They selected adult consumers instead of students as a sample. The survey was conducted in malls and markets near the city of Guangzhou which had an outstanding economy. The CSI was administered to 387 adult consumers. Results showed that a seven-factor solution was more interpretable and the original measurement instrument (CSI) could not be fully applicable to Chinese culture since 22 items had to be dropped during the purification process. Specifically, the result indicated only 18 items and five factors of the original CSI were valid and reliable in Chinese culture: perfectionism, novelty-fashion consciousness, recreational consciousness, price consciousness, and confused by overchoice. In addition, cluster analysis identified three prominent market segments: 1) trendy and perfectionistic consumers, 2) traditional and pragmatic consumers, and 3) confused by overchoice

consumers. These can be used as a basis for further scale development. Also, this study indicated that consumers' choices were either because of the level of economic development or government intervention in less-developed countries. This study showed the influence of culture on the applicability of the CSI. The major shortcoming of this study was that the reliability scores of some factors were relatively low, and some factors were unstable.

More studies have been done on Chinese consumers. In 2009, a research group tried to determine the impact of consumer innovativeness on shopping styles of young Chinese consumers (Park, Yu, & Zhou, 2009). Two hypotheses were raised: 1) consumers who had predispositions toward cognitive innovativeness were inclined towards decision-making styles of quality and price conscious; and 2) consumers who had predispositions toward sensory innovativeness were inclined to have decision making styles of brand and fashion consciousness, recreation orientation, and impulsiveness. They adopted the 40-item CSI questionnaire developed by Sproles and Kendall (1986) and it was translated into Chinese by professional translators. The participants were 481 (268 females and 183 males) university students from two different universities in northern and southern China. The results of this study supported both hypotheses, and indicated that marketers should be aware of the differences and similarities in the shopping styles of consumers with different predispositions in China.

To investigate cross-cultural applicability of CSI, Durvasula, Andrews, and Lysonski (1993) examined consumers' decision-making styles in New Zealand. This study was consistent with the stream of research that addressed the cross-cultural applicability of consumer behavior measurement scales and procedures. The sample was 210 undergraduate business students at a large university in New Zealand. The analysis examined the

psychometric properties of the CSI. The researchers found New Zealand results similar to those of the United States and provided general support for this inventory. However, not all the results were comparable. Some items displayed a different pattern of loading compared to the U.S. The researchers also found that a different retail environment in New Zealand might account for variation in the findings. In addition, the researchers warned that consumers affairs specialists should not assume that instruments validated in the U.S. were immediately applicable to other countries. They also recommended a more parsimonious version of the inventory with fewer scale dimensions that exhibits greater internal consistency could be developed and validated via confirmatory factor analysis.

Later on, another study (Lysonski, Durvasula, & Zotos, 1996) was performed to investigate the decision-making profiles of consumers in four diverse countries, as well as the applicability of an instrument designed to measure consumer decision-making styles. The goal of the study was to verify the applicability of the CSI to other countries. Their aim was to examine an accepted instrument for profiling consumer decision making using a database of four countries (USA, India, Greece and New Zealand), each representing different levels of economic development. The sample was undergraduate students, all majoring in business administration. There were a total of 486 students: 95 from Greece, 73 from India, 210 from New Zealand, and 108 from the U.S. CSI was administered during class time in each country. The CSI inventory was factor analyzed using data from the four countries. After inspecting the factor solution and the item loadings, six items from the original CSI inventory were deleted. The original CSI factor structure was found not applicable to three of the countries. The CSI inventory received some support from four different samples, two of them represented economically developed countries and the other two represented

economically developing countries. However, the inventory appeared to be more applicable to more developed countries, such as New Zealand and the U.S., than to the developing countries, such as India and Greece. Numerous differences in retail infrastructure and culture exist among these countries. Perhaps the differences in the retail environment in India and Greece can explain why the inventory cannot be applied to these two countries.

In 2001, Walsh, Hennig-Thurau, Wayne-Mitchell, and Wiedmann tested the structure of decision-making styles of German shoppers and its use in segmenting consumers. A German version of 40-item CSI was developed. A sample of 455 German consumers was collected. A seven-dimensional structure of decision-making styles was constructed using principal component analysis and confirmatory factor analysis. Cluster analysis identified six meaningful and distinct decision-making groups: (1) consumers whose buying behavior was factual and value oriented, (2) consumers who had high demands with regard to the products they purchased and enjoyed searching for and choosing products, (3) very impulsive buyers who tended to be rather indifferent with regard to brand and shopping experiences, (4) strongly emotional hedonistic shoppers likely to perceive confusion by choices, (5) brand-oriented and enthusiastic shoppers, and (6) fashion conscious result-oriented consumers. The researchers concluded that consumer decision-making styles could be used as the basis of segmenting consumers and it was likely that both specific-need and product-service preferences were associated with those segments.

Despite numerous studies on consumer purchasing styles using the CSI, these studies concentrated only on general products and rarely on sports products. To fill the void, Bae, Lam, and Jackson (2009) did a study to develop the Purchasers Style Inventory for Sports Products (PSISP) for profiling American college consumers in purchasing sports products.

The PSISP was built upon the CSI with an additional 6-item factor – celebrity endorsement. Celebrity endorsers are individuals who enjoy public recognition and use this recognition on the behalf of consumer goods by appearing with goods in an advertisement (McCracken, 1989). The factor of celebrity athlete endorsement is important in consumers' decision-making styles, and celebrity athlete endorsement is an important sport marketing segment to persuade consumers to buy new sport products (Brooks & Harris, 1998). Participants were undergraduate college students from two samples: Sample one ($N = 372$) and Sample Two ($N = 374$). Quality, brand, fashion, recreation, price, impulsiveness, confusion, habit, and endorsement are the nine factors that factor analysis identified. An average total variance of 54.75% had been explained. Overall, the results suggested that the PSISP was a reliable instrument that could provide useful information for sports marketers.

The PSISP has been used in practice. A research group from Singapore (Bae, Pyun, & Lee, 2010) investigated Singaporean consumers' decision-making styles on sports products by using the PSISP. The instrument consisted 42 items under nine dimensions, and was administrated to 234 college students in Singapore. The results showed that the participants preferred to shop at specialty stores rather than sporting goods or department stores. More than 70% of the participants went shopping with their friends instead of by themselves or with their family members. In terms of brand preference, almost half of the participants chose Adidas over Nike or other brands. This study indicated the generality of some decision-making styles, which was helpful to understand various consumer segments and to develop target positioning with specific marketing strategies. However, this study also had some limitations. The participants were from the same university, and the questionnaire was developed based on American college consumers; some dimensions may

not be used to identify individual consumer's shopping styles in Singapore because of culture and economic differences.

All the studies mentioned above were concentrated on in-store purchasing styles. However, with the advances and development of modern technology, the growth of the sports industry has expanded into another setting. Schlosser, White, and Lloyd (2006) pointed out that as more people learn to use computers, with easy access to the internet, the more likely they are to purchase products online. In fact, the internet is becoming one of the most important marketing tools for sport managers and marketers since it has become a primary source of information for sporting goods consumers (Delpy & Bosetti, 1998). For instance, by 2011, 85% of 2400 sporting goods manufacturers used the internet to conduct business (SGMA, 2011).

Unlike traditional shopping methods, shopping online offers benefits that one will not find shopping in-store or by mail; internet was always open and bargains can be numerous. Magesh (2011) identified the factors that influence the consumers chose online shopping over in-store retail shopping. This study specially referred to Chennai City, India. The researcher distributed surveys (10 items) and got 150 respondents. Each item was compared by income, age, and product type. This study concluded that the reason consumers prefer online shopping were: avoiding crowds, saving time, the variety of products with competitive prices, easy product information, easy gift delivery, and people like to receive stuff in the mail. Income factors played a very important role in preference towards the online shopping. The researcher discovered that males preferred online shopping more than females. Also, software, records, tickets, travel, cell phones, books, computer hardware and services were the popular products purchased with online shopping.

The motivation and concern of online shopping were also tested. A research group from Malaysia (Ling, Chai, & Piew, 2010) did a study to evaluate the impacts of shopping orientation, online trust and prior online purchase experience to the customer online purchase intention. The questionnaire they used had three parts: (1) general information about the online purchasing behavior of the potential respondents, (2) independent variables and dependent variable that would be tested in the survey, and (3) the demographic profile of the respondents. The participants were 242 undergraduate students from a private university in Malaysia. The results revealed that impulse purchase intension, quality orientation, brand orientation, online trust and prior online purchase experience were positively related to the customer online purchase intention. However, this study had limitations. The participants were all consumers with some online shopping experience; consumers who had no experience but intended to do online shopping were not covered. This decreased the generalizability of the subsequent research. Other than this, this study did not consider gender differences in moderating the relationship between shopping orientations and customer online purchase intention. Gender differences were found previously by researchers that they had a significant influence on online purchase intention (Jayawardhena, Wright, & Dennis, 2007).

Hur, Ko, and Valacich (2007) did a study to test the motivation (convenience, information, diversion, socialization, and economic) and concerns (security privacy, delivery, product quality, and customer service) of online sporting goods consumption when using the internet for information and shopping. The Scale of Motivation for Online Sport Consumption (SMOS) was developed and modified; the final instrument had a total of 31 items: 17 items for motivation and 14 items for concerns. The questionnaire was then given

to sports participants in a large university. The number of returned questionnaires was 233. Among these returned questionnaires, 222 were complete and included in further data analysis. The 222 respondents included 131 males and 91 females. They were aged between 18 and 33. The results indicated that motivation positively influenced sport fans' actual usage of sport-related websites, but no coefficient was found from concerns to motivation and actual usage.

Another study was done by Liu and Forsythe (2010) to test the effect of technology acceptance model factors (usefulness, enjoyment, ease of use) on the use of the online channel for information and online purchase. They used a commercial online survey service provider to send the questionnaire. A total number of 1,500 surveys were sent and 789 were returned, the return rate was 53%. Among these returned surveys, 598 (39.9%) were valid after eliminating duplicate and incomplete responses. All the participants were middle-to-upper income adults, with 70% younger than 45 years old. The survey used 7-point multi-item scales; it contained 16 items measuring online shopping benefits and 12 items measuring online shopping risks. The results indicated that usefulness directly affected online purchase, while enjoyment only affected online purchase indirectly. Ease of use affected usefulness and enjoyment.

Cross-culture difference on shopping styles was tested by Liao, Proctor, and Salvendy (2009b). They compared the preference difference of Chinese and US consumers on e-commerce. Ten hypotheses were raised about behavior differences towards e-commerce between Chinese and U.S. consumers: U.S. consumers paid more attention to information about new technology, products size, product performance, and convenience features; while Chinese consumers paid more attention to information about product

warranties, the region of manufacture, product composition and accessories, product weight and color information, cost-effectiveness, and value-retention capability. The participants included 28 Chinese and 27 U.S. Students enrolled in Purdue University, 4 Chinese and 3 U.S. students were dropped because of lacking internal consistency. Among those 24 Chinese participants, 54.2% were female, 29.2% were undergraduate students, and 41.7% were engineering majors; whereas the 24 U.S. participants were composed of 45.8% female, 62.5% undergraduate students, and 75.0% engineering majors. The ages of Chinese participants were from 18 to 28 years, and the ages of US participants were from 21 to 29 years. Three categories of products were chosen for the experiment: MP3 players, digital cameras, and laptop computers. All the participants were instructed to complete an online reaction on a specially designed e-commerce website. The shopping tasks contained two different stages: (1) choose from various products according to the participants' preference, and (2) check out and choose to save their personal information on the website or not, as well as choose from two different payment options. The results showed that two hypotheses were supported: Chinese consumers paid more attention to information about product warranty, and product composition and accessories. One hypothesis was not supported: U.S. consumers paid more attention to product size information. One hypothesis was partially supported: Chinese consumers pay more attention to product weight and color, the part about weight was supported, and the part about color was not. The results concluded that Chinese online consumers paid more attention on utilitarian and economic aspects of products, while U.S. consumers paid more attention on hedonic and performance aspects of products, this may be because of the different economic standing between these two countries.

A research group from China (Chen & Li, 2010) did a study to examine consumers' willingness to buy from e-commerce vendor in Chinese online market. They used a survey containing five point Likert scales questions in two sections: (1) demographic questions, such as gender, education level, etc., and (2) questions to measure model variables, the variables included perceived reputation, perceived risk, perceived size, perceived system assurance, perceived privacy information protection, and ease of use. The samples were 300 students from Tongji University. Among these 300 questionnaires, 44 were dropped because they were not completed, 256 valid questionnaires were used for analysis. This study concluded that perceived reputation is positively related to the level of willingness to buy, while the perceived risk was negatively related to the level of willingness to buy. However, other variables, including perceived size, perceived system assurance, perceived privacy information protection were insignificant related with the level of consumers' willingness to buy. The relationship between ease of use and the level of willingness to buy was mediated by perceived system assurance.

Most of the studies didn't consider the affect of demographic characters on the results. While there is strong empirical evidence that consumer personal characteristics influence the e-shopping preference and there are differences by gender, age, social grouping, and household income (Shankar, Smith, & Rangaswamy, 2003; Shih, 2004; Wu, 2003).

Hashim, Ghani, and Said (2009) chose part-time accounting students as sample and used questionnaire surveys to examine the effect of demographic profile on attitude which would consequently affect the consumers' online shopping behavior in relation to gender, age, salary, job designation and marital status. The researchers found that all five variables

were important determinants to online shopping behavior. The results showed the gender was very important factor influencing attitude towards online shopping behavior. Males were more likely to shop online than females. The researchers indicated that the male shoppers tend to be convenience shoppers and female shoppers tend to be recreational shoppers and would prefer to do their shopping the conventional way. The results concluded there was significant difference on the attitude toward online shopping by age. The 30 to 39 years old shoppers went shopping online more than other age groups. The researchers concludes that shoppers in 20 to 29 year-old group had just start working, so they did not have the same strong financial resources as the other groups, they were tight. The results also showed attitude towards online shopping behavior had relationship with salary and jobs. In this study, the majority of respondents had a monthly salary from RM 1,000 (US\$323) to RM 3,000 (US\$970). Only 30% of the respondents had a salary higher than RM 3,000. Shoppers with higher salary and higher management position were more likely to do online shopping than other groups. The researchers also indicated that the easier credit card access allows shoppers with higher income and higher management position to do more online shopping. The researchers concluded that marital status played an important role in influencing attitude toward online shopping behavior, and divorced individuals were more likely to shop online than their counterparts.

In 2008, Sulaiman, Ng, and Mahezar identified e-ticketing purchasing trends among urban communities in Kuala Lumpur, Malaysia. This study revealed that the majority of e-ticketing purchasers were the young, educated population with higher paying jobs. This questionnaire contained three sections of 7-point Likert scale questions: Section A focused on the demographic details of respondents, Section B was used to determine the respondents'

perception on e-ticketing, and Section C was used to collect data on the trends of e-ticketing usage. The sample was 500 random people in selected areas of Kuala Lumpur. The response rate was 58% ($N = 291$). The data showed that 56.4% of the respondents used e-ticketing, while 43.6% of them did not use e-ticketing. In terms of gender, it was found that 52.6% of the respondents were female, while the remainders were males. Over half of the respondents (56.7%) were between 26-35 years old. The majority of the respondents were married with children (47.4%). In terms of ethnicity, Chinese (65.3%) dominated the respondents group. The respondents mainly were professionals (27.5%) and managers (30.6%). Approximately 60% of the sampled respondents possessed a bachelor's degree. In this study, there were significant differences between age groups, education levels, and professions. However, gender, income, ethnicity, and marital status showed no significant difference on e-ticketing acceptance. The results of the study concluded that people's shopping behavior differed based on demographics.

Another research group from Malaysia (Haque, Sadeghzadeh, & Khatibi, 2006) did a study to investigate consumer online behavior. This study built a framework of consumer online behavior. Eight hypotheses were raised. The sample was 450 people chosen from internet users who registered with TMNet and agreed to participate in the survey. The number of valid respondent was 382. The age of the participants ranged from ages 17 to 56 years old, with 77% male and 23% female. Most of the respondents had graduate level education (23.3%). In terms of ethnicity, 58.6% of the respondents were Malay, followed by Chinese (24.3%), and Indian (14.1%). Nearly 75% of respondents were married. The largest professional group was government employees (23.6%), followed by private sector professionals (20.7%), businessmen in IT fields (19.9%), businessmen in non-IT fields

(17.3%), students (9.7%), and others (8.9%). Families with 3,000 to 3,500 Malaysian Ringgit (RM) or US\$980 to US\$1,144 per month were the largest group among those respondents (22%). Furthermore, 90% of respondents had access to the Internet, 87% were aware of e-shopping but 72.3% had not had any experience in e-shopping. According to the results, gender and family income had influence on online shopping behaviors. This confirmed that demographic characters could in fact have an impact on online shopping behavior.

Definition of Terms

Consumer Style Inventory (CSI). CSI was developed by Sproles and Kendall (1986) to measure consumer decision-making styles. CSI consists of 40 items with eight mental characteristics of consumer decision making: (1) Perfectionism or high-quality consciousness, (2) Brand consciousness, (3) Novelty-fashion consciousness, (4) Recreational, hedonistic shopping consciousness, (5) Price and “value for the money” shopping consciousness, (6) Impulsiveness, (7) Confusion over choice of brand, stores and consumer information, and (8) Habitual, brand-loyal orientation towards consumption. The 40 items are on a scale of one to five, with ratings of “Strongly disagrees” and “strongly agree” as end points. CSI provides a foundation for standardized testing of consumer decision-making styles.

Purchaser Style Inventory for Sports Products (PSISP). In spite of numerous studies on consumer purchasing styles using the CSI, these studies concentrated only on general products and rarely on sports products. For this reason, Bae, Lam, and Jackson (2009) developed the PSISP, which was built upon the CSI with an additional factor – celebrity endorsement. The 42-item PSISP had nine factors: Quality Consciousness (8

items), Brand Consciousness (4 items), Fashion Consciousness (5 items), Recreation Consciousness (5 items), Price Consciousness (4 items), Impulsiveness Consciousness (3 items), Confusion Consciousness (4 items), Habit (3 items), and Endorsement Consciousness (6 items). The PSISP provided more meaningful ways to understand various sports consumer segments and to target each segment with more focused marketing strategies.

Demographic Variables. The demographic variables included in this study were: gender, age, marital status, income, and profession.

Purpose of This Study

The purpose of this study was to examine the purchasing style of Chinese online consumers on sports products using the PSISP. Several hypotheses were developed according to previous studies:

- H₁: There would be significant differences in the online purchasing styles of sport products between male and female participants.
- H₂: There would be significant differences in the online purchasing styles of sport products among participants in different age groups.
- H₃: There would be significant differences in the online purchasing styles of sport products between single and married participants.
- H₄: There would be significant differences in the online purchasing styles of sport products among participants with different income levels.
- H₅: There would be significant differences in the online purchasing styles of sport products among participants with different professions.

CHAPTER II

METHODS

Participants

The participants of this study were adult online shoppers from mainland China. The PSISP scale was posted on www.x-kicks.com and www.hupu.com from May 15, 2012 to June 15, 2012. All participants were subscribers of the following two websites: (a) www.hupu.com and (b) www.x-kicks.com. These two websites are the major sports and sporting goods news websites in China, with a combination of over 3 million registered members. An average of over 20,000 members visit those two websites per day; and together, they have over 10 million hits per day, according to alexa.chinabreed.com.

Instrument

The PSISP was used to measure the shopping styles of online consumers in China. The questionnaire included two sections (see Appendix A). The first section consisted of 42 items and the responses are based on a 5-point Likert scale (1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Neutral*; 4 = *Agree*; and 5 = *Strongly Agree*). The 42 items are distributed under nine dimensions: Quality (8 items), Brand (4 items), Fashion (5 items), Recreation (5 items), Price (4 items), Impulse (3 items), Confusion (4 items), Habit (3 items), and

Endorsement (6 items). The second section included five demographic variables: gender, age, marital status, income, and profession. All demographics questions were created based on extensive review of literature as well as from the inputs of the thesis committee members. The instrument was created to be easily completed by the participants.

Procedures

This study was approved by the Institutional Review Board (IRB) of Cleveland State University as well as the board managers of www.x-kicks.com and www.hupu.com. The study was announced on the forums of these two websites. A special topic was set up under the “Sporting Goods board” in each forum. The questionnaire (i.e., the 42-item PSISP and the five demographic questions) was uploaded to the websites as Microsoft word document for participants to download. The informed consent statement appeared on the front page. After completing the questionnaire, the respondents were instructed to e-mail it back to the researcher at: l3n-research@hotmail.com.

This researcher has his own sneaker review video channel (www.youku.com). This channel has over 260,000 hits and is one the biggest video website in China. To facilitate the data collection process, a special video was created (http://v.youku.com/v_show/id_XMzY1MTk3NTY0.html) to briefly introduce the study and help people participate in the survey. In addition, the researcher announced the survey on two of the most popular social websites (www.renren.com and www.weibo.com) in China.

Website subscribers had 30 days to respond to the survey after its announcement. They were informed that the participation was strictly voluntary and they could cease their participation at any time without penalty. They were also informed that there were no right or wrong answers for the questionnaire. To assure the confidentiality of their responses, the

participants were reminded not to put their name anywhere on the survey and their participation would be completely anonymous. Contact information of the researcher was given to the participants in case they had questions regarding the study.

Based on Dillman's Total Design Method (Masters, 2001), several actions were taken to ensure a high return rate. First, physical gifts were given out. Participants could note in their return survey email if they were willing to participate the raffle. One pair of Nike sneakers, eight Nike or Adidas t-shirts, and three Nike hats were given to random participants who completed the questionnaire and willing to submit their contact information on a separate e-mail for the raffle. Second, researchers followed up to remind the participants about the collecting deadline. A week before the deadline, a follow up announcement was posted on the website to remind participants about the survey. Third, after the completion of the questionnaire, a letter of appreciation was posted on both forums by the researcher. The researcher also expressed his appreciation to the participants through the video of his website.

The total number of the PSISP surveys collected was 576. Of the 576 returned questionnaires, 73 questionnaires were excluded due to incompleteness, and another 13 questionnaires were discarded due to underage of the participants (i.e., under 18 years old). As a result, 490 (85%) of the returned questionnaires were used for data analysis.

Data Analysis

All data were analyzed using the SPSS for Windows. The Dimension Reduction procedure from the PASW Statistics (Nouršis, 2010) was used to identify the factor structure of the PSISP. Exploratory Factor Analysis (EFA) was performed to identify the factor structure of the PSISP. Specifically, alpha factor extraction was adopted since the purpose of

the EFA was to make reliable generalizations to a universe of variables from a sample of variables. Item retention was based on eigenvalues equal to or larger than one as well as comparing the scree plot. In addition, items that had a factor loading less than 0.4 on its primary factor or had substantial cross-loading(s) were removed. Univariate or Factorial ANOVAs were used to compare the mean differences among the Chinese online shoppers in the following variables: gender, age, marital status, income, and profession.

CHAPTER III

RESULTS

The purpose of this study was to examine the purchasing style of Chinese online consumers of sports products using the PSISP. The questionnaire was posted on www.x-kicks.com and www.hupu.com from May 15, 2012 to June 15, 2012. By the end of the deadline, a total number of 576 participants responded to the survey. Of the 576 participants, 490 (85%) were deemed as usable for the current study after excluding 73 questionnaires due to incompleteness, and another 13 questionnaires due to underage (under 18 years old).

Descriptive Statistics of the Participants

These 490 qualified participants were composed of 364 males (74.3%) and 126 females (25.7%). Among them, 65% were students ($N = 319$), and the remaining 35% were non-students ($N = 171$). The majority of participants were between 21 and 25 years old (43.7%), followed by 18 to 20 years old (25.7%), 26 to 30 years old (18.8%), and over 30 years old (11.8%). In terms of marital status, 82.4% participants were single ($N = 404$), and 17.4% were married ($N = 86$). Approximately three quarters (74%) of the participants had a monthly salary below 4000 RMB. The largest income group was those below 2000 RMB (52.4%, $N = 257$), followed by 2000 to 4000 RMB (21.4%, $N = 105$), 4,000 to 6,000 RMB

(11.8%, $N = 58$), 6,000 to 10,000 RMB (9.8%, $N = 48$), and over 10,000 RMB (4.4%, $N = 22$). Descriptive statistics of the participants are shown in Table 1.

Table 1. Descriptive Statistics: Demographics of the Participants ($N = 490$)

	Frequency	Percent
Gender		
Male	364	74.3%
Female	126	25.7%
Age (Years)		
20 and Below	126	25.7%
21 – 25	214	43.7%
26 - 30	92	18.8%
31 and older	58	11.8%
Marital Status		
Single	404	82.4%
Married	86	17.6%
Monthly Income (RMB)		
Under 2,000	257	52.4%
2,000 to 4,000	105	21.4%
4,000 to 6,000	58	11.8%
6,000 to 10,000	48	9.8%
Over 10,000	22	4.4%
Profession		
Student	319	65%
Non-student	171	35%

Exploratory Factor Analysis (EFA) was used to identify the factor structure of the PSISP. Results of the alpha extraction with promax rotation identified 10 factors. However, there were items that had either a factor loading less than 0.4 on its primary factor or loaded on two or more factors and they were all removed. As a result of this refinement, 13 items

were eliminated from the original PSISP scale. The revised PSISP (see Table 2) had 29 items under seven factors: Quality (5 items), Brand (3 items), Fashion (5 items), Price (4 items), Confusion (4 items), Habit (3 items), and Endorsement (5 items). All these factors explained 54.54% of the total variances. The alpha reliability (i.e., internal consistency) of the seven factors are .83, .65, .83, .75, .76, .75, and .82, respectively. All factors, except Brand, demonstrated acceptable reliability (DeVellis, 2012; George & Mallery, 2003).

Descriptive Statistics of the PSISP Items

One-sample t-tests were used to examine the 29 items of the PSISP. Results showed that 19 of those items were significant ($p < .01$) from the median score (see Table 3). Any mean score below “3” revealed that participants disagreed with the item; while a mean score of above “3” indicated their agreement with that particular item.

Quality

Overall, participants considered quality as an important factor when they purchased athletic clothing. However, the only nonsignificant ($p > .05$) item in this factor was: “I make special efforts to choose the best quality athletic clothing” ($M = 2.91$). This indicated though the participants had a high expectation on the quality of the products, they would not spend extra time or effort to search for the best quality clothing.

Brand

The participants did not believe ($M = 2.51$, $p < .01$) that an advertised athletic clothing in window or catalog was usually good choices. They were, however, pretty neutral whether the higher the price of a product, the better the quality is. In other words, a higher price might or might not necessarily mean better quality.

Table 2. Pattern Matrix of the PSISP (29 Items)

	Factors						
	I	II	III	IV	V	VI	VII
Quality ($\alpha = .83$)							
When it comes to purchasing athletic clothing, I try to get the high quality	.75						
I usually try to buy the best quality athletic clothing	.72						
I make special efforts to choose the best quality athletic clothing	.85						
My expectations for the athletic clothing I buy are very high	.53						
I carefully consider the material of athletic clothing	.53						
Brand ($\alpha = .65$)							
The higher price of the product, the better its quality		.62					
Nice department and specialty stores offer me the best product		.74					
Advertised athletic clothing in the window or catalog are usually good choices		.76					
Fashion ($\alpha = .83$)							
I usually keep my wardrobe up-to-date with the changing fashions			.82				
Fashionable and attractive styling is very important to me			.71				
I usually have one or more outfits of the very newest style			.86				
It's fun to buy something new and exciting			.57				
For fashion, I shop different stores and choose different brands			.66				
Price ($\alpha = .75$)							
I buy as much as possible at sale prices				.83			
I usually choose the lowest price athletic clothing				.73			
I save as much money as I can during shopping				.78			
I usually use coupons to save money				.65			

Table 2 (Continued)

	Factors						
	I	II	III	IV	V	VI	VII
Confusion ($\alpha = .76$)							
Many brands often make me feel confused when I shop					.76		
Sometimes, it's hard to choose which store to shop					.77		
All the information I get on different products confuses me					.82		
The more I learn about athletics clothing, the harder it seems to choose the best					.66		
Habit ($\alpha = .75$)							
I buy my favorite brands over and over						.81	
Once I find a product or brand I like, I stick with it						.74	
I go to the same stores each time I shop						.59	
Endorsement ($\alpha = .82$)							
A celebrity endorser is very important to me							.79
Endorsed clothing is always positive							.76
I always choose clothing worn by celebrity athlete endorsers							.85
Celebrity athlete endorsers come to mind when I go to the athletic clothing store							.55
A celebrity athlete endorser is a very important part of decision-making when I shop							.72

Table 3. Descriptive Statistics of the PSISP Items (N = 490)

Factors	Mean (\pm SD)	<i>p</i>
Quality		
When it comes to purchasing athletic clothing, I try to get the high quality	3.65 (\pm 1.05)	.001**
I usually try to buy the best quality athletic clothing	3.43 (\pm 1.11)	.001**
I make special efforts to choose the best quality athletic clothing	2.91 (\pm 1.16)	.080
My expectations for the athletic clothing I buy are very high	3.49 (\pm 1.13)	.001**
I carefully consider the material of athletic clothing	3.24 (\pm 1.24)	.001**
Brand		
The higher the price of the product, the better its quality	3.01 (\pm 0.95)	.849
Nice department and specialty stores offer me the best product	3.04 (\pm 1.09)	.383
Advertised athletic clothing in the window or catalog are usually good choices	2.51 (\pm 1.01)	.001**
Fashion		
I usually keep my wardrobe up-to-date with the changing fashions	2.94 (\pm 1.11)	.221
Fashionable and attractive styling is very important to me	3.06 (\pm 1.17)	.296
I usually have one or more outfits of the very newest style	2.70 (\pm 1.16)	.001**
It's fun to buy something new and exciting	3.81 (\pm 1.22)	.001**
For fashion, I shop different stores and choose different brands	3.10 (\pm 1.14)	.052
Price		
I buy as much as possible at sale prices	3.20 (\pm 1.31)	.001**
I usually choose the lowest price athletic clothing	2.26 (\pm 1.09)	.001**
I save as much money as I can during shopping	3.27 (\pm 1.23)	.001**
I usually use coupons to save money	2.84 (\pm 1.25)	.005**
Confusion		
Many brands often make me feel confused when I shop	2.80 (\pm 1.32)	.001**
Sometimes, it's hard to choose which store to shop	2.70 (\pm 1.15)	.001**
All the information I get on different products confuses me	2.98 (\pm 1.08)	.707
The more I learn about athletics clothing, the harder it seems to choose the best	3.06 (\pm 1.18)	.270
Habit		
I buy my favorite brands over and over	3.98 (\pm 1.07)	.001**
Once I find a product or brand I like, I stick with it	3.74 (\pm 1.06)	.001**
I go to the same stores each time I shop	3.07 (\pm 1.15)	.169
Endorsement		
A celebrity endorser is very important to me	3.16 (\pm 1.08)	.001**
Endorsed clothing is always positive	3.65 (\pm 1.03)	.001**
I always choose clothing worn by celebrity athlete endorsers	2.83 (\pm 1.09)	.001**
Celebrity athlete endorsers come to mind when I go to the athletic clothing store	3.33 (\pm 1.12)	.001**
A celebrity athlete endorser is a very important part of decision-making when I shop	2.96 (\pm 1.15)	.455

* $p < .05$; ** $p < .01$

Fashion

Only two of the five items were significant ($p < .01$) in this factor, and they were in different directions. On one hand, the participants considered that “it is fun to buy something new and exciting” ($M = 3.81, p < .01$); on the other hand, they did not “usually have one or more outfits of the very newest style” ($M = 2.71, p < .01$). This is understandable since the majority (close to 75%) of the participants are under the lower end of the income scale (i.e., with a monthly income of no more than 4,000 RMB or US\$642).

Price

Participants did not use coupons when buying athletic clothing as they did when shopping for other items ($M = 2.84, p < .01$). They did not always chose the lowest priced athletic clothing ($M = 2.26, p < .01$). They purchased as much as possible during sales ($M = 3.20, p < .01$); and they tried to save money ($M = 3.27, p < .01$).

Confusion

It seems the participants had done some research before they made a purchase. For this reason, they did not think that they would be confused by the many brands ($M = 2.80, p < .05$) and they had difficulty in making their decision when it came to the selection of items during shopping ($M = 2.26, p < .01$).

Habit

Brand loyalty is very important for these participants. They usually stick to the brand they liked ($M = 3.20, p < .01$) and purchased their favorite brands over and over again ($M = 3.20, p < .01$). Nevertheless, they would not necessary go to the same stores when shopping ($M = 3.07, p > .05$)

Endorsement

The participants in general agreed that a celebrity endorser was important for a sport product ($M = 3.16, p < .01$), and they had strong positive attitude towards endorsed clothing ($M = 3.65, p < .01$). However, they did not always elect to wear clothing worn by celebrity athlete endorsers ($M = 2.83, p < .01$), and celebrity athlete endorser might not necessary to be part of their decision-making when they shop for sports products ($M = 2.96, p > .05$)

Demographics of the Participants and the Seven Factors of the PSISP

In this section, the differences of demographic variables (i.e., gender, age, marital status, income, and profession) among those seven factors of the PISPS would be presented. Univariate ANOVAs were used to examine the mean differences of all demographic variables. If a factor consisted of three or more means had a significant omnibus F-test, post hoc Least Significant Difference (LSD) tests were performed to determine which means were significantly different from each other.

Gender

Univariate ANOVAs were used to examine the mean differences of gender among the seven factors of the PSISP. The results indicated that there were no significant ($p > .05$) gender differences in the following factors: Brand, Fashion, and Price. However, there were significant ($p < .05$) gender differences in Quality, Confusion, Habit, and Endorsement. Interestingly, all male participants had higher mean scores than female participants in all those significant factors (see Table 4).

Age

Univariate ANOVAs were used to examine the mean differences of age group among the seven factors of the PSISP. There were significant ($p < .05$) age differences among all

the factors of the PSISP except Habit (see Table 5). For the Quality factor, post hoc multi-comparisons indicated that the 20 year-old or younger age group ($M = 3.19$) had significant ($p < .05$) lower mean scores than those in 26-30 year-olds ($M = 3.53$) and those who were 31 years or older ($M = 3.53$). In addition, the 21-25 year age group ($M = 3.30$) had significant ($p < .05$) lower mean scores than those in 26-30 year old group ($M = 3.53$).

Table 4. Univariate ANOVAs Comparing Mean Differences of Gender Among the Seven Factors of the PSISP ($N = 490$)

Factor	Male Mean (\pm SD)	Female Mean (\pm SD)	<i>F</i>	<i>p</i>
Quality	3.45 (\pm 83)	3.03 (\pm 95)	22.65	.001**
Brand	2.88 (\pm 81)	2.76 (\pm 69)	2.30	.130
Fashion	3.11 (\pm 87)	3.15 (\pm 93)	0.20	.656
Price	2.88 (\pm 99)	2.92 (\pm 73)	0.18	.676
Confusion	2.94 (\pm 90)	2.72 (\pm 90)	5.35	.021*
Habit	3.66 (\pm 91)	3.41 (\pm 85)	7.18	.008**
Endorsement	3.05 (\pm 83)	2.81 (\pm 85)	7.71	.006**

* $p < .05$; ** $p < .01$

In terms of the Brand factor, both the 20 years or younger ($M = 2.75$) and the 21-25 year age groups ($M = 2.83$) had significantly ($p < .05$) lower mean scores than those in the 31 year or older age group ($M = 3.11$). This situation was just the opposite for the Fashion factor, both the 20 years or younger ($M = 3.26$) and the 21-25 years ($M = 3.15$) age group had significantly ($p < .05$) higher mean scores than those in the 31 years or older age group ($M = 2.77$).

For the Price factor, there were significant ($p < .05$) differences between the 31 years or older age group and all other age groups. Those who were 31 years or older ($M = 2.41$) had significantly ($p < .05$) lower mean scores than all their younger counterparts. There were no significant ($p > .05$) mean differences among other age groups.

Table 5. Univariate ANOVAs Comparing Mean Differences of Age Group Among the Seven Factors of the PSISP ($N = 490$)

Factor	20 years and below Mean (\pm SD)	21 - 25 years Mean (\pm SD)	26 - 30 years Mean (\pm SD)	31 years and older Mean (\pm SD)	<i>F</i>	<i>p</i>
Quality	3.19 (\pm .99)	3.30 (\pm .87)	3.53 (\pm .81)	3.53 (\pm .73)	3.73	.011*
Brand	2.75 (\pm .84)	2.83 (\pm .69)	2.87 (\pm .86)	3.11 (\pm .79)	3.00	.030*
Fashion	3.26 (\pm .98)	3.15 (\pm .86)	3.08 (\pm .79)	2.77 (\pm .85)	4.23	.006**
Price	2.99 (\pm 1.01)	2.98 (\pm .91)	2.86 (\pm .83)	2.41 (\pm .83)	6.64	.001**
Confusion	2.90 (\pm .88)	3.09 (\pm .89)	2.59 (\pm .90)	2.55 (\pm .81)	10.32	.001**
Habit	3.54 (\pm .97)	3.53 (\pm .84)	3.74 (\pm .79)	3.75 (\pm 1.05)	1.92	.125
Endorsement	3.03 (\pm .89)	3.09 (\pm .74)	2.95 (\pm .87)	2.52 (\pm .86)	7.55	.001**

* $p < .05$; ** $p < .01$

There were barely significant ($p = .05$) mean differences between the 20 years or younger ($M = 2.90$) and the 21-25 years ($M = 3.09$) age groups in the Confusion factor. Nevertheless, both age groups had significantly ($p < .05$) higher mean scores than those in the 26-30 years ($M = 2.59$) and in the 31 years or older ($M = 2.55$) age groups.

The results of the Endorsement factor were identical to those of the Price factor. There were significant ($p < .01$) differences between the 31 years or older age group and all

other age groups. Those who were 31 years or older ($M = 2.52$) had significantly ($p < .01$) lower mean scores than all their younger counterparts, when there were no significant ($p > .05$) mean differences among other age groups.

Marital Status

Univariate ANOVAs were used to examine the mean differences of marital status among the seven factors of the PSISP. The results indicated that there were no significant ($p > .05$) mean differences in marital status among the following factors: Brand, Price, and Confusion. However, there were significant ($p < .05$) mean differences in marital status among Quality, Fashion, Habit, and Endorsement (see Table 6).

Table 6. Univariate ANOVAs Comparing Mean Differences of Marital Status Among the Seven Factors of the PSISP ($N = 490$)

Factor	Single Mean (\pm SD)	Married Mean (\pm SD)	<i>F</i>	<i>P</i>
Quality	3.28 (\pm 91)	3.66 (\pm 66)	13.63	.001**
Brand	2.85 (\pm 76)	2.89 (\pm 88)	.20	.653
Fashion	3.17 (\pm 88)	2.91 (\pm 88)	6.20	.013*
Price	2.93 (\pm 94)	2.73 (\pm 87)	3.28	.071
Confusion	2.91 (\pm 91)	2.76 (\pm 86)	1.82	.178
Habit	3.56 (\pm 91)	3.77 (\pm 84)	3.90	.049*
Endorsement	3.03 (\pm 81)	2.78 (\pm 93)	6.25	.013*

* $p < .05$; ** $p < .01$

For the Quality factor, those participants who were married ($M = 3.66$) had significant ($p < .01$) higher mean scores than those who were single ($M = 3.28$). This was also the case for the Habit factor, when those who were married ($M = 3.77$) had significant ($p < .05$) higher mean scores than those who were single ($M = 3.56$). This was just the opposite for the Fashion and Endorsement factors, where those single participants had significantly ($p < .05$) higher mean scores than their married counterparts.

Income

Univariate ANOVAs were used to examine the mean differences of income level among the seven factors of the PSISP. The results showed that there were significant ($p < .05$) mean differences in the income level among all the factors of the PSISP (see Table 7). For the Quality factor, post hoc multi-comparisons indicated that those with the lowest income level (i.e., under 2,000 RMB) had significantly ($p < .01$) lower mean scores than all their counterparts; whereas there were no significant ($p > .05$) differences in the mean scores among all other groups. In terms of the Brand factor, both the participants with a monthly income of under 2,000 RMB ($M = 2.75$) and between 4,000-6,000 RMB ($M = 2.70$) had significantly ($p < .05$) lower mean scores than those participants in all other income levels.

The case was a little complicated for the Fashion factor. Overall, those participants with an income of 10,000 RMB or more ($M = 3.52$) had the highest mean scores, which were significantly ($p < .05$) higher than all their counterparts except those who earned 2,000 to 4,000 RMB ($M = 3.30$). Post hoc multi-comparisons also indicated that those with the lowest income level (i.e., under 2,000 RMB) and those who earned 6,000 to 10,000 RMB ($M = 2.88$) had significantly ($p < .05$) lower mean scores than those who earned 2,000 to 4,000 RMB ($M = 3.30$) and those who had a monthly income of 10,000 RMB or more ($M = 3.52$).

Table 7. Univariate ANOVAs Comparing Mean Differences of Income Level Among the Seven Factors of the PSISP (*N* = 490)

Factor	Under 2,000 RMB Mean (SD)	2,000-4,000 RMB Mean (SD)	4,000-6,000 RMB Mean (SD)	6,000-10,000 RMB Mean (SD)	10,000+ RMB Mean (SD)	<i>F</i>	<i>p</i>
Quality	3.15 (±89)	3.54 (±85)	3.47 (±94)	3.68 (±61)	3.66 (±73)	7.69	.001**
Brand	2.75 (±72)	3.03 (±75)	2.70 (±97)	3.10 (±81)	3.09 (±74)	5.08	.001**
Fashion	3.08 (±96)	3.30 (±75)	3.04 (±97)	2.88 (±79)	3.52 (±77)	3.49	.008**
Price	3.07 (±92)	2.98 (±93)	2.66 (±75)	2.49 (±84)	1.89 (±68)	13.31	.001**
Confusion	3.04 (±82)	2.81 (±1.00)	2.68 (±99)	2.70 (±81)	2.31 (±92)	5.96	.001**
Habit	3.47 (±92)	3.74 (±79)	3.64 (±85)	3.65 (±94)	4.24 (±74)	5.07	.001**
Endorsement	3.02 (±79)	3.15 (±86)	2.86 (±93)	2.80 (±78)	2.45 (±87)	4.38	.002**

* *p* < .05; ** *p* < .01

This situation was easier to interpret for the Price factor. Overall, the higher the income level of the participants, the lower their scores in the Price factor. For example, those who earned 10,000 RMB or more ($M = 1.89$) had the lowest mean scores, which were significantly ($p < .01$) lower than those participants in all other income levels. In fact, those who earned under 2,000 RMB ($M = 3.07$) and 2,000 to 4,000 RMB ($M = 2.98$) had significantly ($p < .05$) higher mean scores than all their counterparts. This trend was similar to the Confusion factor, where those who earned under 2,000 RMB ($M = 3.04$) had significantly ($p < .05$) higher mean scores than all their counterparts. However, only those who earned 2,000 to 4,000 RMB ($M = 2.81$) had significantly ($p < .05$) higher mean scores than those who earned 10,000 RMB or more ($M = 2.31$); but there were no significant ($p > .05$) differences among those who earned 2,000 to 4,000 RMB ($M = 2.81$), 4,000 to 6,000 RMB ($M = 2.68$), and 6,000 to 10,000 RMB ($M = 2.70$).

For the Habit factor, those with an income of 10,000 RMB or more ($M = 4.24$) had the highest mean scores, which were significantly ($p < .05$) higher than all their counterparts. The second group with the highest mean scores were those who earned 2,000 to 4,000 RMB ($M = 3.74$) and they were significantly ($p < .05$) higher than those who earned under 2,000 RMB ($M = 3.47$).

It seemed the higher the income level of the participants, the lower their scores in the Endorsement factor. For those who earned 10,000 RMB or more ($M = 2.45$), they had significantly ($p < .05$) lower than those participants in all other income levels except those who earned 6,000 to 10,000 RMB ($M = 2.80$), which, in turn, had significantly ($p < .05$) lower mean scores than those who had a monthly income of 20,000 to 4,000 RMB ($M = 3.15$).

Profession

The majority (65%) of the participants were students. So the analysis of this section was to compare the mean differences between the students ($N = 319$) with those who were working or non-students ($N = 171$) due to the huge difference in sample size across the groups. The results the univariate ANOVAs indicated that there were significant ($p < .05$) mean differences in the profession among all the factors of the PSISP except Price. Overall, students had significantly ($p < .05$) higher mean scores in the following factors than non-student participants: Fashion, Confusion, and Endorsement. However non-students had significantly ($p < .01$) higher mean scores than non-student participants in the following factors: Quality, Brand, and Habit. A comparison of their mean scores is depicted in Table 8.

Table 8. Univariate ANOVAs Comparing Mean Differences of Profession Among the Seven Factors of the PSISP ($N = 490$)

Factor	Non-students Mean (\pm SD)	Students Mean (\pm SD)	<i>F</i>	<i>P</i>
Quality	3.64 (\pm 78)	3.19 (\pm 89)	31.25	.001**
Brand	2.98 (\pm 81)	2.78 (\pm 76)	7.25	.007**
Fashion	3.00 (\pm 78)	3.19 (\pm 93)	5.01	.026*
Price	2.79 (\pm 90)	2.94 (\pm 94)	2.88	.090
Confusion	2.69 (\pm 85)	2.97 (\pm 91)	12.19	.001**
Habit	3.76 (\pm 85)	3.51 (\pm 91)	8.24	.004**
Endorsement	2.81 (\pm 84)	3.08 (\pm 82)	11.21	.001**

* $p < .05$; ** $p < .01$

CHAPTER IV

DISCUSSION

The purpose of this study was to examine the purchasing style of Chinese online consumers on sports products using the PSISP. First, the psychometric properties of the PSISP were examined to see whether it was appropriate for the Chinese consumers. As a result of the EFA, 13 items and two factors from the original PSISP had to be removed. The remaining seven factors include the original PSISP scale. The revised PSISP included 29 items and seven factors: Quality (5 items), Brand (3 items), Fashion (5 items), Price (4 items), Confusion (4 items), Habit (3 items), and Endorsement (5 items). The alpha reliability of these factors were all above .70, with the exception of the Brand factor ($\alpha = .65$). This indicated that all the factors are reliable in evaluating the purchase styles of Chinese consumers. However, cautions are need when explaining the Brand factor. The PSISP was developed in the United States. It seems some revisions are needed when it was applied to Asian populations. For example, this happened when Bae et al. (2010) applied the PSISP to their Singaporean samples. Likewise, other researchers needed to remove some items to fit their samples, such as when Hiu et al. (2001) applied the CSI scale to their Chinese samples or when Lysonski et al. (1996) applied the CSI scale to Indian samples.

The following discussion has two parts. First, the seven factors of the PSISP are discussed. Then, the relationship between the demographic variables and those seven factors are explained in detail.

Quality Factor

Participants considered quality an important factor when they purchased athletic clothing. They had a high expectation on the quality of the products. However, because of their busy schedule, they might not spend extra time or effort to search for the best quality clothing. Overall, Chinese online consumers can be considered as high-quality conscious consumers (as indicated by all the significantly higher mean scores in the Quality factor).

Brand Factor

Based on the results of this study, Chinese online consumers were inconclusive about whether “the higher the price, the better the quality” of the product; or whether nice department or specialty stores always offer the best products. A possible explanation for this is that though consumers can purchase good quality products from nice department or specialty stores, there is also a high possibility that consumers can get good quality products with good price through other outlets (e.g., discount stores) other than department or specialty stores in China. Nevertheless, Chinese online shoppers had their own taste and preference, and they did not believe that advertised athletic clothing in a window or a catalog was always a good choice for them.

Fashion Factor

Chinese online consumers believed that it was fun to buy something new and exciting. They might also shop at different stores and chose different brands for fashion; but most of them did not have one or more outfits of the latest style. This is understandable since

the majority of the participants (75%) were students and they did not usually have that much buying power even when they were passionate about a new fashion or style.

Price Factor

In selecting athletic clothing, participants do not always choose the lowest price; and they do not use coupons much either. However, when opportunities come, they like to purchase as much as possible during promotions and tried to save as much as they could. Saving money does not mean they simply choose products with the lowest price and sacrifice the quality of the product. Instead, they try their best to buy the best quality products which are within their price range. In addition, coupons are not very common in China. They are only seen in some fast food restaurants such as McDonald's and Kentucky Fried Chicken.

Confusion Factor

Consumers in China usually do a lot of research before shopping since the return policies are not as easy as those in the United States. Though the consumers may have to handle a large amount of information, there is little difficulty for them to choose which brands they want and which stores they shop.

Habit Factor

Brand loyalty is very important for these participants. Chinese online consumers would like to stick with their favorite brands and purchase the same brands over and over again. In fact, additional comments of the survey showed that a lot of participants claimed that they were loyal customers of certain brands. Unlike the sporting goods market in the United States, numerous new stores are opened every year in China because the Chinese market is still growing. Therefore, people have many options when it comes to shopping and therefore may not stick to the same store.

Endorsement Factor

The participants in general agreed that a celebrity endorser was important for a sport product and they had very positive attitudes towards endorsed clothing. However, they might not always agree that celebrity athletic endorsers had a great influence on their decision-making when shopping for sport products. As previously discussed, the majority of participants in this study were students with limited income. It is true that students are more likely to have their favorite celebrities (e.g., LeBron James or Kobe Bryant) and their first choice may be, for example, LeBron's series basketball shoes when they go to purchase basketball shoes. However, due to their limited buying power, price and other factors might affect their final decision in purchasing sport products.

Differences in Gender

The majority of the participants (74.3%) in this study are males. Coincidentally, when Chen and Li (2010) did a research study to examine consumers' willingness to buy in a Chinese online market, they found that there were more male (70.3%) than female participants. It seems that the sporting goods market in China is dominated by males, and it seems that Asian males were more likely to shop online than females (Hashim et al., 2009). In this study, it was hypothesized that there would be significant differences in the online purchasing styles between male and female participants. In this regard, H₁ was partially accepted since the results indicated that there were no gender differences in the following factors: Brand, Fashion, and Price; whereas there were gender differences in Quality, Confusion, Habit, and Endorsement. Interestingly, male Chinese online consumers had higher level of agreement than females. The results were not consistent with the study of Bae and John (2009) since they found male and female college-aged consumers had different

decision-making styles on Fashion, Impulse, and Brand. This may be because most males in China spend less time shopping than females and thus they choose products from high-quality well-known brands endorsed by celebrities. The female participants in China, on the other hand, usually hang out and go shopping with their friends who gave them advice. For this reason, female participants were more concerned about style and outfits and paid less attention to quality and endorsement.

Differences in Age

The majority (69.40%) of the sample were made up of young adults 25 years old or younger. These was probably because young adults, particularly students, spend more time browsing the sporting goods websites and were more interested in responding to the survey (with free prizes) than their older counterparts. Basically, the results of this study supported H₂ that there would be significant differences in the online purchasing styles among participants in different age groups. As seen from the results of this study, there were differences between those 25 years of age (“younger adults”) or younger and those older than 25 years old (“older adults”) in almost all the factors of the PSISP. Overall, older adults were more concerned with the brand and quality of sport products. On the other hand, younger adults were more concerned with price, fashion style, and celebrity endorsement; yet they were more confused by the variety of sporting goods.

According to the results of this study, marketers should develop different strategies for different age groups. For older adults, emphases should be placed on the brand and quality. These consumers believe that the higher the price, the better the quality and they can afford premium prices since they have better income levels. To maximize profits, marketers should target these consumers with high-end sport products.

On the other hand, younger adults were more sensitive to price and fashion. Though this age group did not have a very high income level, they had plenty of potential because of their population size. For example, the number of young adults between the ages of 20 and 24 years alone had already reached over 120 million, the highest percentage among all age groups in China (Shedlock, 2012). The buying potential would be much greater if teenagers were also included (i.e., an additional 200 million people). For these young adults, the products should be stylish and always new and fresh. As one marketer pointed out, a stylish T-shirt of under \$7 could easily make a profit of 28% (Dale, 2009).

Differences in Marital Status

In this study, the majority of the respondents (82.4%) were single. Since singles were mostly likely younger people, the results in this category were consistent with that of those in different age groups. It was hypothesized that there would be significant differences in the online purchasing styles between single and married participants, and H₃ was supported. Single and younger participants were more they concerned with fashion and style as well as celebrity endorsement than their older married counterparts. On the other hand, married participants had similar results to those older adults who were concerned more about the quality of sport products. For these reasons, similar marketing strategies could be applied to participants with different ages and marital status.

Differences in Income

According to the results of this study, the overwhelming majority (74%) of the respondents had a monthly income of no more than 4,000 RMB, which is a little above the national average of 3,500 RMB (Chen, 2012). In this study, it was hypothesized that there would be significant differences in the online purchasing styles among participants with

different income levels. The results showed that H₄ was accepted since the two low income groups were more concerned about price, fashion, and endorsement than their “richer” counterparts. As pointed out by Barthell and Waitt (2010), income had a strong effect on the shopping behavior of college students. Low income individuals need to spend more time on price comparison, pay more attention to advertisement, and the sales promotion from different brands and stores in order to find the best deal. No wonder the lower the income level of the participants, the higher their scores in the Confusion factor (i.e., they are more confused by handling too much information).

On the other hand, respondents with an income of 6,000 RMB or above put more emphasis on brand and quality of the products. In fact, probably only the consumers of these groups can afford name brand products in China. For example, a pair of Nike basketball shoes in China usually costs over 1,000 RMB (a weekly income of most participants in this study). For consumers in these income levels, they are willing to pay premium prices for high-end sport products. One thing that stood out among those who earned 10,000 RMB or more was their extremely high scores in the Habit factor. That means they would go to the same store over and over again and stick to the same brand(s) they liked. For this group of consumers, marketers should concentrate their efforts in establishing brand loyalty and in delivering the best customer service during the entire purchase process.

Differences in Profession

Based on the results of this study, well over half (65%) of the respondents were students; and they had higher mean scores on Fashion, Confusion, and Endorsement than their counterparts. On the other hand, non-students had higher mean scores than students in Quality, Brand, and Habit. All these indicated that H₅, which hypothesized that there would

be significant differences in the online purchasing styles among participants with different professions, was supported. Based on these results, marketers should develop different strategies for students and non-students. For students, the products should be inexpensive, yet stylish with a lot of variety. However, when targeting those non-students, emphases should be placed on brand and quality. Similar strategies to those recommended for older adults, high-end sport products with good quality should be developed for this market.

Conclusion

The majority of participants in this study were young male (74%) students who were single (82%) with below average income level. The participants in general were more likely to buy high quality brand name items that had the latest styles at nice department or specialty stores; they were perfectionistic, quality conscious consumers who were price-value conscious, comparison shoppers. In addition, they seldom got confused by a large selection. Male participants paid more attention to such factors as quality, confusion, habit, and endorsement. The older the consumers were, the more likely they were to want high-quality products. Older adults had higher brand and store loyalty. However, younger people were more likely to follow modern fashion, had more concern about price, and care more about endorsement. Participants who were single paid more attention to fashion, confusion, and endorsement; whereas quality and habit were more important for the married. Consumers with higher income levels were more concerned about quality and product brands, and had higher brand and store loyalty. Lower income consumers were more likely to care about price and more easily confused. While students were more concerned about fashion, price, confusion, and endorsement, non-students paid more attention to quality and brand names products, and would like to stick with the same brands and stores.

Limitations

As in any research study, limitations exist. Though the samples of this study came from subscribers of the two biggest Chinese sports and sporting goods websites, they might not be a good representative of all consumers in China who shop online for sporting goods. Samples from more sources should be selected in future studies. Other than that, the majority of participants for this study were between the ages of 21 and 25 years old (43%), followed by 18 to 20 years (26%), and 26 to 30 years (19%). In other words, 88% of the participants in this study are from those who were younger than 30 years old. This may not reflect the purchase styles of other older adults (e.g., over 30 years old) in China. In addition, more than half of the sample (52%) had an income of less than 2000 RMB. According to previous studies, different income levels (Haque et al., 2006) and age groups (Hashim et al., 2009) could have influence on the results of the study.

Other limitations also exist in other categories such as gender, marital status, and professions. The sample in this study did not distribute evenly across different income levels, age groups, gender, marital status, and professions, this may affect the reliability of the results. A better sampling method, such as the stratified random sampling, could be used in future studies so that a representative sample from each group can be selected. Of better still, a larger random selection could be made. In addition, the questionnaire in this study was developed using exploratory factor analysis based on one sample. The reliability of the questionnaire is not warranted until it has been validated. Future studies using confirmatory factor analysis on another sample is necessary.

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Appendix A

CHINESE ONLINE SHOPPER STYLE FOR SPORT PRODUCTS QUESTIONNAIRE

This survey is for the purpose of better knowing Chinese online shopper style for sport products. All information is strictly confidential and will only be used for research. Your sincere and honest replies are greatly appreciated. Please respond to **all** the questions by writing number from 1 to 5.

		How important is this to you?				
Your Answer	Quality	Least Important	Average	Most Important		
[]	1. High quality is very important for me	1	2	3	4	5
[]	2. When it comes to purchasing athletic clothing, I try to get high quality	1	2	3	4	5
[]	3. I usually try to buy the best quality athletic clothing	1	2	3	4	5
[]	4. I make special efforts to choose the best quality athletic clothing	1	2	3	4	5
[]	5. My expectations for athletic clothing I buy are very high	1	2	3	4	5
[]	6. I really don't give my purchases much thought or care	1	2	3	4	5
[]	7. I shop quickly, buying the first product or brand I find that seems good enough	1	2	3	4	5
[]	8. I carefully consider the material of athletic clothing	1	2	3	4	5
Your Answer	Brand	Least Important	Average	Most Important		
[]	1. The higher the price of the product, the better its quality	1	2	3	4	5
[]	2. Nice department and specialty stores offer me the best product	1	2	3	4	5
[]	3. I prefer buying the best selling product	1	2	3	4	5
[]	4. Advertised athletic clothing in window or catalog is usually good choices	1	2	3	4	5
Your Answer	Fashion	Least Important	Average	Most Important		
[]	1. I usually keep my wardrobe up-to-date with the changing fashions	1	2	3	4	5
[]	2. Fashionable and attractive styling is very important to me	1	2	3	4	5
[]	3. I usually have one or more outfits of the very newest style	1	2	3	4	5
[]	4. It's fun to buy something new and exciting	1	2	3	4	5
[]	5. For fashion, I shop different stores and choose different brands	1	2	3	4	5
Your Answer	Recreation	Least Important	Average	Most Important		
[]	1. I shop just for fun	1	2	3	4	5
[]	2. Going shopping is one of the fun activities for my life	1	2	3	4	5
[]	3. I make my shopping quickly	1	2	3	4	5
[]	4. I don't waste my time just for shopping	1	2	3	4	5
[]	5. Shopping is not a pleasant activity	1	2	3	4	5

Appendix A (Continued)

Your Answer		Least Important	Average	Most Important
	Price			
	1. I buy as much as possible at sale prices	1	2 3	4 5
	2. I usually choose the lowest price athletic clothing	1	2 3	4 5
	3. I save as much money as I can during shopping	1	2 3	4 5
	4. I usually use coupons to save money	1	2 3	4 5
	Impulse			
	1. I should plan my shopping more carefully than I do	1	2 3	4 5
	2. I am impulsive when I purchase athletic clothing	1	2 3	4 5
	3. Often I make careless purchases I later wish I had not	1	2 3	4 5
	Confusion			
	1. Many brands often make me feel confused when I shop	1	2 3	4 5
	2. Sometimes, it's hard to choose which store to shop	1	2 3	4 5
	3. All the information I get on different products confuses me	1	2 3	4 5
	4. The more I learn about athletics clothing, the harder it seems to choose the best	1	2 3	4 5
	Habit			
	1. I buy my favorite brands over and over	1	2 3	4 5
	2. Once I find a product or brand I like, I stick with it	1	2 3	4 5
	3. I go to the same stores each time I shop	1	2 3	4 5
	Endorsement			
	1. A celebrity endorser is very important to me	1	2 3	4 5
	2. Endorsed clothing is always positive	1	2 3	4 5
	3. I always choose clothing worn by celebrity athlete endorsers	1	2 3	4 5
	4. Celebrity athlete endorsers come to mind when I go to the athletic clothing store	1	2 3	4 5
	5. A celebrity athlete endorser is a very important part of decision-making when I shop	1	2 3	4 5
	6. I believe an athlete-endorsed product is greater than non athlete-endorsed product	1	2 3	4 5
		Fully Understood	Most of them, but just a few not sure	Only understood some of them
	Did you understand all the questions above?	1	2	3

Additional Comments:

Appendix A (Continued)

PLEASE PROVIDE THE FOLLOWING INFORMATION (ONE PERSON PER SURVEY)			
Your answer			
<input type="text"/>	What is your gender?	1. Male	2. Female
<input type="text"/>	How old are you?		
<input type="text"/>	Marital status?	1. Single	2. Married
<input type="text"/>	What is your income per month (RMB)?	1. Under 2000	2. 2000-4000 3. 4000-6000 4. 6000-10000 5. 10000+
<input type="text"/>	What is your profession?		

Thank you for your cooperation. Have a great day!