Consumer Decision-Making Styles for Singaporean College Consumers: An Exploratory Study

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Abstract

The purpose of this study was to investigate Singaporean consumers' decision-making styles (shopping styles) for sports products. This study used a scale of the Purchaser Style Inventory for Sport Products (PSISP) to identify if the scale was reliable. An instrument, consisting of 42 items under 9 dimensions, was administered to 234 college students in Singapore. This study computed data factor analysis and alpha coefficients for scale reliability. The results indicated the generality of some consumer decision-making styles. Some similarities and differences as well as managerial implications for marketing research will be discussed.

Keywords: Sports marketing, shopping styles

Consumers' decision-making styles (shopping styles) have become one of the most important and interesting areas in sport and business consumer-behavior studies. Many previous studies have shown that consumers frequently display consistent decision-making styles to direct their decision-making when they shop (Durvasula, Lysonski, & Andrews, 1993; McDonald, 1993; Evans, Christiansen, & Gill, 1996). Moreover, their decision-making styles are often altered by friends or relatives (Evans et al., 1996). Also, consumers generally demonstrate different shopping patterns due to differences in consumers' needs and wants as well as differences in personalities, attitudes, and economic situations. For example, some consumers may buy expensive brands or high-quality products, whereas others may buy inexpensively priced, non-brand, or even low-quality products. Therefore, many factors, such as brand, quality, price, habit, recreation, confusion, impulse, and fashion combine to determine an individual's unique shopping habits (Sproles & Kendall, 1986).

Since businesses are globalized, many researchers have focused consumers' decision- making studies nationally and internationally. Previous studies on consumer decision-making styles, in general, have tested young populations and have been conducted in a wide range of countries: New Zealand (Durvasula et al., 1993); China (Fan & Xiao, 1998; Hiu, Siu, Wang, & Chang, 2001); Korea (Hafstrom, Chae, & Chung, 1992); Greece, India and New Zealand (Lysonski, Durvasula, & Zotos, 1996); the United States (Sproles & Kendall, 1986); Hong Kong (Tai, 2005); and Germany (Walsh & Vincent, 2001). These studies showed that most consumers have different kinds of decision-making styles relating to shopping factors. According to the aforementioned studies, it can be said that a study of consumers' decision-making styles is very important to consider when attempting to identify and understand the consumers' shopping behavior and motivation, especially in the apparel market.

Consumer Behaviors in Singapore

National and international marketing and advertising companies have been focusing on the global youth market because the market size, homogeneity and purchasing power have been growing (Ferle & Chan, 2008). Currently, Singapore is one of the top ten wealthiest Asian countries (Wikipedia. org, 2009). However, a study of consumer decision-making styles in Singapore has rarely been treated as an important issue in a sport area. During 2005, almost 9 million foreigners visited Singapore from Africa, North and South America, Europe, East/Oceania Asia, Southern Asia, and Western Asia (United Nations, 2007). According to the results of the National Sports Participation Survey in 2005 (Singapore Sports Council, 2005), just over 40% of the population participating in sporting activities are female, and almost 60% are male. In addition, about 70% of those in the 15-19 age group regularly participate in sport activities, while the 20-39 age group has increased to 38% from 2001. The younger group, ages 15 to 24 are the main consumers of branded goods (Tai & Tam, 1996).

According to Giges (1991), consumers around the world ages 14 to 34 showed similar lifestyles and consumption behaviors in soft drinks, beer and footwear. Specifically, many young business markets have been treated as an important target market for products and social ideas in Asia (Leong, 2000; Nugent, 2006). Of the 2 billion consumers aged between 10 and 24, almost 1 billion are Asian (Nugent, 2006). Singapore is one of the top-10 wealthiest countries in the world with regard to per capita income in 2009, which was US $50,300 (Central Intelligence Agency, 2009), as well having one of the busiest ports in the world (Wikipedia. org, 2009). Besides, Singapore is following the pattern of many western style industrialized counties, since it has been affected by various countries, due to its strategic location in Asia (Tai & Tam, 1996). Within this region, Singapore is an important market with its strong economy, central location, and the presence of international companies (Milligan, 2004).

The population of Singapore has reached almost 5 million including non-residents (Wikipedia.org, 2009). Of those, more than 500,000 people are between 15 to 24 years old (Singapore Department of Statistics, 2009). Because they have high disposable income from parents, grandparents, and part-time jobs (Marti, 1998; Wang 2006), they are seen as a major consumer of branded goods. With these generous allowances, they place a high value on image and their lifestyles are being augmented with special goods (Tai & Tam, 1996). Young, Singapore consumers are spending almost $180 million annually without their parents support (Leong, 2000). Marti (1998) found that they are mostly interested in purchasing clothes, followed by jewelry and computer software with their pocket money. Among those purchasing items, many spent more than $70 on a single piece of clothing (Wong, 1998).

The lifestyle of Singaporean consumers is typically home-oriented, family-oriented, and focused on environmental concerns. Moreover, they are satisfied with their current job, pursue a

higher degree of education, show a positive relationship and attitude toward current advertising, and are interested in higher quality products, rather than price (Tai & Tam, 1996). According to AC Nielsen (2007), advertising expenditures in Singapore reached almost $1.4 billion in 2006. Due to the effectiveness of advertising in the Singapore market, young-adult consumers are closely bound to the mass media. Tai and Tam (1996) mentioned that they are socially conscious and care about the well-being of society. In fact, female Singapore consumers are affected by family members or friends during shopping. Not only do peers have an effect on their friends' preference for store selection, brand product selection, mass media and television programming (Ferle & Chan, 2008), they also like to undertake social comparison of possessions and are materialistic (Chan & Zhang, 2007). Through the powerful emotions and favorable attitudes toward media (La Ferle & Choi, 2005), young consumers prefer to follow celebrity idols (entertainers or famous athletes) and their idealized self-image (Ferle & Chan, 2008; Lafferty & Goldsmith, 1999). Ferle & Chan (2008) found that there were positive correlations between advertising and perceptions. Moreover, young consumers are willing to purchase impulse items (Wang, 2006) and to desire more fashion brands of western origin than of eastern origin (O'Cass & Lim, 2002). Therefore, the purpose of this study was to identify Singaporean consumers' shopping styles for sport products with the PSISP scale. This study was consistent with the stream of research that addresses cross-cultural generalization of consumer shopping behavior measurements and procedures (see Bae, Lam, & Jackson, 2009).

Theoretical framework

As modern individual decision-making styles are more complex and more important for individual consumers than in the past (Hafstrom, Chae, & Chung, 1992), many national and international studies have focused on identifying general decision-making styles (Durvasula et al., 1993; Hafstrom et al., 1992; Hiu et al., 2001; Shim & Gehrt, 1996; Sproles & Kandall, 1986; Walsh, Mitchell, & Hennig-Thurau, 2001; Tai, 2005) as well as discovering specific shopping styles for sports products (Bae et al., 2009; Bae & Miller, 2009). Each dimension in consumer decision-making styles explains individual consumer's shopping choices or purchasing behaviors. According to Bae et al. (2009), these dimensions are an important concept in consumer decision-making styles, especially when relating to the shopping behaviors of sports products.

Most previous studies used a scale of Consumer Style Inventory to find individual consumer-decision making styles for general products. The scale was originally modified from the Consumer Style Inventory (CSI) developed by Sproles and Kendall (1986). The scale of Sproles and Kendall approached three different ways to characterize consumer styles: "the psychographic/lifestyle", "the consumer typology" and "the consumer characteristics approach" (p. 268). Of these approaches, the consumer character approach is one of the most important, defining the mental orientation of consumers in making decisions. Finally, Sproles and Kendall defined 40 items under eight central decision-making dimensions: Perfectionism/high-quality, Brand, Novelty-fashion, Recreational/hedonistic, Price/value for the money, Impulsiveness, Confusion by overchoice, and Habitual/ brand-loyal consciousness.

To identify individual consumer's decision-making styles for sport products, Bae et al. (2009) developed a scale of the Purchase Style Inventory for Sport Products (PSISP). One dimension, endorsement consciousness, was added in the scale. Celebrity endorsements have an apparent effect on consumer's decision making because of recognition and trust (Brooks & Harris, 1998; McCracken, 1989). As a celebrity has an ability to assist consumers in identifying products, celebrity endorsements have been used as a form of advertising in mass media (Bearden, Ingram, & Forge, 1998). Even though celerity endorsement is an important factor in making decisions, previous studies did not apply or treat celebrity endorsement as an important issue. Through two different reliability tests with two different samples, Bae et al. (2009) defined the celebrity-endorsement consciousness as an important dimension in a consumer shopping behavior study in sports. Finally, PSISP is composed of 42 items 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) consciousness, explaining a total variance of 54.22%.

A previous study focused on college consumers' decision-making styles for sports apparel (Bae & Miller, 2009). After the authors performed a reliability test with a modified CSI model on American college students (N=822), they found 27 items under seven dimensions: brand (6 items), quality (4 items), recreation (5 items), confusion (3 items), impulse (3 items), fashion (4 items), and price (2 items) consciousness. The Cronbach's alpha coefficients for quality ($\alpha = .91$), recreation ($\alpha = .85$), confusion ($\alpha = .76$), fashion ($\alpha = .79$), price ($\alpha = .66$), and brand ($\alpha = .87$) consciousness indicated satisfactory levels of reliability. However, impulse consciousness dimension ($\alpha = .45$), showing low reliability with the alpha coefficient, indicated an unsatisfactory level of reliability on consumer shopping characteristics. Even though previous authors (Brooks & Harris, 1998; Pitts & Stotlar, 2002; Veltri, 1996) discussed how the importance of celebrity endorsers affects consumers' decision-making, the previous study (Bae & Miller, 2009) did not apply a celebrity endorsement dimension. Besides, little attention has been given to apply consumers' decision-making styles in sports products nationally and internationally.

Method
Participants
The population consisted of students attending a large university in western Singapore. Of the total 234 participants, 183 were deemed as usable data after excluding 51 questionnaires due to incompleteness and non-citizenship. This provided a 78% response rate. Specifically, a breakdown of participants by gender is composed of 75% male (N= 137) and 25% female (N=46). Moreover, the majority of participants were between the ages of 22 and 25 (72.1%), followed by 18 and 21(13.7%), 26 and 30(9.8%), & non-specified ages (4.4%). For reasons of sample homogeneity, the authors intentionally selected college student samples. According to Calder, Phillips and Tybout (1981), using a relatively homogeneous group minimizes random error that might occur by using a heterogeneous sample such as the general public.

Using a convenience sampling method, the samples were recruited from various colleges within the university, such

as the National Institute of Education, Schools of Chemical & Biomedical Engineering, and the School of Mechanical & Aerospace Engineering during the fall semester of 2009. After receiving lecturers' approval, one of the authors attended each class and explained the purposes of the study and the procedures of data collection. The participants were informed that there were no right or wrong answers, assured of the confidentiality of their responses, and encouraged to ask questions if necessary. The participants were also informed that they were allowed to withdraw from taking part in the survey any time they chose. The research procedures for the study were cleared by the university ethical review committee.

Instrument

The questionnaire consisted of two different sections: PSISP developed by Bae et al. (2009) and demographic questions. Since the samples in Singapore were fluent in the English language, there was no translation needed for the questionnaire. The instrument in the first section contained 42 Likert-scale items scored from 1 (Strongly Disagree) to 5 (Strongly Agree) under nine shopping conscious 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 consciousness (6 items). The analysis employed statistical procedures identical to those dimensions used by Bae et al. (2009). To identify dimensions of the PSISP, Bae et al. used two different reliability tests with two different samples to discover a better scale. From the two different tests, they found similar results. Of those results, the authors decided to keep 42 items under nine dimensions for the PSISP scale. The second part of the questionnaire consisted of 10 questions, providing data concerning the demographics of respondents. The demographic questions addressed nationality, gender, age, ethnicity, marital status, income sources, store preference, major information source, shopping companion, and brand preference. All demographic questions were administered as open-ended questions.

Data analysis

The analysis of this study was very similar to Bae et al. (2009). To examine the applicability of the instrument, this study performed item reduction (factor analysis) and computed scale (reliabilities of each dimensions) from PASW Statistics 17.0 package for Windows. According to Gerbing and Anderson (1988), the dimensionality of the scale was examined by examining the factor solution. The method of factor analysis was used with the principle component analysis with varimax rotation (Kim & Mueller, 1978). Then, the Cronbach Alpha Coefficiency Test was performed to identify the reliability of the items. After performing the first test, descriptive analysis for Singaporean consumers' decision-making styles for sports products was carried out to explain nationality, gender, age, ethnicity, marital status, income sources, store preference, major information source, shopping companion, and brand preference.

Results

The frequencies and percentages of summary for demographic characteristics are displayed in Table 1. In this study, Chinese-Singaporean (89.6%) had more dominant participation than Malaysian-Singaporean (4.9%), Indian-Singaporean (3.3%) or

other (2.2%). Most participants were single (96.2%), followed by married (3.3%) and divorced (0.5%). Generally, over 50% of students said they receive their personal expenses from their parents. The rest of students responded that they receive their money via a part-time job (13.7%), a scholarship (7.1%), a full-time job (6.6%) or others (22.4%) who did not indicate their income. The participants were more likely to visit specialty stores (47%) than sporting goods stores (28.4%) or department stores (17.5%). To find product information for sports products, the students preferred to use the Internet (40.7%), followed by magazines (18.6%), television (18%), newspapers (6%), and others (7.7%) who did not indicate their source. With respect to shopping companions, they indicated that they shop with their friends (72%), by themselves (21.9), with their parents (3.8%) and other (2.2%). Lastly, they also showed that their favorite brands were Adidas (47%), Nike (24%), no preference (17.5%), and others (11.5%) such as Puma, New Balance and Oakley.

Table 1. *A summary of the Demographic Characteristics of Singaporeans*

Demographic Information		Frequency	Percentage
Ethnicity	Chinese	164	89.6
	Malaysian	9	4.9
	Indian	6	3.3
	Other	4	2.2
Marital status	Single	176	96.2
	Married	6	3.3
	Divorced	1	0.5
Income source	Full-time	12	6.6
	Part-time	25	13.7
	Scholarship	13	7.1
	Parent(s)	92	50.3
	Other	41	22.4
Store preference	Department	32	17.5
	Discount	5	2.7
	Specialty	86	47.0
	Sporting goods	52	28.4
	Other	8	4.4
Information source	Television	33	18.0
	Magazine	34	18.6
	Newspaper	11	6.0
	Internet	91	49.7
	Other	14	7.7
Shopping preference	Parent(s)	7	3.8
	Friend (s)	132	72.1
	Alone	40	21.9
	Other	4	2.2
Brand Preference	Adidas	86	47.0
	Nike	44	24.0
	Others	21	11.5
	None	32	17.5

Exploratory Factor Analysis (EFA) was performed to identify Singaporean consumer shopping dimensions. Items loading 0.5 or higher on each dimension were reported. The results of a principal component factor analysis with varimax rotation are depicted in

Table 2. From this analysis, 35 item-loadings, arranged from 0.58 to 0.91 under nine factors, emerged after analyzing the 42 items. Nine dimensions with eigenvalues greater than unity were generated. Those that met the Kaiser criterion accounted for 68.49% of total variance. After inspecting the factor solution and the item loading, seven items (item 6 and 7 from Quality, item 4 and 5 from Fashion, and item 1, 2 and 5 from the Recreation dimensions) were removed from original PSISP scales. Those items exhibited

Table 2. *Factor Loading of Singapore Samples*	
Consciousness	**Loading**
Quality	
1. High quality is very important for me.	0.71
2. When it comes to purchasing athletic clothing, I try to get the high quality.	0.83
3. I usually try to buy the best quality athletic clothing.	0.91
4. I make special effort to choose the best quality athletic clothing.	0.91
5. My expectations for athletic clothing I buy are very high.	0.78
8. I carefully consider material of athletic clothing.	0.58
Brand	
1. The higher price of the product, the better its quality.	0.70
2. Nice department and specialty stores offer me the best product.	0.69
3. I prefer buying the best selling product.	0.72
4. Advertised athletic clothing in window or catalog is usually good choices.	0.65
Fashion	
1. I usually keep wardrobe up-to-date with the changing fashions.	0.83
2 Fashionable and attractive styling is very important to me.	0.73
3. I usually have one or more outfits of the very newest style.	0.86
Recreation	
3. I make my shopping quickly.	0.86
4. I don't waste my time just for shopping.	0.85
Price	
1. I buy as much as possible at sale prices.	0.65
2. I usually choose the lowest price athletic clothing.	0.77
3. I save money as much as I can during shopping.	0.77
4. I usually use coupon to save money.	0.61
Impulse	
1. I should plan my shopping more carefully than I do.	0.72
2. I am impulsive when I purchase athletic clothing.	0.74
3. Often I make careless purchases I later wish I had not.	0.72
Confusion	
1. Many brands often make me feel confused when I shop.	0.81
2. Sometimes, it‚Äôs hard to choose which store to shop.	0.80
3. All information I get on different products confuses me.	0.84
4. The more I learn about athletic clothing, the harder it seems to choose the best.	0.73
Habit	
1. I buy my favorite brands over and over.	0.88
2 Once I find a product or brand I like, I stick with it.	0.87
3. I go to the same stores each time I shop.	0.76
Endorsement	
1. A celebrity endorser is very important for me.	0.87
2. Endorsed clothing is always positive.	0.81
3. I always choose clothing worn by celebrated athletic endorsers.	0.81
4. Celebrated athletic endorsers come to mind when I go to the athletic clothing store.	0.72
5. A celebrity athletic endorser is a very important part of decision-making when I shop.	0.86
6. I believe an athletic-endorsed product is greater than non athletic-endorsed product.	0.74

relatively low loading ($\alpha < 0.4$; the same criterion was used for the U.S. sample), indicating that they are relatively poor measures of the corresponding factors. Consequently, 35 variables loaded on one of the nine statistically resolved dimensions without double loading: Quality (6 items), Brand (4 items), Fashion (3 items), Recreation (2 items), Price (4 items), Impulse (3 items), Confusion (4 items), Habit (3 items), and Endorsement (6 items). The results seemed to indicate that some of the items are not applicable in describing shopping styles in Singapore. Those items may not be able to tap any single construct and, therefore, could be removed in further scales purification processes (Gerbing & Anderson, 1988).

Table 3 displayed the internal consistency tests of scale reliability. According to Table 3, reliability alpha coefficients for each dimension ranged from 0.68 to 0.91 in the Singapore sample. They were considered modest and acceptable for an exploratory study (Cronbach, 1951; Nunnally, 1978). Cronbach's alpha coefficient was used to assess the internal consistency among the set of items on each dimension. It was apparent that six out of eight dimensions such as Brand, Price, Impulse, Confusion, Habit and Endorsement consciousness were the most stable dimensions, when comparing Singapore data to the U.S., as most of the items explaining these dimensions loaded on correct dimensions. However, Quality ($\alpha=0.89$) and Recreation consciousness ($\alpha=0.75$) dimensions in the Singapore sample exhibited much higher coefficient alpha than dimensions ($\alpha=0.59$; $\alpha=0.35$) in the American study, suggesting that those two scales might be affected by cultural differences or different economic situations. Therefore, the two dimensions should need further improvement due to unstable reliability scores.

Table 3. *A Comparison of the Alpha Reliability of Singaporean and American Samples*		
Dimension	Singaporean	American
Quality	0.89	0.59
Brand	0.78	0.74
Fashion	0.85	0.81
Recreation	0.75	0.35
Price	0.68	0.64
Impulse	0.67	0.63
Confusion	0.84	0.80
Habit	0.79	0.65
Endorser	0.90	0.92

Discussion

This study identified Singaporean consumers' shopping styles based on the Purchaser Style Inventory for Sport Products (PSISP) scale. The final version of PSISP for Singaporean data comprised 35 items under nine dimensions: Quality (6 items), Brand (4 items), Fashion (3 items), Recreation (2 items), Price (4 items), Impulse (3 items), Confusion (4 items), Habit (3 items), and Endorsement (6 items) consciousness. Construct reliability indicated that all consciousness dimensions for this study were at an applicable level of reliability. Also, this study showed that the total variance of the Singaporean shopping style study explained 68.49%, whereas total variance of previous studies accounted for 54.22% (Bae et al., 2009). The previous study (Bae et al., 2009) also displayed low reliability on recreation from sample one and quality consciousness dimension from sample one and two. However, the current study

showed higher reliability scores of quality and recreation than previous studies such as the American study (Bae et al., 2009) and the Indian study (Lyonski et al., 1996). The items loading on each dimension are quite similar even though they are not exactly the same from the previous study (Bae et al., 2009).

Item 6 and 7 were removed from the Quality Consciousness dimension. The item 6 "I really don't give my purchases much thought or care" and item 7 "I shop quickly, buying the first product or brand I find that seems good enough" had loaded negatively on the dimension. Due to the cultural differences between Singapore and America, young-adult Singaporeans possibly interpret different ways to understand these questions as well as they might think the brands represent better quality. Moreover, these questions might be related to impulse or recreation consciousness items because product quality represents better brand and price in their culture (Sproles & Kendall, 1986). According to Fan and Xiao (1998), quality information in some countries such as Korea and the U.S. might be a more important consideration factor than another country such as China. Therefore, they might not carefully answer those two items.

Item 4 "It's fun to buy something new and exciting" and 5 "For fashion, I shop different stores and choose different brands" were removed from the fashion consciousness dimension. Item 4 was displayed in quality consciousness dimension in the China study (Fan & Xiao, 1998) as well as the Korean study (Hafstrom et al., 1992). Moreover, Item 5 was shown in habit consciousness dimension in the Korean study and the New Zealand Study (Durvasula et al., 1993). Since many young-adult consumers in Singapore receive an allowance from their parents, they may not waste their money on buying new stuff while shopping. Therefore, these two questions might be unstable items in making decisions in Singapore because these items were relatively low loaded.

Lastly, item 1 "I shop just for fun", item 2 "Going shopping is one of the fun activities for my life" and item 5 "Shopping is not a pleasant activity" were removed from recreation consciousness dimension. Young-adult Singaporean consumers might not consider shopping as a recreational activity because their lifestyle might be too busy or they may not have enough time to shop just for fun. In previous studies of Chinese consumer decision-making styles (Fan & Xiao, 1998), fashion and recreation consciousness items were moved to the quality and time consciousness dimension. Also, the recreation dimension was removed from the German study (Walsh et al., 2001) as well as was transformed to time consciousness in the Chinese study (Fan & Xiao, 1998). Therefore, those aforementioned items might be inaccruable and unstable questions in the Singaporean culture.

Due to different cultures, economic structures, political situations, and social systems, sports marketers need to investigate and understand individual consumers' shopping behaviors among different countries. While young Singaporean consumers have more generous allowances and incomes from parents and perhaps a part-time job, they might be familiar with or might feel a strong attraction to brand names. Besides, they are willing to purchase celebrity idols' props for their self-images (Lafferty & Goldsimth, 1999; Ferle & Chen, 2008) due to high disposable income (Wang 2006). Specifically, as the consumers have a positive relationship and attitude toward mass media and media celebrity (La Ferle & Choi, 2005), sports marketers, therefore, should find the right celebrity athlete for young-adult Singaporean consumers to promote specific goods and services through mass media: Internet, television, or magazine.

Since Singaporean young adults are home and family-oriented, they might be affected or recommended about their purchases by their parents before and during shopping. As a result of this study, on the contrary, they prefer to go shopping with their friends, so they may be influenced by their friends when they are selecting a product. Moreover, they like to use specialty and department stores for sports products. With that result, sport marketers might need to display attractive athlete endorsers on flyers, on television or in store entrances or store windows so they can be attracted to the products. Not only did young-adult Singaporean consumers collect useful product information from television or magazines, they also prefer to discover knowledge from the Internet since the Internet has indeed contributed to the globalization of sports (Ch'ng, Kwon, Pyun, & Chew, 2009). While mobile technology has been approached to young-adult consumers as a large repetitive market, the company might also develop a precise promotion through the e-sport business marketing. In particular, the speed, color, or size of the word in the business might be considered, as a mobile phone consumer operates on a small screen. Accordingly, sport apparel companies should be more focused on e-business with pop-up advertisements or email advertisings on the Internet and mobile phones.

Conclusion

This study focused on identifying young-adult Singaporean consumers' shopping behaviors for sports product. As young-adult consumers become more aware of sports, the participation rates have been raising almost 54%, which account for 38% of the growth rate from 2001 (Singapore Sports Council, 2005). The finding of this study might be useful to sports marketers who extend the coverage of their products to Singapore. Especially, demographic information might be helpful to understand various consumer segments and to develop target positioning with specific marketing strategies.

Managerial Implication and Limitations

Information found in this study will be useful for corporations targeting the young-adult Singaporean consumer market. Even though Singapore is one of the top ten wealthiest countries among Asian countries, a study of consumer decision-making styles has rarely been treated as an important issue in the sports marketing arena. Also, as sports continue to become globalized, sport marketers should focus on targeting the international market. Especially, national and international marketing and advertising companies have been interested in global youth markets due to the growth of the market sizes, homogeneity and purchasing powers. Therefore, this study will provide a meaningful way to identify and understand young-adult Singaporean consumers' shopping behaviors. Furthermore, this study will help international sports marketers develop marketing segmentation, targeting and positioning in Singapore.

The finding of this study also helps consumer researchers and educators understand more clearly about young-adult Singaporean

shopping behaviors. As previous studies mentioned, shopping characteristic dimensions are important areas in consumer decision-making styles. Therefore, this study may be used as a guideline of consumer decision-making styles in Singapore consumer education. This study can also be used as a conceptual background for consumers in the future relating to the shopping behaviors of sports products.

This study has several limitations however. First, this study only used one university in Singapore to define college consumers' shopping styles for sports products whereas a previous study (Bae et al., 2009) used three different school samples to find different shopping styles. Therefore, further studies are needed to analyze and treat specifically with different populations. Second, as the questionnaire was developed from American college consumers, some dimensions or items may not be applied to identify individual consumer's shopping styles in Singapore because of the cultural and economic differences among the two countries. Therefore, future studies are needed to develop new items and dimensions in order to improve the PSISP scale. Lastly, young-adult Singaporean consumers prefer to use the Internet for sports product information according to the results of the study. Since Internet popularity has been growing, finding an Internet shopper's characteristics would be very important when developing Internet marketing strategies and products, considering e-commerce growth. Therefore, a study of Internet consumers' shopping characteristics should be conducted in the future.

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