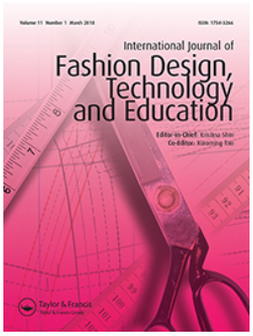

International Journal of Fashion Design, Technology and Education

ISSN: 1754-3266 (Print) 1754-3274 (Online) Journal homepage: www.tandfonline.com/journals/tfdt20

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To cite this article: Osmud Rahman, Benjamin C. M. Fung, Zhimin Chen, Wei-Lun Chang & Xiang Gao (2018) A study of apparel consumer behaviour in China and Taiwan, International Journal of Fashion Design, Technology and Education, 11:1, 22-33, DOI: 10.1080/17543266.2017.1298158

To link to this article: https://doi.org/10.1080/17543266.2017.1298158

Published online: 13 Mar 2017.

INTERNATIONAL JOURNAL OF FASHION DESIGN, TECHNOLOGY AND EDUCATION, 2018
VOL. 11, NO. 1, 22–33
https://doi.org/10.1080/17543266.2017.1298158

A study of apparel consumer behaviour in China and Taiwan

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ABSTRACT

To better understand consumer behaviour and preferences for apparel shopping in Asia, we collected data through questionnaire surveys in China and Taiwan on three topics: online and offline shopping behaviours; product evaluative criteria; and fashion information sources. The study showed that women in both China and Taiwan shopped more frequently than men. Chinese consumers shopped more frequently online than did their Taiwanese counterparts. Both Chinese and Taiwanese consumers cited 'fit' and 'comfort' as the two most important evaluative criteria for clothing, while 'brand name' and 'country of origin' were the least important cues. Both Chinese and Taiwanese participants cited 'friends' as their most important fashion information source, with 'siblings' and 'parents' being the two least important sources.

ARTICLE HISTORY
Received 28 September 2016
Accepted 18 February 2017

KEYWORDS
Consumer behaviour; apparel attributes; product choice; fashion innovativeness; cross-national study

1. Introduction

According to the Economist Intelligence Unit (2014), Taiwanese consuming power is expected to grow from US$324.1 billion in 2013 to US$370.0 billion in 2018. The Ministry of Economic Affairs reports that retail sales in Taiwan increased 0.42% year-on-year in October of 2016. The current economic growth in Taiwan is partly due to the increase of tourists from mainland China since the signing of the Economic Cooperation Framework Agreement (ECFA) in 2010. In addition to retail sales, e-commerce in Taiwan has experienced tremendous growth as a result of high internet penetration and the widespread use of smartphones.

In China, the gross domestic product (GDP) growth rate was 6.9% in 2015 (National Bureau of Statistics of China, 2016). The total retail sales of consumer goods increased from RMB10.8 or US$1.56 trillion in 2008 to RMB20.7 or US$3.00 trillion in 2012. According to a report published by China Internet Watch (2016), China is expected to surpass the U.S. to become the world's largest consumer market. Moreover, China is the largest e-commerce market, with total sales of US $899 billion in 2016, which is almost half of total global e-commerce sales.

Due to the sound and steady economic growth in Taiwan and China (Fung Business Intelligence Centre, 2014; National Bureau of Statistics of China, 2016), it is imperative for both domestic and multinational retailers to understand Taiwanese and Chinese consumers, with a view to developing appropriate products and effective strategies to meet their needs and aspirations. Although the GDP per capita of Taiwan (US$46,783.00) was substantially higher than that of mainland China (US $14,107.43) in 2015 (International Monetary Fund, 2016), China has undergone significant economic transformation (Lu, 2004; Rahman, Jiang, & Liu, 2010) due to the globalisation and the advancement of communication technology. It is reasonable to believe that the changing socio-economic landscape in China could play an influential role in reducing the inequality between China and Taiwan. However, relatively few empirical studies (e.g. Goldsmith, Freiden, & Kilsheimer, 1993; Rahman et al., 2010) have examined this research topic, particularly from the 'Greater Chinese' perspective.

Our research seeks to enrich our understanding of consumer preferences and behaviours in two different socio-economic contexts. China and Taiwan demonstrate significant differences in their social, political and economic conditions (Hofstede, 1984; Rahman et al., 2010) but they also share many similarities, and this is why we chose these two markets for our study.

The remaining portion of this paper is organised as follows. We review previous literature related to consumer shopping behaviour and demographics (gender and age), the significance of fashion information sources

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and the role of product evaluative cues. Our proposed research questions are also included. Research methodology and discussions of the results are presented in the following two sections respectively. This is followed by the conclusion and implications, and in the final section, limitations and further research are reported and suggested.

2. Literature review and research questions

2.1. Demographics

Many studies have investigated the impact of demographic variables such as gender, age, education, income level and family size on consumer behaviour (Bakewell & Mitchell, 2006; Lee, Ibrahim, & Hsueh-Shan, 2005; Noble, Griffith, & Adjei, 2006; Wilhelm & Mottner, 2005). In particular, gender and age have been identified as important factors in many consumer research studies (Campbell, 1997; Chen-Yu & Seock, 2002; Seock & Bailey, 2008). For example, Bohdanowicz and Clamp (1994) pointed out that gender is a significant factor affecting an individual's choice of clothing, and Behling (1985–1986) suggested that age plays a critical role in the fashion adoption process. Therefore, the present study was primarily focused on these two demographic variables: gender and age.

2.1.1. Gender and apparel shopping behaviours – frequency and time spent

A study conducted by McCracken and Roth (1989) showed that women were significantly more astute than men in decoding and interpreting the syntax of clothing. Many studies (Chen-Yu & Seock, 2002) have revealed that female consumers shopped significantly more often, and spent more money, on clothing than males. Hart, Farrell, Stachow, Reed, and Cadogan (2007) found that female shoppers visited more stores during a single shopping excursion than men, and that many women enjoyed shopping because they viewed it as a leisure activity and a means for self-gratification.

However, according to more recent research studies (Ross, 2011; Seo, 2009; Sindicich & Black, 2011), men are becoming increasingly more involved with fashion. Today's male consumers are more fashion conscious and concerned with their appearance than were men in previous generations. A study on fashion consciousness (Parker, Hermans, & Schaefer, 2004) found that while female American and Japanese teenagers tended to be more fashion conscious than males, this gender effect did not apply to the Chinese sample. According to our literature review, the results of research into gender effects are inconclusive among studies and across nations. Due to insufficient literature and inconclusive findings, research questions rather than hypotheses were put forward for the current study.

The following research questions were posed to further investigate the effects of gender on apparel shopping behaviours:

RQ1a: What effects does gender have on the frequency and time spent on apparel shopping at brick-and-mortar stores in China?

RQ1b: What effects does gender have on the frequency and time spent on apparel shopping at brick-and-mortar stores in Taiwan?

2.1.2. Gender and online apparel shopping behaviours

A number of studies into online shopping behaviours (Kim & Kim, 2004; Van den, Poel, & Buckinx, 2005, Wells & Chen, 1999) have shown that gender is an important demographic variable. Men are more interested in learning and navigating computer technologies and have become more involved in downloading and making online purchases than women (Dholakia & Chiang, 2003; Teo, 2001; Van Slyke, Comunale, & Belanger, 2002). Several studies (e.g. Allen, 2001; Kwak, Fox, & Zinkhan, 2002) have also found that men are more likely to spend more money and make a higher number of online purchases than women. A study of gender and e-commerce (Rodgers & Harris, 2003) revealed that more men than women perceived online shopping as an extremely convenient shopping mode, and had greater trust for this process.

However, other studies have found that gender has no effect on online shopping behaviour (Hernández-Ortega, Jiménez-Martinez, & Martin DeHoyos, 2011; Khare, 2016). In addition, a study of gender differences on information searches and purchase behaviours indicated that female college students had more online apparel shopping experience than did men (Seock & Bailey, 2008). This could be partly due to the fact that female consumers have a greater clothes consciousness and interest in fashion than do their male counterparts (Beaudoin, Lachance, & Robitaille, 2003; Pentecost & Andrews, 2010).

RQ2a: What effects does gender have on the frequency and time spent with online shopping in China?

RQ2b: What effects does gender have on the frequency and time spent with online shopping in Taiwan?

In order to gain an understanding of the differences between male and female consumers from a cross-national/regional perspective, we posed the following question:

RQ3: What are the differences between China and Taiwan regarding the effects of gender on the frequency and time spent of online and offline apparel shopping?

2.1.3. Age and apparel shopping behaviours – frequency and time spent

In North America, consumers in their 20s to 40s seem to be the most economically active, and they are more likely to be involved with, and to spend more money on, new clothes than other age groups (Workman & Studak, 2006). Debnam and Svinos (2007) found that Chinese consumers in their teens and 20s were more inclined to spend than to save as compared to their older demographic cohorts. Indeed, younger Chinese women are relatively highly sophisticated and fashion conscious, and many are willing to pay a higher price for imported goods and foreign brands (Lee, Yau, Chow, Sin, & Tse, 2004). A study conducted in the UK (Birtwistle & Moore, 2006) found that consumers between 16 and 24 years of age purchased new clothes more frequently than did other age groups, and this study also reported that the purchase rate declined as consumers aged. With this discussion, it is reasonable to suggest that age is associated with a consumer's shopping behaviour. Therefore, the following research questions regarding the effects of age were posed for this study:

RQ4a: What effects does age have on the frequency and time spent on apparel shopping at brick-and-mortar stores in China?

RQ4b: What effects does age have on the frequency and time spent on apparel shopping at brick-and-mortar stores in Taiwan?

2.1.4. Age and online apparel shopping behaviours

In terms of online shopping, several studies (Allred, Smith, & Swinyard, 2006; Mafé & Blas, 2006) indicate that age is a significant variable. Sorce, Perotti, and Widrick (2005) reported that younger consumers searched for more products online than did their older counterparts. According to other studies (McFarland, 2001; Yang & Folly, 2008), age is a critical factor affecting consumer technology adoption, usage and acceptance. However, some recent studies (Hernández-Ortega et al., 2011; Khare, 2016) have reported that demographic factors such as age have no effect on online shopping behaviours. Khare (2016) suggests that online shopping behaviour is influenced more by the frequency of Internet usage than by the age of the consumer. The findings from previous research are inconsistent and inconclusive; therefore, we raised the following questions for further investigation:

RQ5a: What effects does age have on the frequency and time spent of online apparel shopping in China?

RQ5b: What effects does age have on the frequency and time spent of online apparel shopping in Taiwan?

RQ6: What are the differences between Chinese and Taiwanese consumers regarding the effects of age on the frequency and time spent of online and offline apparel shopping?

2.2. Fashion information-seeking behaviours

Individuals often search for information from both internal and external sources. Internal information sources about a product include the consumer's memory, knowledge and past experience. External information sources have been classified as personal/non-marketer-dominated sources (e.g. friends, parents) and impersonal/marketer-dominated sources (e.g. printed media, television commercials) (Barber, Dodd, & Kolyesnikova, 2009; Seock & Bailey, 2009). Consumers tend to rely more heavily on external information sources: (1) when they evaluate a new or unfamiliar product; (2) if they do not have adequate knowledge about the product; or (3) when they lack confidence nor ability to evaluate similar alternatives. In this context, the present study primarily focused on external information sources.

Several prior studies (e.g. Lee, 2014) show that both experts and novices engage in information-seeking behaviours. Experts or experienced shoppers often acquire product-related information to update and bolster their knowledge as well as to reduce their dependence on others (Bettman & Park, 1980). Pre-purchase information-search activities may help consumers to identify a desirable product, enhance their buying decision and/or reduce uncertainty. However, due to the overwhelming amount of available information, consumers are unlikely to conduct a fully comprehensive search or gather product information from every available source. Thus, it is not difficult to understand why consumers often use convenient or their preferred sources for seeking information. In order to discover which information source is most important or more frequently used by consumers in China and Taiwan, the following research questions were posed:

RQ7a: What fashion information sources play a more significant role in China?

RQ7b: What fashion information sources play a more significant role in Taiwan?

RQ7c: What are the differences in significance regarding the role of fashion information sources between Chinese and Taiwanese consumers?

2.3. Product evaluative cues

Based on their knowledge and past experience, consumers may prefer certain products over other ones. In order to design and develop products to satisfy diverse consumer groups, a company should acquire knowledge about their consumers' needs and preferences with respect to what the product offers. According to some studies conducted in China (Beaudoin & Lachance, 2006; Li & Xiao, 1999; Zhang, Li, Gong, & Wu, 2002), older consumers are more pragmatic and price-conscious, whereas younger consumers are more concerned with clothing styles and brand names.

The salient impact of product cues may vary among consumers depending on their personal needs, and socio-economic contexts. Prior research studies (e.g. Rahman, 2011) have dichotomised the product cues into two types – intrinsic and extrinsic. Intrinsic cues refer to those attributes directly attached to the physical product such as colour, style, fabric and fit, while extrinsic cues ascribe to those intangible attributes which are indirectly attached to the product such as price, brand name and country of origin.

In order to gain an understanding of consumer choice and preference from a cross-cultural perspective, 11 product cues were selected for the present study. The selection criteria for these product cues were based on the guidelines of numerous apparel studies (e.g. Rahman, 2011; Rahman, Yan, & Liu, 2009) such as relevance, importance and frequency. In order to understand the effects of product cues, the following research questions were posed:

RQ8a: What product cues play a more significant role in apparel evaluation in China?

RQ8b: What product cues play a more significant role in apparel evaluation in Taiwan?

RQ8c: What are the differences regarding the significance of apparel evaluative cues between Chinese and Taiwanese consumers?

3. Research methodology

3.1. Questionnaire survey

A questionnaire survey consisting of three sections was developed and used for the present study. The first section of questions covered two areas relating to clothing consumption: (1) the importance of product evaluative cues and (2) the importance of fashion information sources. In total, 12 apparel product cues and 11 fashion information sources were selected. A five-point Likert-type response scale (5 = strongly agree or very important to 1 = strongly disagree or unimportant) was used for this section. The inclusions and exclusions of product cues and fashion information sources on the list were based on several prior fashion research studies (Eckman, Damhorst, & Kadolph, 1990; Rahman, 2011; Rahman et al., 2010), and also determined by four judges (two fashion practitioners and two fashion professors) to ensure cross-national appropriateness and relevancy. This validation process among the judges was important to improve the effectiveness of the instrument.

The second section of the questionnaire focused on consumer shopping behaviours such as apparel spending, shopping channels (online versus offline) and shopping frequencies. The third section was designed to collect demographic data, including age, gender, income level, occupation and marital status. The questionnaire was developed in a simplified Chinese version for China and a traditional Chinese version for Taiwan. Prior to the data collection, the questionnaire was pretested on 15 participants in each country to identify potential problems, misunderstandings and ambiguities, and corresponding revisions and amendments were made (Rahman et al., 2010).

3.2. Data collection

In order to collect data and increase the response rate from different age groups (18–25 and 26–33), a commercial online *SurveyMonkey* software program was used in both countries, and data were collected from both genders in these two age groups. Kang and Park-Poaps (2010) suggest that there are several advantages for employing online surveys, as they (1) reduce coding time; (2) lower financial costs; (3) minimise coding errors; (4) foster greater privacy; and (5) allow convenience for participants. The data of this survey were primarily collected from convenience sampling through the assistance of acquaintances and friends in China and Taiwan. Some responses were removed from the data sets due to irrelevant age (over 33 years) and excessive missing data. In total, we received 338 usable questionnaires from China and 151 from Taiwan for analysis. The unequal sample sizes could be partly due to the population size of both countries.

4. Results

The Chinese sample was composed of 213 females (63.0%) and 125 males (37.0%), and the Taiwanese sample was composed of 88 females (58.3%) and 63 males (41.7%). The difference in gender distribution was obvious in both samples, although there was a

slightly higher proportion of men in the Taiwanese sample than the Chinese sample. Clearly, the participants were predominately female. This may be attributed to the nature of the topic of study. As Quigley and Notarantonio (2009) point out, women are more engaged and interested in fashion than are their male counterparts. Moreover, the subjects from these two countries were relatively young, with most of the participants falling between 18 and 25 years of age. The mean age was 24.9 and 24.7 years for the Chinese and Taiwanese, respectively, and many were students, as shown in Table 1.

4.1. Gender

4.1.1. China: differences between younger and older consumers on the frequency and time spent on apparel shopping (RQ1a and RQ2a)

According to our findings, female consumers shopped more frequently and spent more time at the brick-and-mortar stores than did male consumers. For example, 25.8% of female consumers ($n = 55$) shopped for apparel more than 15 times per year, as compared to only 4.8% of male consumers ($n = 6$). In addition, the vast majority of female consumers ($n = 110$, 59.1%) shopped at the mall for over two hours each time, while the majority of male consumers ($n = 93$, 74.4%) spent two hours or less. These findings are consistent with previous studies (Hart et al., 2007; Ross, 2011; Sindicich & Black, 2011). Moreover, the results of the *t*-test revealed that there was a significant difference in apparel shopping at the physical stores between male and female consumers ($t = -7.473$, df = 336, $p = .000$), and there was also a significant variance on time spent at the shopping mall between genders ($t = -6.537$, df = 333, $p = .000$), as shown in Table 2.

Table 1. Demographic profile.

	China		Taiwan	
	Frequency ($N = 338$)	%	Frequency ($N = 151$)	%
Gender				
Male	125	37.0	63	41.7
Female	213	63.0	88	58.3
No response	0	0.0	0	0.0
Age				
18–25	214	63.3	100	66.2
26–33	124	36.7	47	31.1
No response	0	0.0	4	2.6
Mean age	24.9 ($n = 338$)		24.7 ($n = 147$)	
Employment status				
Full-time Employed	116	34.2	58	38.4
Part-time Employed	6	1.8	3	2.0
Student	178	52.7	72	47.7
Other	38	11.3	18	11.9
No response	0	0.0	0	0.0

In terms of online apparel shopping, women shopped more frequently than men – for example, 29.1% ($n = 62$) of women shopped more than 15 times per year when compared to 8% ($n = 10$) for men. Our *t*-test result also shows the significant difference in the frequency of online apparel shopping between men and women ($t = 5.594$, df = 334, $p = .000$). It is evident that Chinese women are more involved in apparel shopping than men.

4.1.2. Taiwan: differences between younger and older consumers on the frequency and time spent on apparel shopping (RQ1b and RQ2b)

In Taiwan, our findings also indicate that female consumers shopped relatively more frequently than male consumers at the physical stores per year. In regard to online shopping, 54.7% of the females shopped more than three times per year, when compared to 38.1% of male consumers. According to the *t*-test analysis, there was significant difference in the frequency of both online and offline (physical stores/shopping mall) shopping between males and females. However, our *t*-test results do not show significant differences on the average time spent at the brick-and-mortar stores, as well as online, between men and women (see Table 2 for all details). It is logical to suggest that Taiwanese women are generally more involved in apparel shopping than men, but they do not necessarily spend more time in either offline or online activities when they do shop.

4.1.3. Differences between male and female consumers on the frequency and time spent on apparel shopping between China and Taiwan (RQ3)

According to the *t*-test analysis of male consumers, there were no significant differences in the frequency of apparel shopping at the brick-and-mortar stores, nor the time spent at the shopping mall and online shopping, between China and Taiwan. The exception was seen in the frequency of online shopping where Chinese male consumers tended to shop online more often than their Taiwanese counterparts. With these findings, it is reasonable to suggest that the shopping behaviours of both Chinese and Taiwanese male consumers are fairly similar.

Regarding the apparel shopping behaviours of Chinese and Taiwanese female consumers, the *t*-test results show significant differences in the frequency of shopping and time spent, as displayed in Table 3. Based on our findings, Chinese female consumers are more involved in apparel shopping than those in Taiwan.

Table 2. Effects of gender: *t*-test results of the frequency of apparel shopping and time spent by country.

	Male			Female					
Gender	*M*	SD	*n*	*M*	SD	*n*	95% CI for mean difference	*t*	df
Frequency of apparel shopping at physical stores per year									
China	2.33	1.349	125	3.66	1.699	213	−1.679, −0.979	−7.473*	336
Taiwan	2.35	1.334	63	3.23	1.740	88	−1.395, −0.362	−3.359*	149
Frequency of online apparel shopping each year									
China	3.16	1.578	125	4.35	2.035	211	−1.603, −0.769	−5.594*	334
Taiwan	2.43	1.304	63	3.20	1.814	88	−1.305, −0.247	−2.900*	149
Average time spent at the shopping mall each visit									
China	2.11	0.930	124	2.75	0.816	211	−0.827, −0.445	−6.537*	333
Taiwan	2.19	0.859	63	2.22	0.890	88	−0.311, 0.261	−0.176	149
Average time spent in online shopping each session									
China	1.56	0.846	125	2.18	0.846	212	−0.813, −0.425	−6.282*	335
Taiwan	1.71	0.831	63	1.93	0.968	88	−0.516, −0.081	−1.442	149

*$p < .05$.

4.2. Age

4.2.1. China: differences between younger and older consumers on the frequency of online and offline apparel shopping (RQ4a and RQ5a)

In terms of consumers' shopping behaviours, our results indicated that 25.7% of younger Chinese consumers (18–25 years) shopped for clothing over 15 times per year at the physical stores – this is five times higher than the older age group (4.8%). According to the *t*-test results, there was a significant difference in the frequency of apparel shopping and time spent at the physical stores between younger and older consumers, as shown in Table 3. These findings indicated that younger consumers shopped for clothing more frequently and also spent more time at the brick-and-mortar stores than the older consumers. In terms of our participants' online shopping behaviours, 25.8% of the older consumers shopped for clothing over 15 times per year, as compared to 18.7% of the younger group. In total, only 3.7% of the younger consumers and 2.4% of the older consumers had never shopped online. Thus, it is reasonable to suggest that online shopping is one of the popular shopping modes in China. In addition, the *t*-test results indicated that there was a significant difference in the frequency of online apparel shopping per year ($t = -2.011$, $df = 334$, $p = .000$), but no significant difference in the average time spent between younger and older consumers when shopping online ($t = 0.213$, $df = 335$, $p = .831$).

4.2.2. Taiwan: differences between younger and older consumers on the frequency of online and offline apparel shopping (RQ4b and RQ5b)

According to the *t*-test results, there were no significant differences between younger and older consumer groups in terms of the frequency of apparel shopping and time spent at the physical stores as well as online (see Table 4).

Table 3. Results of the *t*-test analysis: effects of gender and age on apparel shopping between China and Taiwan.

	China			Taiwan					
Country	*M*	SD	*n*	*M*	SD	*n*	95% CI for mean difference	*t*	df
Frequency of apparel shopping at physical stores per year									
18–25 years	3.53	1.773	214	3.05	1.749	100	0.057, 0.899	2.236*	312
26–33 years	2.54	1.370	124	2.55	1.348	47	0.602, 0.430	−0.330	169
Male	3.13	1.586	125	3.17	1.465	63	−0.518, 0.425	−0.195	186
Female	4.63	1.762	212	4.11	1.908	88	0.068, 0.969	2.264*	298
Frequency of online apparel shopping each year									
18–25 years	3.74	1.920	214	2.99	1.667	100	0.314, 1.192	3.373*	312
26–33 years	4.19	2.010	122	2.79	1.654	47	0.896, 2.419	4.298*	167
Male	3.82	1.898	125	2.92	1.688	63	0.337, 1.453	3.165*	186
Female	5.15	2.282	210	3.84	2.176	88	0.744, 1.869	4.571*	298
Average time spent at the shopping mall each visit									
18–25 years	2.61	0.878	212	2.13	0.774	100	0.277, 0.285	4.663*	310
26–33 years	2.35	0.949	123	2.40	1.056	47	−0.386, 0.277	−0.325	168
Male	2.11	0.930	124	2.19	0.859	63	−0.354, 0.199	−0.553	185
Female	2.75	0.816	210	2.22	0.890	88	0.327, 0.746	5.039*	296
Average time spent in online shopping each session									
18–25 years	1.96	0.860	213	1.83	0.853	100	0.077, 0.332	1.229	311
26–33 years	1.94	1.026	124	1.91	1.060	47	−0.329, 0.371	0.116	169
Male	1.56	0.846	125	1.71	0.831	63	−0.411, 0.102	−1.187	186
Female	2.19	0.926	212	1.93	0.968	88	0.027, 0.496	2.197*	298

*$p < .05$.

Table 4. Results of the *t*-test analysis: Effects of age on the frequency of apparel shopping and time spent by country.

	Age: 18–25 years			Age: 26–33 years					
Age Group	*M*	SD	*n*	*M*	SD	*n*	95% CI for mean difference	*t*	df
Frequency of apparel shopping at physical stores per year									
China	3.53	1.773	214	2.54	1.370	124	0.624, 1.351	5.347*	336
Taiwan	3.05	1.749	100	2.55	1.348	47	−0.025, 1.018	1.721	145
Frequency of online apparel shopping each year									
China	3.74	1.920	214	4.19	2.010	122	−0.881, −0.887	−2.011*	334
Taiwan	2.99	1.667	100	2.79	1.654	47	−0.380, 0.785	0.690	145
Average time spent at the shopping mall each visit									
China	2.61	0.878	212	2.35	0.949	123	0.057, 0.461	2.525*	333
Taiwan	2.13	0.774	100	2.40	1.056	47	−0.618, 0.070	−1.775	145
Average time spent in online shopping each session									
China	1.96	0.860	213	1.94	1.026	124	−0.183, 0.228	0.213	335
Taiwan	1.83	0.853	100	1.91	1.060	47	−0.437, −0.267	−0.520	145

*$p < .05$.

4.2.3. Differences between younger and older consumers on the frequency of online apparel shopping between China and Taiwan (RQ6)

According to the *t*-test analysis, there were significant differences in the frequency of apparel shopping per year at the physical stores between younger Chinese and Taiwanese consumer groups, but no significant difference between the older consumer groups. This finding indicated that younger Chinese consumers tended to shop more frequently at the physical stores than their Taiwanese counterparts. In terms of the frequency of online shopping for apparel per year, our *t*-test results (as indicated in Table 4) show significant differences between Chinese and Taiwanese consumers of both age groups. In addition, the *t*-test results show significant differences on average time spent at the shopping mall between the younger Chinese and Taiwanese consumers, but no significant differences were found between the older age groups. Interestingly enough, there is no significant difference on average time spent in online shopping between Chinese and Taiwanese consumers of both age groups. Although Chinese consumers shopped online more frequently than the Taiwanese of both age groups, the average time spent online was similar.

4.3. Sources of fashion information

4.3.1. China and Taiwan: the significance of fashion information sources (RQ7a, RQ7b and RQ7c)

'Friends', 'store/window displays' and the 'Internet' (e-retailer websites) were ranked as the top three sources of fashion information by the Chinese consumers according to the value of mean. In terms of impersonal source of information, a study conducted by Seock and Bailey (2009) also found that many consumers relied on in-store displays. While Taiwanese consumers considered 'friends' as the most important fashion information source, 'people on the street' and 'magazines' followed as their second and third choices. Both Chinese and Taiwanese consumers ranked other personal sources such as 'parents' and 'siblings' to be their least important sources, as shown in Table 5. According to our *t*-test analysis, there were significant differences in the choice of 'friends', 'people on the street', 'celebrities' and 'television' between the Chinese and Taiwanese consumers, the latter relying more heavily on these sources to search for fashion information than their Chinese counterparts.

Table 5. The significance and effects of fashion information sources.

	China			Taiwan					
Country	*M*	SD	*n*	*M*	SD	*n*	95% CI for mean difference	*t*	df
Friends	3.98	1.031	337	4.25	0.824	151	−0.453, −0.079	−2.794*	486
Store/window displays	3.88	0.995	337	3.77	0.976	151	−0.074, 0.306	1.198	486
Internet: e-retailer websites	3.74	1.026	337	3.64	1.106	151	−0.099, 0.300	0.986	486
People on the street	3.72	1.014	337	3.93	0.943	151	−0.401, −0.019	−2.158*	486
Advertisements/billboards	3.70	1.021	337	3.69	0.960	151	−0.178, 0.207	0.148	486
Magazines	3.68	1.037	337	3.87	1.011	151	−0.383, 0.013	−1.837	486
Internet: fashion blogs	3.51	1.168	337	3.55	1.106	151	−0.260, 0.182	−0.349	486
Celebrities	3.40	1.174	337	3.67	1.094	151	−0.492. −0.050	−2.410*	486
Television	3.23	1.141	337	3.67	1.075	151	−0.656, −0.225	−4.011*	486
Siblings	3.11	1.291	337	3.28	1.239	151	−0.411, 0.080	−1.325	486
Parents	2.97	1.178	337	2.87	1.237	151	−0.130, 0.330	0.852	486

*$p < .05$.

4.4. Apparel evaluative cues

4.4.1. China and Taiwan: the significance of product evaluative cues (RQ8a, RQ8b and RQ8c)

As shown in Table 6, it is evident that 'fit' and 'comfort' were perceived to be the two most important product cues for clothing evaluation by participants of both countries. 'Quality/workmanship' was ranked as the third most important factor by Chinese consumers, followed by 'colour' and 'style', whereas the Taiwanese consumers ranked 'price' as the third most important cue, followed by 'style' and 'colour'. It is interesting to note that the Chinese and Taiwanese both perceived 'ease of care', 'brand name' and 'country of origin' as the three least important evaluative cues. According to the *t*-test results, there were significant differences in the 'quality/workmanship' and 'country of origin' cues. Our results showed that the functional variables (e.g. fit, comfort, durability) and symbolic/aesthetic variables (e.g. style, colour and brand name) played a similar role in clothing evaluation despite the economic differences between China and Taiwan

5. Discussion of the findings

Although a significant body of research has previously examined consumers' shopping behaviours, literature that focuses specifically on Chinese and Taiwanese apparel consumers is still limited. The present study extends our understanding of consumer behaviour in two different markets sharing the same ethnic heritage and language.

The results of this study indicate that both Chinese and Taiwanese women shopped more frequently than men, and Chinese women aged 18–25 spent relatively more time in both online and offline shopping than did those aged 26–33. However, in Taiwan, there were no significant differences in the effects of gender or age in terms of the frequency of apparel shopping and time spent in both online and offline shopping. There was a significant difference in the frequency of online shopping between the Chinese and Taiwanese market: Chinese consumers shopped more frequently online than did their Taiwanese counterparts. It is evident that the Internet plays a much more important role in apparel shopping to the Chinese, and especially for the older age group. Although sources of information have been tested in previous apparel studies (e.g. Seock & Bailey, 2009), the effects of online e-retailer websites and fashion blogs have seldom been examined, particularly in a cross-cultural perspective. We believe that the findings from this study can provide meaningful insights to online practitioners and marketers.

Our results also indicate that young female Chinese consumers enjoyed shopping at the brick-and-mortar stores, and they spent relatively more time than did consumers in the older group, and men. In China, shopping is an important social and leisure activity for this younger-aged group. This finding is consistent with a study of young consumers in China (Zhang, 2005). Therefore, it is imperative for mall/store managers to pay extra attention to the ambience and environmental quality of their retail establishments, with the intention of heightening the shopper experience and increasing mall patronage. As Rahman, Kwong-Kay Wong, and Yu (2016) points out, 'to engage young consumers [in China] and enhance their patronage, "shoppertainment" and technology-focused experiences (e.g. interactive displays, live performances and themed events) may provide consumers novelty and excitement … .' Today's shoppers do not merely focus on utilitarian values (instrumental, practical and task-related benefits) when they shop for clothing, but also seek hedonistic, aesthetic, experiential and pleasure-related benefits.

According to the results, both Chinese and Taiwanese consumers cited 'fit' and 'comfort' as the two most important evaluative criteria for clothing selection, and these findings are in line with several previous apparel

Table 6. The significance and different effects of apparel evaluative cues.

	China			Taiwan					
Country	*M*	SD	*n*	*M*	SD	*n*	95% CI for mean difference	*t*	df
Fit	4.61	0.764	337	4.58	0.707	151	−0.110, 0.177	0.456	487
Comfort	4.52	0.728	337	4.44	0.660	151	−0.062, 0.210	1.069	487
Quality/workmanship	4.51	0.681	337	4.11	0.801	151	0.267, 0.544	5.756*	487
Colour	4.38	0.847	337	4.26	0.892	151	−0.049, 0.282	1.385	487
Style	4.29	0.865	337	4.33	0.806	151	−0.201, 0.125	−0.461	487
Price	4.27	0.820	337	4.40	0.704	151	−0.286, 0.016	−1.751	487
Fabric	4.22	0.850	337	4.23	0.826	151	−0.171, 0.153	−0.111	487
Durability	4.01	0.900	337	4.12	0.923	151	−0.279, 0.070	−1.176	487
Wardrobe coordination	3.99	1.080	337	4.09	0.970	151	−0.303, 0.101	−0.982	487
Ease of care	3.96	0.896	337	4.09	0.948	151	0.312, 0.038	−1.536	487
Brand name	3.43	1.107	337	3.26	1.186	151	−0.047, 0.388	1.541	487
Country of origin	2.51	1.197	337	3.02	1.010	151	−0.734, −0.294	−4.597*	487

*$p < .05$.

studies (Chae, Black, & Heitmeyer, 2006; May & Koester, 1985; Wu & Delong, 2006; Zhang et al., 2002). Consumers often look for a well-fitting and comfortable garment to satisfy their physical and psychological needs, as well as to justify their purchases. Following the 'fit' and 'comfort' cues, 'colour' and 'style' also played a relatively important role in product evaluation. Thus, it is reasonable to suggest that both Chinese and Taiwanese consumers are more concerned with the physical characteristics and aesthetic values (fit, style, colour) of clothing products than with their functional benefits (durability, ease of care) and symbolic meaning (brand, country of origin). With this perspective, fashion practitioners should prioritise their resources and pay additional attention to product research and development (e.g. creative design and fit engineering) to satisfy their consumers' physical and psychological needs. Due to similar responses from both samples, we believe that standardised or universal products can be designed and developed for the Chinese and Taiwanese markets.

Both Chinese and Taiwanese participants cited 'friends' to be their most important fashion information source, while 'siblings' and 'parents' were the two least important sources. These findings are in line with consumer-socialisation theory (Bearden & Rose, 1990), for as children mature and enter adulthood, parental influence decreases while peer-group influence increases. A study of apparel shopping behaviours conducted by Koester and May (1985) also found that parental influence on clothing selection decreased as pre-adolescents aged, and peer and media influences increased. In addition, another study (Chen-Yu & Seock, 2002) revealed that friends were the most important source of fashion information for apparel purchases by adolescents.

Other than 'friends', the Internet played a relatively important role for the Chinese shoppers. Many Taiwanese consumers were more reliant on what people wore on the street, or on fashion information found in magazines, than on online sources. This finding echoes the results shown regarding the frequency and time spent on apparel shopping – Chinese consumers were more involved in online shopping than were their Taiwanese counterparts. These findings underscore at least two important implications for fashion practitioners. First, given that 'friends' are cited by both Chinese and Taiwanese consumers as the most important fashion information source, it is reasonable to believe that fashion leaders could play an influential role through their personal networks. Therefore, it is important for fashion practitioners to identify and communicate with fashion leaders because their word-of-mouth influences could greatly affect other people's perceptions towards a brand/product. Second, due to the salient impact of the Internet (particularly for Chinese shoppers), fashion e-retailers should constantly update and improve their websites in order to maximise effective communications and build stronger connections with online shoppers. For example, garment style and comfort can be communicated through utilising a variety of online videos, visual images and textual information. In addition to clothing style, many consumers are concerned about how clothing will look on their body, therefore, 3D model and product viewing in different angles (rotating, zooming and flipping) could play an important role in product evaluation and decision-making processes.

6. Conclusion

E-commerce has rapidly transformed Chinese consumers' shopping behaviour and experiences, and plays a very important role in today's consumer market. For example, China's e-commerce giant Alibaba has broken its 'Singles Day' online sales record with $17.8 billion in just one day (Weise, 2016). Due to the tremendous growth of online sales, Amazon's Prime has made their shipping programme available to their consumers in China since 28th October 2016 (Jing, 2016). It is therefore reasonable to believe that Chinese consumers will continue to use online shopping agents to look for good deals, as well as desirable and exotic merchandises to fulfil their needs. Although e-commerce has been growing rapidly, the return of merchandises is inevitable. In order to reduce apparel returns, it is important for the fashion practitioners to provide well-fitted and comfortable clothing to their consumers in addition to affordable price and fashionable style.

In general, young Chinese consumers enjoy spending time in the brick-and-mortar stores for various reasons – personal shopping, hanging out with friends and browsing the stores as leisure activity. However, older consumers may not want to spend a substantial amount of time in the stores or shopping malls due to their busy lifestyles. It is reasonable to suggest that older consumers are relatively more task-oriented when it comes to shopping; therefore, online shopping or convenience shopping is deemed to be an important factor to the older demographics in China. As a result, product placement on relevant shopping channels is critical, and there is no 'one-size-fit-all' strategy for different genders, age groups and cultures.

In order to be successful in today's marketplace, fashion practitioners must: pay attention to consumer-specific needs; identify the significant role of different product attributes; monitor and identify the shifting paradigm of consumer taste and shopping habit; and discover what design features of a product may trigger

particular cognitive and affective responses among Chinese consumers in different regions and countries.

7. Limitations and future research

The present study has a number of limitations as many studies have. First, the Taiwanese sample size was relatively small. Second, the findings cannot be legitimately generalised to fit all Asian countries. More similar research will be required in other parts of the Asian region to increase validity and reliability. Third, the effects of fashion information sources and product evaluative cues could vary among different product types. Therefore, it would be meaningful to conduct additional research using different consumer goods and products. Fourth, the majority of our data was collected from a younger demographic; therefore, the results of this study lacked generalisation to other market segments or cohorts from X-generation, baby boomer and senior demographic groups. Fifth, qualitative approaches such as interview and ethnographic research could be employed to offer in-depth information and insight to actual shopping experiences.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This research project funded by the Social Sciences and Humanities Research (SSHRC) Council of Canada (Insight Development Grant #430-2014-01100). This assistance is gratefully acknowledged.

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