

Active leisure: an investigation of active participants' shopping, purchase and behavioural loyalty for physical activity apparel

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Abstract:

Physical activity is increasingly occupying individuals' leisure time. Due to this increased participation in physical activity, active apparel is today's most rapidly growing apparel sector. In light of this trend, this research developed and tested a model to understand how consumers shop (i.e. shopping styles) for their physical activity apparel and what factors lead to their purchase of and behavioural loyalty towards such apparel. Based on survey data from active consumers (n = 303), structural equation modeling results show that decision-making styles impact attitudes and that these attitudes accounted for the actual purchase of and subsequent satisfaction with physical activity apparel. Satisfaction, in turn, leads to higher behavioural loyalty towards physical activity apparel. Based on the findings, implications and suggestions for future research are presented.

Keywords: active leisure | physical activity apparel | consumer decision-making styles | attitudes | behavioral loyalty

Article:

Introduction

Physical activity is increasingly occupying individuals' leisure time, across the spectrum from non-elite to elite athlete participation (Bridel, Citation2015) and across the lifespan (Keough, Abravanel, & Mcbrearty, Citation2015). More than half of American consumers (est. 159 million) report that they participate in regular physical activity (Kasriel, Citation2016). This trend towards leisure time spent on physical activity is also a growing global phenomenon. Fitness enthusiasm is growing in Canada (Clark, Citation2016), Europe (Kasriel, Citation2015a), across Latin America (Kasriel, Citation2015b) and in the Asia-Pacific region (Kasriel, Citation2015c). As a result, an increasing amount of consumers seek to acquire physical activity apparel to participate in their leisure activity. Due to this trend, physical activity apparel is today's most rapidly growing apparel sector (Alva, Citation2012), with annual sales percentages increasing at a greater rate than the apparel market as a whole (Germano, Citation2014; Kell, Citation2014). As interest in

participating in physical activity continues to increase, this growth is expected to continue, reaching \$181 billion in 2018 (Global Industry Analysts, Citation2013).

Additionally, shopping and adornment (through apparel) as leisure is well established (Bloch, Citation1993; McCarville, Shaw, & Ritchie, Citation2013; Stebbins, Citation2006). In the athletic context, when consumers feel a sense of involvement with their equipment, spending levels during leisure shopping increase (Bloch, Black, & Lichtenstein, Citation1989). This indicates that since equipment (e.g. athletic apparel) is central to perform fitness-related leisure activities, users devote substantial time and effort to shop for and select the correct equipment. Thus, the relationship between leisure activities and consumption is worthy of investigation (Rojek, Citation2006).

Consumers of physical activity apparel are a unique subset of consumers because they seek products that deliver functionality, but they are also concerned with the fashion, style and brand of their performance apparel (Kell, Citation2014). Such unique interest in this product category impacts the ways in which these active consumers shop for physical activity apparel (i.e. their decision-making styles), as well as their attitudes towards physical activity apparel. While previous research has often segmented consumers by their decision-making styles (Coward & Goldsmith, Citation2007; Zhou, Arnold, Pereira, & Yu, Citation2010), such investigations have not specifically focused on physically active consumers, despite the understanding that active consumers tend to shop differently for physical activity apparel (Bae, Lam, & Jackson, Citation2009). With this in mind, this research will help to shed light on how consumers shop for apparel to be used during their leisure time activities.

Because leisure apparel is typically worn during physical activity, shoppers likely prefer to purchase brands that assist in their performance, motivate them to complete their goals and can withstand the 'wear-and-tear' of their activities (Goodfellow, Citation2013). Thus, when physical activity apparel consumers are satisfied with their performance apparel, they may seek to purchase, and may become loyal to, brands they believe can help them satisfy these objectives (Goodfellow, Citation2013; Kramer, Citation2014). Therefore, purchase behaviour, satisfaction and behavioural loyalty are important factors to evaluate when investigating physically active individuals. Based on the characteristics specific to consumers who participate in physical activity, two research questions arise:

RQ1: How do consumers shop (i.e. shopping styles) for their physical activity apparel?

RQ2: What leads to consumers' behavioural loyalty towards physical activity apparel?

To investigate these research questions, this study develops a model within a large market of physical activity apparel (i.e. U.S.A.) to analyze how physical activity participants shop in terms of decision-making styles and to test how purchase behaviour can be influenced within the same product category by two distinct types of attitudes (hedonic and utilitarian). Further, based on the unique capacity of physical activity apparel to influence leisure performance, this study also investigates how purchase behaviour influences satisfaction with and, by extension, behavioural loyalty towards athletic apparel brands. Given that physical activity apparel shoppers tend to be physically active individuals (Davies, Citation2002; Lamb, Asturias, Roberts, & Brodie, Citation1992; Scheerder, Vos, & Taks, Citation2011), this study seeks to actively represent these consumers by collecting data primarily from active individuals through an intercept method at athletic events and venues. By investigating how physically active consumers shop for apparel and

what factors lead to their behavioural loyalty, this study will provide information on how consumers satisfy their apparel needs for their leisure activities. Ideally, apparel marketers can use this resulting information to increase participation and enjoyment in physical activity as a leisure activity.

Literature review and hypotheses development

Physical activity apparel consumers' decision-making styles

Sproles and Kendall (Citation1986) developed the consumer styles inventory (CSI) as a methodology to measure consumer shopping orientations and behaviour. Sproles and Kendall define consumer decision-making style as 'a mental orientation characterizing a consumer's approach to making choices' (Citation1986, p. 267) and propose that consumers adopt a particular shopping orientation. The CSI identifies eight consumer decision-making styles: i) price/value consciousness, ii) high quality consciousness/perfectionism, iii) impulsiveness, iv) confusion by overchoice, v) brand consciousness, vi) novelty/fashion consciousness, vii) habitual/brand-loyal orientation and viii) recreational shopping consciousness (Table 1). While CSI has been widely used to measure consumer decision style characteristics towards consumer product consumption (Bae et al., Citation2009; Bae & Miller, Citation2009; Chae, Black, & Heitmeyer, Citation2006), it has not previously been used to measure shopping styles for physical activity apparel consumers.

Consumer decision-making styles have been heavily utilized to research travel decision-making styles (e.g. Chang, Citation2011; Decrop & Zidda, Citation2006). Tourism researchers have principally used CSI for tourism segmentation as a means to create a taxonomy of tourism participants based on the eight CSI styles (Grabler & Zins, Citation2002; Reid & Crompton, Citation1993). In more recent times, tourism and leisure studies have drawn from consumer behaviour literature to investigate decision-making styles of its participants and their leisure decisions (Chang, Citation2011; Correia, Kozak, & Ferradeira, Citation2011; Peng, Bilgihan, & Kandampully, Citation2015).

Furthermore, Atadil, Sirakaya-Turk, Meng, and Decrop (Citation2018) suggest that, while previous leisure research using decision making styles in relation to segmentation and preferences has been useful, this research seems to fall short in terms of research design, efficacy of method and the number of decision-making styles being investigated. In their recent research, Atadil et al. (Citation2018) attempt to provide a more functional and efficient quantitative model to examine decision-making styles and suggests further examination of using these styles to develop an empirical model that explores these activities and can be applied in other leisure contexts.

Additionally, the CSI suggests that consumer decision-making styles are based on both cognitive and affective mental orientations. While leisure research has shown that participation in leisure activities can be hedonic in nature (Stebbins, Citation2001), consumers may also share utilitarian or functional values when considering physical activity apparel. Therefore, this suggests that in the context of physical activity apparel consumers, CSI may have either a cognitive (utilitarian) or an affective (hedonic) orientation (Lysonski & Durvasula, Citation2013; Zhou et al., Citation2010). For example, physical activity apparel consumers that possess a value/price consciousness style (i.e. consumers concerned with getting the best value for their money) are likely to use utilitarian or cognitive decision-making styles (Babin, Darden, & Griffin, Citation1994). Conversely, an athletic apparel consumer with a decision-making style based on recreational shopping consciousness (i.e. consumers who view shopping as enjoyable and

stimulating) may have an affective or hedonic orientation when athletic apparel is worn for performance and style. Given the consumer importance placed on the utilitarian/functional features of physical activity apparel (e.g. fit and use), and the hedonic/pleasurable appeal (e.g. style and colour) of this apparel type, this research seeks to examine the association of utilitarian and hedonic attitudes with the CSI style for the leisure consumer.

Table 1. Characteristics of consumer decision making styles (Sproles & Kendall, 1986).

Orientation	decision making style	Description
Utilitarian decision making styles	Price/Value Consciousness	Decision style that is concerned with getting lower prices. The presence of this trait means that consumers are conscious of sale prices and aims to get the best value for their money.
	Quality/Perfectionism	Decision style that is concerned with quality. Consumers with this decision-making style will not compromise with products classified as 'good enough'.
	Impulsive/Carelessness	Decision style that describes shoppers who do not plan their shopping and appear unconcerned with how much they spend. Consumers with this style can regret their decisions later.
	Confusion by Overchoice	Decision style that reflects a lack of confidence and an inability to manage the number of choices available. Consumers with this trait experience information overload.
Hedonic decision making styles	Brand Consciousness	Decision style that is concerned with getting expensive, well-known brands. Consumers with this style believe that the higher the price of a product, the better the quality. These consumers also prefer best-selling advertised brands.
	Novelty/Fashion Consciousness	Decision style that reflects a desire to seek out new things. This trait reflects a liking of innovative products and a motivation to keep up to date with new styles and fashion trends.
	Habitual/Brand-loyal Orientation	Decision style for shopping at the same stores and tendency to buy the same brands each time.
	Recreational Shopping Consciousness	Decision style that views shopping as being enjoyable per se. Shoppers with this trait enjoy the stimulation of looking for and choosing products.

Furthermore, research has suggested that consumer approaches to cognitive and affective choices are likely associated with consumers' utilitarian or hedonic attitudes toward products (Bauer, Falk, & Hammerschmidt, Citation2006). However, the magnitude of these influential roles may differ across certain aspects of attitudes. Researchers have established that it is important to measure consumer decision-making styles (shopping styles) as it relates to sport-related consumer behaviour (Bae et al., Citation2009; Bae, Lu-Anderson, Fujimoto, & Rochelieu, Citation2015; Bae & Miller, Citation2009; Bae, Pyun, & Lee, Citation2010). Through these studies, researchers created a set of knowledge that establishes that segmenting decision-making styles for sport-

related products are essential. Particularly, because active consumers are known to shop distinctly for their physical activity apparel (Bae et al., Citation2009).

Based on this line of research, it is likely that physical activity apparel shoppers who are driven by utilitarian shopping styles (i.e. price/value consciousness, quality/perfectionism consciousness, impulsiveness/carelessness and confusion by overchoice) may be more likely to display favourable utilitarian attitudes toward physical activity apparel related to the functional and practical aspects of performance wear than those with hedonic shopping styles.

Furthermore, it has been well established that consumption of leisure activities oftentimes results in fun, enjoyment, arousal or sensory stimulation (Holbrook & Hirschman, Citation1982; Mannell, Citation1980; McIntyre, Citation1989). In this way, physical activity apparel shoppers who are driven by hedonic shopping styles (i.e. brand consciousness, novelty/fashion consciousness, habitual/brand-loyal orientation and recreational shopping consciousness) are more likely to display favourable hedonic attitudes toward physical activity apparel than those with utilitarian shopping styles due to the fun, experiential, enjoyable and stylish aspects of the performance apparel (Voss, Spangenberg, & Grohmann, Citation2003). The dominance of attraction (i.e. the pleasurable, fun and exciting aspects of shopping) relates to one's level of leisure (a.k.a. ego) involvement (Havitz & Dimanche, Citation1997). That is, when consumers' motivation and arousal towards a recreational activity is evoked by a stimulus or situation, they may experience enduring involvement through this attraction (Havitz & Dimanche, Citation1997). By incorporating this multi-dimensional view of involvement, studies confirm that activity-related consumption is highly impacted by participant's arousal and interest towards the activity (Havitz & Dimanche, Citation1999; Naylor & Havitz, Citation2017; Sato, Yoshida, Wakayoshi, & Shonk, Citation2017; Veal, Citation2017).

While research has asserted that CSI decision-making styles have either utilitarian or hedonic orientations (Zhou et al., Citation2010), this has yet to be empirically tested with relation to attitudes. The above evidence suggests that physical activity apparel consumers' decision-making style will influence their attitude toward products. Therefore, the first hypothesis proposes:

H1a: Utilitarian decision-making styles will have the greatest influence on utilitarian attitudes towards physical activity apparel.

H1b: Hedonic decision-making styles will have the greatest influence on hedonic attitudes towards physical activity apparel.

While research has shown benefits of segmenting buying groups (Pine, Peppers, & Rogers, Citation1995), previous studies designed to identify consumer decision-making styles have been limited (e.g. Bakewell & Mitchell, Citation2004). Moreover, the linkage to cognitive and affective attitudes has not been investigated. This research allows for the particular leisure consumer of physical activity apparel to be further understood, with findings having potential value for product marketers and managers of physical activity apparel.

Attitudes towards physical activity apparel

Those that devote themselves to an activity may experience a level of leisure involvement that is considered enduring (Kyle, Absher, Norman, Hammitt, & Jodice, Citation2007). In other words, involvement reflects the degree to which active consumers devote themselves to their activity of

choice (Havitz & Dimanche, Citation1997, Citation1999; Laurent & Kapferer, Citation1985; Zaichkowsky, Citation1985). Enduring involvement is particularly important to understand because enduring involvement is often manifested in overt behaviour including, but not limited to frequency and duration of participation, memberships and affiliations (Havitz & Dimanche, Citation1997). These motivational constructs are intrinsic and are related to the purchase environment (Kyle et al., Citation2007). Considering that involvement constitutes personal investment (e.g. financial, time and social) (McIntyre, Citation1989), it is likely that leisure consumers become involved (i.e. those involved in physical endeavours) and their participation behaviour may manifest within their attitudes toward purchasing products that contribute to consumers' active lifestyles (Lee, Lim, Jolly, & Lee, Citation2009). Moreover, consumers' involvement in a leisure activity or lifestyle for an active pursuit may strongly inform attitudes toward their activities (Havitz & Dimanche, Citation1997; Stebbins, Citation2005), which in turn may influence their behaviour to purchase products related to this lifestyle.

Considering the strong dual nature (i.e. purposes of both function and fashion) of athletic apparel, it is possible that consumers' utilitarian and hedonic attitudes toward physical activity apparel can influence their shopping behaviour (Jones, Reynolds, & Arnold, Citation2006; Wertenbroch & Dhar, Citation2000). As such, apparel shoppers with utilitarian attitudes toward apparel worn during physical activity (e.g. shoppers concerned with the apparel's performance or price) are likely to purchase apparel because they value the utilitarian or functional aspects of such items. Likewise, apparel shoppers with hedonic attitudes toward physical activity apparel (e.g. shoppers concerned with the apparel's style or brand) are likely to purchase athletic apparel because the product tends to fulfill their hedonic, emotional and experiential needs. Attitudes toward physical activity products are important to understand as they give an indication of how these consumers perceive the products.

In addition, Batra and Ahtola (Citation1990) suggest that consumers' attitudes toward branded products (e.g. toothpaste, soda, mouthwash and automobiles) are bi-directional, in that they are both utilitarian and hedonic. Similarly, Fowler's (Citation1999) research on sports-related apparel found that this product category produces both utilitarian and hedonic attributes in its appeal to consumers. While Jones et al. (Citation2006) explored the idea of utilitarian and hedonic shopping values regarding retail outcomes (i.e. purchase behaviours), there is scant research on the important utilitarian and hedonic attitudes toward shopping behaviour, specifically in the context of physical activity apparel. Thus, the second hypothesis proposes that:

H2: Consumers' a) utilitarian and b) hedonic attitudes toward physical activity apparel will influence their actual purchase of physical activity apparel.

Satisfaction with physical activity apparel

Consumer satisfaction has been heavily studied over the past several decades and has been defined in several ways. For instance, satisfaction has been described as 'the summary psychological state resulting when the emotion surrounding disconfirmed expectation is coupled with the consumer's prior feelings about the consumption experience (Oliver, Citation1980, p. 27), as well as "the consumer's response of the perceived discrepancy between prior expectations and the actual performance of the product as perceived after consumption"' (Oliver, Citation2010, p. 6). Overall, while definitions are abundant, they all essentially describe satisfaction in terms of whether a commodity meets or exceeds consumers' expectation following the purchase of an item (Oliver,

Citation1999, Citation2010). Related to leisure, research has shown that active involvement in physical activities can lead to satisfaction with the activity experienced, and thus can influence behaviour in the pursuit of the physical activity (Kyle, Graefe, & Manning, Citation2003).

Due to its importance, satisfaction is a well-established component when investigating leisure activities (Beard & Ragheb, Citation1980; Bloch & Bruce, Citation1984; Francken & Raaij, Citation1981; Ragheb, Citation1980; Ragheb & Tate, Citation1993; Riddick, Citation1986). Satisfaction with apparel choices is particularly important for consumers participating in leisure activities (Bloch & Bruce, Citation1984) because consumers who are satisfied with their apparel may choose to participate more frequently and may enjoy the leisure activity more.

Satisfaction is gained following judgement of a product if the item provides a pleasurable level of consumption-related fulfillment (Oliver, Citation2010). That is, satisfaction occurs if the item has quality performance (Dabholkar, Shepherd, & Thorpe, Citation2000; Oliver, Citation1997). Considering that physical activity apparel is created for performance, it is likely that consumers' actual purchase will lead to satisfaction with their purchase. Thus:

H3: Consumers' actual purchases of physical activity apparel will influence their satisfaction with that apparel.

Brand behavioural loyalty towards physical activity apparel

Word of mouth (WOM) and repurchase intention

Researchers have been interested in physically active consumers' (e.g. surfers, golfers, skaters) relationship with brands (Beverland, Farrelly, & Quester, Citation2006; Moutinho, Dionisio, & Leal, Citation2007; Wheat & Dickson, Citation1999), and particularly their loyalty towards particular brands worn during leisure activity (Kim, Citation2011; Tong & Hawley, Citation2009). Bloemer and Kasper (Citation1995) describe brand loyalty as a non-random behaviour expressed over time by a consumer with respect to a particular brand of a set of brands. As a result of this behaviour, there is a deep commitment towards the brand. A key component of brand commitment, the binding of a consumer to his or her brand choice (Kiesler, Citation1968), is that the brand is positively evaluated (Bloemer & Kasper, Citation1995). In the case of favourable evaluations, consumers become satisfied with the brand, which leads to brand loyalty (Bloemer & Kasper, Citation1995). Seminal work has established that commitment, the emotional and/or psychological attachment to an object or brand develops prior to loyalty behaviours such as repeat purchase behaviour (Beatty & Kahle, Citation1988). Expanding on this work, Pritchard, Havitz, and Howard (Citation1999) research in service contexts establishes that one's commitment, or resistance to change, impacts one's loyalty.

Oliver's (Citation1999) framework for loyalty highlights that loyalty is a continuum from cognitive loyalty to affect, conation and behavioural. Where, consumers can become loyal at each attitudinal phase by relating to different elements of each attitude structure. The first loyalty phase, cognitive loyalty, describes that one brand is preferred over another. However, this phase of loyalty is shallow and based on experience-based information. As consumers develop greater liking or attitudes towards the brand, they develop affective loyalty towards the brand. Despite favourable attitudes, consumers are still willing to switch brands during this phase. Moving to conative loyalty, this describes when consumers focus on wanting to buy the brand. Only when consumers experience a readiness to act do they develop behavioural loyalty. At this final stage of loyalty,

consumers' engagement is repeated, thereby facilitating action to share information and repurchase the brand (Oliver, Citation1999).

Support from the literature suggests that satisfaction is positively related to customer behavioural loyalty, as measured in terms of positive WOM and repurchase intentions (Bagozzi, Citation1992; Jones et al., Citation2006; Oliver, Citation1999; Tsiotsou, Citation2006). Positive WOM refers to telling others about a pleasurable product or experience (Dichter, Citation1966). Congruently, research has shown that WOM is associated with perceptions of value and equity (Hartline & Jones, Citation1996) and can have an influential impact on consumer decisions regarding services, dining, beauty and healthcare (Mehta, Lalwani, & Ping, Citation2001).

An additional measure of behavioural loyalty, known as repurchase intent, is defined as the likelihood that consumers will purchase products again (O'Curry & Strahilevitz, Citation2001). Research shows that repurchase intent (O'Curry & Strahilevitz, Citation2001) and positive recommendations regarding a product/service are likely to be shared with acquaintances (Zeithaml, Berry, & Parasuraman, Citation1996) when consumers are satisfied with their product.

While researchers have previously established the relationship between satisfaction and brand behavioural loyalty (e.g. Bloemer & Lemmink, Citation1992; Olsen, Citation2002), findings may be limited because they only capture repurchase intentions, which may be only spuriously related to brand loyalty (Bloemer & Kasper, Citation1995). That is, repurchase behaviour may be a function of inertia (Bloemer & Kasper, Citation1995). Thus, to more accurately measure brand behavioural loyalty, this study measures both positive WOM and repurchase intent. Further, considering that the relationship between satisfaction and brand loyalty tends to vary depending on the product, industry or situation (Fornell, Johnson, Anderson, Cha, & Bryang, Citation1996; Johnson, Andreassen, Lervik, & Cha, Citation2001), a specific focus on a particular product category (i.e. physical activity apparel) is warranted. Therefore, based on the above rationale, the next hypothesis proposes:

H4: Consumer satisfaction with physical activity apparel correlates with behavioural loyalty towards physical activity apparel (positive word of mouth and repurchase intentions).

Overall, researchers have established the importance of segmenting consumers as it relates to sports-related consumption (Bae et al., Citation2009). With this importance in mind, literature points to the notion that in the context of physical activity consumers, the segmentation of CSI may have either a utilitarian or hedonic orientation (Lysonski & Durvasula, Citation2013; Zhou et al., Citation2010), and that these orientations may impact attitudes towards athletic-related products. In turn, as devotion towards an activity grows, participants may experience an increased level of involvement (Havitz & Dimanche, Citation1997, Citation1999; Kyle et al., Citation2007) and favourable attitudes may manifest and impact purchase behaviour towards products that contribute to consumers' active lifestyles (Lee et al., Citation2009). In turn, these behaviours are likely to lead to higher levels of satisfaction (Oliver, Citation2010) and loyalty behaviours, as measured by positive WOM and repurchase intentions (Bagozzi, Citation1992; Jones et al., Citation2006; Oliver, Citation1999; Tsiotsou, Citation2006).

Methods

Data collection and questionnaire development

Because the major objective of this study is to understand active consumers' shopping behaviour regarding physical activity apparel, data were collected through an intercept method at three different road-running races (e.g. 5 km/10 km races) and from a campus recreation facility in a Southeastern city in the U.S.A. In line with previous research on participant involvement (Havitz & Dimanche, Citation1997; Kyle, Kerstetter, & Guadagnolo, Citation2002), by collecting data from both road races and a recreation center, it allowed for a diverse population of physical activity apparel users to be selected from various leisure activities (e.g. running, yoga, basketball, weight lifting, etc.) at these locations. These locations also provided ease of access to survey participants who were actively involved in activities and commonly wear apparel for physical activity. The respondents were asked to participate voluntarily in the study. No incentive was offered.

Items for measuring consumers' decision-making styles were adapted from Sproles and Kendall (Citation1986) consumer styles inventory (CSI) scale of 27 items to fit the context of physical activity apparel. Consumers' decision-making styles were measured using a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). Scales assessing consumers' utilitarian and hedonic attitudes toward physical activity apparel comprised eight items, four of which captured utilitarian aspects (e.g. I perceive athletic wear as useful for my sport), while the other four captured hedonic aspects (e.g. I perceive athletic wear as an enjoyable product). These items were adapted from Batra and Ahtola (Citation1990) and Voss et al. (Citation2003) and were measured using five-point semantic differential scales.

Actual purchase was assessed using a single-item scale developed by researchers and measured using a five-point Likert-type scale (1 = Never shopped for athletic clothing, 5 = Shop at least once a month for athletic clothing). Satisfaction (e.g. Overall, I am satisfied with my athletic clothing brand), behavioural loyalty in terms of WOM (i.e. I will recommend my favourite athletic brands to my friends and family) and repurchase intention (e.g. the likelihood of repurchasing my favourite athletic brand is high) measures were adapted from Hartline and Jones (Citation1996) and Oliver (Citation1999). Demographic information was assessed via categorical items. To make items relatable to respondents, the word 'athletic' was used to represent physical activity.

Results

Descriptive statistics

Table 2 shows characteristics of the sample participants used in this study. A total of 303 respondents participated in this study. Among the respondents, 143 (47.2%) were female, and most were between the ages of 18 and 25 (56.8%) and had an income of less than \$50,000 (59.8%). Education level was fairly evenly distributed among the participants. Respondents identified mostly as Caucasian (67%), followed by African-American (16.5%), Asian (7.3%), Hispanic (3%) and Native American (.7%).

Table 2. Participants' characteristics.

Characteristics	Total	Percentage
Number of participants	303	100
Gender		
Male	143	47.2
Female	138	45.5
Missing	22	7.3
Age (Years)		
18–25	172	56.8
26–30	27	8.9
31–35	20	6.6
36–40	23	7.6
41–45	23	7.6
46–50	12	4.0
Over 50	18	5.9
Missing	8	2.6
Annual Income (\$)		
Less than 30,000	96	31.7
30,001–50,000	45	14.9
50,001–70,000	40	13.2
70,001–90,000	35	11.6
90,001–110,000	29	9.6
Over 110,001	44	14.5
Missing	14	4.6
Education		
High school/GED	33	11
Some college	92	30.6
2 year college degree	16	5.3
4 year college degree	106	35.2
Master's	47	15.6
Doctorate	2	.7
Professional degree	5	1.7
Missing	2	.7
Race		
Caucasian	203	67
African American	50	16.5
Asian	22	7.3
Hispanic	9	3
Native American	2	.7
Other	15	5
Missing	2	.7

Table 3. Means, standard deviations and Pearson product correlations among the major constructs.

Variables	Mean	Standard deviation	1	2	3	4	5	6	7	8	9	10
High quality consciousness/perfectionism	3.50	.91	1									
Novelty/Fashion consciousness	2.85	1.00	.32**	1								
Brand consciousness	2.74	.79	.49**	.49**	1							
Confusion by overchoice	2.63	.91	.03	.23**	.28**	1						
Utilitarian attitudes	4.12	.94	.30**	.20**	.26**	-.06	1					
Hedonic attitudes	3.76	.94	.34**	.35**	.35**	.07	.73**	1				
Actual Purchase	3.19	.97	.28**	.44**	.28**	-.02	.23**	.37**	1			
Satisfaction	4.00	.74	.37**	.29**	.26**	-.17**	.46**	.47**	.34**	1		
Word of mouth	3.87	.95	.43**	.37**	.28**	.04	.34**	.41**	.29**	.63**	1	
Repurchase intention	4.08	.81	.37**	.25**	.24**	-.10	.33**	.35**	.29**	.56**	.50**	1

Table 3 reveals the means, standard deviations and correlation matrix among the ten constructs. The means ranged from 2.85 to 4.12, and the standard deviations ranged from .79 to 1.0 based on a five-point Likert-type scale. The values of the correlations ranged from .03 to .73, and the majority of constructs were significantly correlated ($p < .01$), with the exception of the correlation between the decision-making styles of 'high quality consciousness/perfectionism' and 'confusion by overchoice.' Satisfaction also did not correlate with other constructs, with the exception of its negative correlation with the decision-making style of 'confusion by overchoice.'

Exploratory factor analysis

Prior to the final data analysis, an initial exploratory factor analysis with varimax rotation was conducted to identify the dimensions of physically active consumers' decision-making styles. Exploratory factor analysis was conducted to explore the underlying theoretical structure of the phenomena. That is, exploratory factor analysis investigated the theoretical constructs that might be represented by a set of items in this dataset (Nunnally & Bernstein, Citation1994). To set the criteria for factor analysis, factors with eigenvalues of less than 1.5 were removed on the basis of results from a screen test and interpretability of the factors (Kim & Mueller, Citation1978). In addition, items with factor loadings of 0.50 or higher on only one factor were retained. The results of the factor analysis revealed that four factors accounted for 54.30% of the cumulative variation in athletic consumers' decision-making styles. The first factor ($\alpha = 0.90$), high quality consciousness/perfectionism, consisted of five items with an eigenvalue of 6.07 and explained 26.37% of the variance. The second factor ($\alpha = 0.82$), novelty/fashion consciousness, consisted of three items with an eigenvalue of 2.69 and explained 11.01% of the variance. The third factor ($\alpha = 0.77$), brand consciousness, consisted of four items with an eigenvalue of 2.03 and explained 8.84% of the variance. The fourth factor ($\alpha = 0.79$), confusion by overchoice, consisted of three items with an eigenvalue of 1.70 and explained 7.37% of the variance. The first and fourth factors (i.e. high quality consciousness/perfectionism and confusion by overchoice) captured the utilitarian aspects of decision-making styles. Likewise, the second and the third factors (i.e. novelty/fashion consciousness and brand consciousness) captured the hedonic aspects of decision-making styles.

Assessment of validity and reliability of measures

A confirmatory factor analysis (CFA) using LISREL 8.8 with maximum-likelihood (ML) estimation was performed to assess the psychometric properties of the multi-item scales for the eight latent constructs. As recommended by Schumacker and Lomax (Citation2004), two items were removed due to poor loading values (i.e. < 0.50). In addition, the analysis followed Joreskog and Sorbom (Citation1993) recommendation to establish a conservative error variance for single-item scales (i.e. actual purchase and WOM). Thus, the measurement model consisted of ten 30-item constructs (Table 4). All loadings were statistically significant, suggesting that each construct possessed convergent validity. In addition, the average variance explained (AVE) for each construct ranged from 0.55 to 0.88, demonstrating acceptable convergent validity (Bagozzi & Yi, Citation1991). The correlations among the constructs ranged from 0.01 to 0.86. Evidence of discriminant validity was confirmed by demonstrating that none of the square correlations between two constructs was greater than the average variance extracted for each construct, suggesting that the concepts are distinguishable based on the item used to measure them (Fornell & Larcker, Citation1981). Lastly, the composite reliability (CR) of all measures ranged from 0.78 to 0.96 and

Table 4. Measurement model results of latent variables.

Constructs/Indicators	Standardized factor loading (t-value)
High Quality Consciousness/Perfectionism (ξ_1) (CR = 0.91, AVE = 72.75%)	
X ₁ : When it comes to purchasing athletic clothing, I try to get the highest quality.	0.87 (- ^a)
X ₂ : I usually try to buy the best-quality athletic clothing.	0.91***
X ₃ : I make a special effort to choose the best-quality athletic clothing.	0.87***
X ₄ : My expectations for the athletic clothing I buy are very high.	0.75***
Novelty/Fashion Consciousness (ξ_2) (CR = 0.81, AVE = 59.00%)	
X ₅ : I keep my wardrobe up-to-date with the changing fashions of athletic apparel.	0.81 (- ^a)
X ₆ : Fashionable, attractive athletic clothing is very important to me.	0.73***
X ₇ : I usually have one or more outfits of the very latest athletic clothing styles.	0.76***
Brand Consciousness (ξ_3) (CR = 0.83, AVE = 63.12%)	
X ₈ : I usually choose expensive brands of athletic clothing.	0.72 (- ^a)
X ₉ : I think that the higher price of the athletic clothing, the better the quality.	0.62***
X ₁₀ : I prefer buying the best-selling athletic clothing.	0.81***
X ₁₁ : Advertised athletic clothing displayed in a store window/catalog is a good choice.	0.50***
Confusion by Overchoice (ξ_4) (CR = 0.78, AVE = 55.00%)	
X ₁₂ : Sometimes, it is hard to choose which store to shop for athletic clothing.	0.59 (- ^a)
X ₁₃ : All of the information I get on different athletic clothing confuses me.	0.78***
X ₁₄ : The more I learn about athletic clothing, the harder it seems to choose the best type.	0.83***
Utilitarian Attitudes (η_1) (CR = 0.95, AVE = 82.00%)	
Y ₁ : Ineffective – Effective	0.87 (- ^a)
Y ₂ : Not functional – Functional	0.94***
Y ₃ : Impractical – Practical	0.87***
Y ₄ : Useless – Useful	0.94***
Hedonic Attitudes (η_2) (CR = 0.91, AVE = 77.67%)	
Y ₅ : Dull – Exciting	0.87 (- ^a)
Y ₆ : Not enjoyable – Enjoyable	0.86***
Y ₇ : Not playful – Playful	0.91***
Actual Purchase (η_3)	
Y ₈ Shopping frequency for athletic clothing.	0.74 (- ^a)
Satisfaction (η_4) (CR = 0.92, AVE = 75.00%)	
Y ₉ : I am pleased with the athletic brand I wear most often.	0.89 (- ^a)
Y ₁₀ : I am content with the athletic brand I wear most often.	0.92***
Y ₁₁ : Overall, I am satisfied with the athletic brand I wear most often.	0.88***
Y ₁₂ : The athletic brand I wear most often meets all of my athletic needs.	0.77***
Word-of-Mouth Intention (η_5)	
Y ₁₃ : I will recommend my favourite athletic brands to my friends and family.	0.77 (- ^a)
Repurchase Intention (η_6) (CR = 0.96, AVE = 88.00%)	
Y ₁₄ : The likelihood of repurchasing my favourite athletic brand is high.	0.92 (- ^a)
Y ₁₅ : The probability I will buy my favourite athletic brand in the future is high.	0.92***
Y ₁₆ : My willingness to repurchase my favourite athletic brand is high.	0.97***

Structural model and hypothesis testing

Structural equation modeling (SEM) was performed to test the hypothesized relationships. The results revealed that the proposed model had a significant chi-square value ($\chi^2 = 1226.01$, $df = 416$, $p < .001$), indicating that the hypothesized model did not adequately fit the data. However, this statistical test is known to be oversensitive and biased toward rejection. Thus, other fit indexes were employed to assess the model's fit, including normed chi-square, normed fit index (NFI), comparative fit index (CFI), Tucker-Lewis index (TLI) and root mean square error of approximation (RMSEA). These results yielded a χ^2/df of 2.95, NFI of 0.93, CFI of 0.95, TLI of 0.95 and RMSEA of 0.074, suggesting that the hypothesized structural relationships fit the data reasonably. Three consumer decision-making styles (high quality consciousness/perfectionism, novelty/fashion consciousness and confusion by overchoice) explained 21 and 31% of the variance for utilitarian and hedonic attitudes, respectively. In addition, utilitarian and hedonic attitudes explained 44% of the variance found in actual purchase, and actual purchase explained 72% of the variance found in consumer satisfaction. Furthermore, consumer satisfaction explained 74% of the variance found in WOM intention and 39% of the variance found in repurchase intention (i.e. behavioural loyalty measures).

Upon testing H1, the decision-making styles of 'high quality consciousness/perfectionism' and 'novelty/fashion consciousness' were found to have direct, positive effects on both utilitarian ($\gamma_{11} = 0.16$, $t = 2.08$, $p < .05$; $\gamma_{12} = 0.29$, $t = 3.15$, $p < .01$) and hedonic ($\gamma_{21} = 0.16$, $t = 2.17$, $p < .05$; $\gamma_{22} = 0.39$, $t = 4.36$, $p < .001$) attitudes. The 'confusion by overchoice' decision-making style had a direct, negative effect on both utilitarian ($\gamma_{14} = -0.24$, $t = -3.56$, $p < .001$) and hedonic ($\gamma_{24} = -0.15$, $t = -2.25$, $p < .01$) attitudes. Although the utilitarian aspects of decision-making styles (i.e. high quality consciousness/perfectionism and confusion by overchoice) did not exert the greatest influence on utilitarian attitudes (i.e. $\gamma_{11} = 0.16$ and $\gamma_{14} = -0.24$ as compared to $\gamma_{12} = 0.29$), the hedonic aspects (i.e. novelty/fashion consciousness and brand consciousness) did have the greatest influence on the hedonic attitudes (i.e. $\gamma_{22} = 0.39$ as compared to $\gamma_{21} = 0.16$ and $\gamma_{24} = -0.15$). Thus, H1 was partially supported.

Next, H2 had proposed that utilitarian and hedonic attitudes would have direct, positive effects on the actual purchase. The results revealed that both utilitarian and hedonic attitudes had significant, positive effects on the actual purchase ($\beta_{31} = 0.12$, $t = 1.99$, $p < .05$; $\beta_{32} = 0.63$, $t = 6.23$, $p < .001$). Thus, H2 was supported. The results further revealed that actual purchase had a significant, positive effect on satisfaction ($\beta_{43} = 0.85$, $t = 6.86$, $p < .001$), thereby supporting H3. Lastly, H4 had stated that consumer satisfaction would have a significant effect on behavioural loyalty measures (WOM and repurchase intentions). This hypothesis was also supported, since consumer satisfaction had a direct, positive effect on behavioural loyalty in terms of WOM and repurchase intentions ($\beta_{54} = 0.86$, $t = 13.50$, $p < .001$; $\beta_{64} = 0.62$, $t = 11.63$, $p < .001$) (Figure 1).

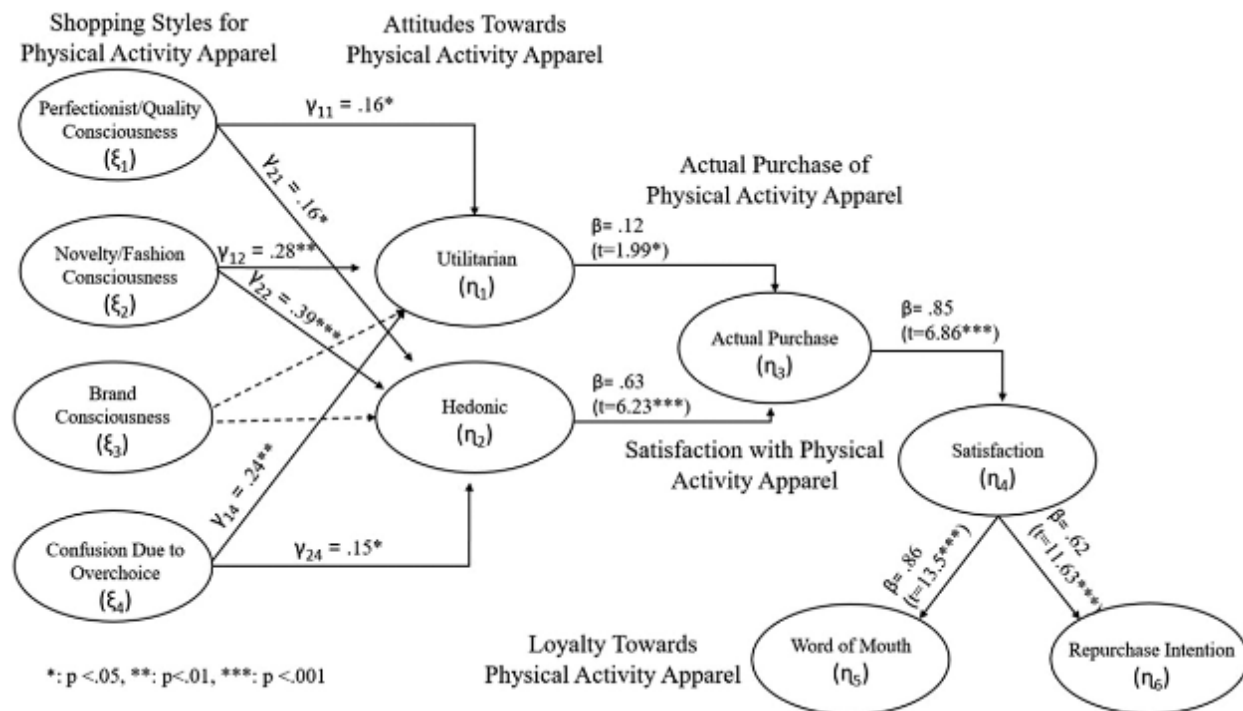


Figure 1. Consumers' loyalty toward physical activity apparel shopping model.

Discussion and conclusions

As an increasing number of individuals are enjoying their leisure time by participating in physical activity, the active apparel market has seen rapid growth on a global scale (Alva, Citation2012; Global Industry Analysts, Citation2013). Clearly, shoppers are altering their consumption patterns to align with their active lifestyles (Reuters, Citation2012). A unique feature of physical activity apparel items can be found in their appeal to consumers as both functional and fashionable products. That is, consumers seek athletic apparel that offers style as well as functionality (Kell, Citation2014).

To understand leisure consumers of physical activity apparel more fully, this study sought to answer two major research questions: RQ1) How do consumers shop (i.e. shopping styles) for their physical activity apparel? and RQ2) What leads to consumers' behavioural loyalty towards physical activity apparel? To address these research questions, this study successfully developed and tested a model that helps to explain the shopping behaviour of actual active individuals in a large physical activity apparel market (i.e. U.S.A.). By utilizing active participants, this study specifically captured responses of individuals who participate in physical activity as part of their leisure time.

This study investigated how active individuals shop for physical activity apparel, specifically in terms of their decision-making styles. Following exploratory factor analysis, it was found that most physical activity apparel consumers were concerned with high quality consciousness/perfectionism (utilitarian aspect; 26.37% variance explained) and, as a result, would not compromise on a garment's quality standards. Moreover, active consumers were also concerned with the novelty/fashion of the apparel they wore during physical activity (hedonic aspect; 11.01% variance explained). Thus, this research provides evidence that active consumers

also seek new styles and innovations in the physical activity apparel they wear during their active leisure time. Participants also made consumer decisions based on brand consciousness (hedonic aspect; 8.84% variance explained) and reported being confused by overchoice (utilitarian aspect; 7.37% variance explained). Thus, while physical activity apparel consumers preferred well-known, advertised brands (i.e. brand consciousness), they also felt they could not manage all the available choices in the market (i.e. confusion by overchoice). Nonetheless, this result should be interpreted with caution because these segmentations may not apply exclusively to those who were surveyed. That is, there may be groups of individuals that are effectively able to manage and negotiate the vast available choices of athletic apparel in the marketplace.

Clearly, as our data suggests, consumers are concerned with both the utilitarian and hedonic aspects of the apparel they wear during physical activity, supporting Zhou et al.'s (Citation2010) suggestion that decision-making styles can be evaluated as either utilitarian or hedonic. Of these types of styles, this research found that hedonic aspects (i.e. novelty/fashion consciousness and brand consciousness) possessed the greatest amount of influence on hedonic attitudes, whereas utilitarian aspects (high quality consciousness/perfectionism and confusion by overchoice) did not possess the strongest influence on utilitarian attitudes (H1). Indeed, those who seek physical activity apparel for its style, innovation and well-known advertising are attracted to the fun, exciting, enjoyable and playful aspects of apparel brands associated with hedonic characteristics. While researchers have established the importance of measuring consumer decision-making styles as it relates to athletic consumption (Bae et al., Citation2009, Citation2015; Bae & Miller, Citation2009; Bae et al., Citation2010), our mixed findings indicate that hedonic or sensory stimulation dominate (Havitz & Dimanche, Citation1997; Holbrook & Hirschman, Citation1982) which impacts participant's attitudes towards physical activity apparel. The increasing popularity of athleisure, a growing fashion trend that refers to a style that is designed mainly for athletic wear, but can also be worn for non-athletic activities and casual wear (Loring, Citation2015), may help to explain this result. In this case, athletic wear produced today follows fashion trends and often worn for everyday wear. Today's fashion-focused athletic wear may encourage the dominance of hedonic-related decision-making styles, despite the utilitarian nature of the garments. Additional research should explore this avenue, particularly given the current athleisure trend.

Second, based on physical activity apparel's unique association with both functional and fashionable features, this study investigated whether apparel shoppers' utilitarian and hedonic attitudes impacted consumers' purchase behaviour toward physical activity apparel. This research confirmed that consumers' utilitarian (H2a) and hedonic (H2b) attitudes towards physical activity apparel products positively influenced their actual purchase of physical activity apparel. While this finding is unique, it suggests that active apparel shoppers are motivated to purchase the same product category based on two distinct attitudes. These results confirm previous research findings that attitudes can influence shopping behaviour (Jones et al., Citation2006; Wertebroch & Dhar, Citation2000). In particular, the bi-directional (utilitarian and hedonic) nature of consumers' attitudes have an impact on consumer behaviour (Batra & Ahtola, Citation1990; Fowler, Citation1999). This is particularly important because, as more brands enter the market for physical activity apparel, an understanding of how attitudes reflect actual purchases may help these brands to emphasize or tailor their messages in ways that can appeal most efficiently to these consumer attitudes.

Lastly, this study found that the actual purchase of physical activity apparel products positively influences consumer satisfaction (H3), which in turn positively influences behavioural loyalty towards physical activity apparel in terms of positive WOM and repurchase intentions

(H4). This result contributes to previous leisure research that found satisfaction to be an important component (Beard & Ragheb, Citation1980; Bloch & Bruce, Citation1984; Francken & Raaij, Citation1981; Ragheb, Citation1980; Ragheb & Tate, Citation1993; Riddick, Citation1986), particularly of leisure activities (Bloch & Bruce, Citation1984). Expanding on this previous research, this study finds that satisfaction in the context of physical activity apparel is important because it can have a positive impact on consumers' behavioural loyalty (positive WOM and repurchase intentions) toward physical activity brands. That is, in line with previous studies (Kim, Citation2011; Tong & Hawley, Citation2009), consumers may develop positive evaluations towards the brand (Bloemer & Kasper, Citation1995), tell others about their pleasurable experiences with the brand (Dichter, Citation1966; Zeithaml et al., Citation1996) and plan to repurchase the brand in the future (Biscais et al., 2013; O'Curry & Strahilevitz, Citation2001). This result is particularly important because it may have an impact on whether individuals plan to participate in physical activity in the future.

Further, while these relationships have been tested in other apparel contexts, it is vital to test these claims on physical activity apparel shoppers (see Hubbard & Armstrong, Citation1994; Hunter, Citation2001), because these consumers (Bae et al., Citation2009; Bae & Miller, Citation2009) and their consumption patterns differ from those of other apparel shopping sectors (Davies, Citation2002; Lamb et al., Citation1992; Scheerder et al., Citation2011), specifically in their dual concern for both the functionality and the fashionability of their apparel products.

Implications

Leisure and consumerism are inexorably linked in the modern age of the pursuit of leisure activities (Juniu, Citation2009). As evidenced by the continued sales growth of physical activity apparel, purveyors of physical activity apparel may stand to gain from the outcomes of this study. Our findings provide strong implications for physical activity apparel developers based on an investigation of apparel shopping patterns from actual active consumers. Ideally, the findings of this study will be useful for apparel developers to more accurately understand and meet the needs of the growing population of individuals who participate in physical activity-based leisure activities.

First, a broader understanding of consumer decision-making styles may be helpful for physical activity apparel marketers, because the results suggest that specific decision-making styles can influence attitudes towards physical activity apparel and actual purchase. This identification may allow physical activity apparel companies to more effectively segment shoppers by applying a more focused product development technique to better meet active consumers' design needs (Bae & Miller, Citation2009). For example, our research provides evidence that consumers are highly concerned with high quality/perfectionism and the novelty/fashion aspects in the apparel garment brands they wear during physical activity. Yet, these same consumers are often overwhelmed with the amount of choices available to them in the market. Thus, to better meet consumer needs, physical activity apparel marketers need to ensure that both the quality and style of their garments are exceptional. Moreover, marketers have an opportunity to actively advertise these factors to differentiate and highlight these features while assisting consumers that may be confused by the vast amount of choice in the marketplace.

Furthermore, our findings reveal that physical activity apparel shoppers who are driven by hedonic characteristics are likely to display a high level of favourable hedonic attitudes towards apparel worn during physical activity (H1). Based on this information, to better meet the needs of

active consumers who are interested in new fashion styles and well-known brands, apparel marketers should emphasize the hedonic aspects of the garments, such as their fun, exciting and playful components. Popular physical activity apparel brands that typically follow seasonal fashion trends, such as Lulu Lemon and Athletica (Menachem, Citation2014), may benefit from coordinating promotional material highlighting these product features.

Moreover, our finding that actual purchase can lead to satisfaction, and subsequently behavioural loyalty, can offer key insights to apparel marketers. As this research suggests, consumers possess bi-directional attitudes towards physical activity apparel as they are generally concerned with both the functional (e.g. performance, price) and the hedonic (brand and style) aspects of their active apparel. Therefore, creating physical activity apparel products in a way that offers consumers both of these aspects would present opportunities for greater sales (i.e. actual purchase) (H2), thus leading to higher levels of satisfaction with (H3) and behavioural loyalty towards (H4) a given brand of physical activity apparel. Thus, through the generation of consumer brand behavioural loyalty (i.e. WOM and repurchase behaviour), physical activity apparel brands should carefully emphasize the product's performance, as well as its style and fashion forwardness. For instance, firms that typically emphasize the performance aspects of their brands (e.g. North Face) may want to consider incorporating more fashion trends to appeal to the hedonic attitudes of their consumers. Likewise, fashion apparel brands that have entered the physical activity apparel market (e.g. H&M) should also highlight the performance aspects of their apparel brand to appeal to the utilitarian attitudes of their consumers.

This research adds value to current leisure literature in three distinct ways: (1) the research develops, creates and effectively tests an empirical model for participant consumer behaviours for products (physical activity apparel) used by participants in leisure settings, specifically active leisure (road races and fitness centers); (2) the research helps bridge the understanding between active leisure participants and consumer behaviour by actively linking CSI characteristics and hedonic and utilitarian attitudes towards tools and equipment (physical activity apparel) used in active leisure; (3) the research provides new insights on active leisure participants' attitudinal influence on behavioural loyalty for physical activity apparel in an active leisure context.

First, in line with Atadil et al.'s (Citation2018) suggestion of a need for more rigorous quantitative models for assessing CSI styles and their influence in a leisure context, the current research extends this call through creating a robust structural equation model that addresses current research objectives of understanding CSI styles, utilitarian and hedonic attitudes and loyalty behaviours for one category of equipment utilized in active leisure. Relative to the research design, the model yields significant results and provides a new understanding of these active leisure participants. An approach not seen in the current literature, the current model provides an opportunity to be applied in other leisure contexts for a variety of participants in other forms of active leisure (e.g. camping, rafting, hiking, etc.) and other types of equipment and gear used for active leisure (e.g. tents, boats, backpacks) to gain new theoretical and practical knowledge for purveyors of this active leisure equipment.

Second, while most CSI research in the leisure context has centered on segmentation and leisure-related preferences (e.g. tourism destinations) of its participants based on CSI styles, this research goes further to understand the CSI influence on attitudinal choices and behavioural loyalty (repurchase behaviour and word of mouth) for the actual products used in active leisure. Moreover, this research draws from extant literature in leisure as well as consumer behaviour within the shopping context and seeks to provide insights on consumption behaviours specifically of leisure participants, again not often seen in the current literature. This research brings to light the notion

of consumption of leisure and its importance in the current climate of growth in global active leisure participation.

Lastly, as leisure entities seek to differentiate themselves in a growing global marketplace, a deeper understanding of its participants becomes increasingly important. The current research sheds light on a small segment of these active leisure participants and conclude that behavioural loyalty is impacted by product choices for physical activity apparel. This affords new insights into this consumer segment whereby worldwide usage of social media have become an important platform for easily sharing and spreading word of mouth for a variety of branded products (Pfeffer, Zorbach, & Carley, Citation2013).

Limitations and future research directions

The first limitation of this study relates to its generalizability. While this study employed an interception method to select actual active consumers, many of the respondents were young (age 18–25) and data was cross-sectional. Thus, our results may not apply directly to other consumer age groups and data should next be collected using longitudinal panel surveys. Given that older consumers may experience different physical constraints when participating in leisure activities (Gibson, Citation2006; Lawton, Citation1994; Losier, Bourque, & Vallerand, Citation1993), future research should test these relationships with an older consumer group to verify the results. Similarly, while researchers administered the survey at running events and a recreation center to select actual active shoppers, it is possible that shoppers who participate in other athletic activities may display different shopping patterns. For instance, it is possible that participants of recreation service agencies may exhibit different patterns of behavioural loyalty (Iwasaki & Havitz, Citation2004); therefore, future research should be conducted in other avenues of physical activity to provide a broader scope of leisure activities. Along these lines, by collecting data longitudinally, data collected will be stronger for making casual inferences (Rindfleisch, Malter, Ganesan, & Moorman, Citation2008). Further, it is possible that when collecting data using a panel longitudinally (over a lifespan), we will begin to see that even the most highly involved and behaviourally loyal participants, may naturally experience highs and lows in their commitment to physical activity. It is important for future research to pursue this avenue for a clearer understanding the role of apparel choices during these lifelong experiences.

Second, based on the results of H1, future research should begin to investigate the impact of the growing athleisure fashion trend. Currently, athletic apparel follows fashion trends and consumers are increasingly wearing physical activity apparel for non-athletic activities and casual wear (Loring, Citation2015). Further research should investigate physical activity apparel choices that are used to perform physical activity and non-physical activity. Perhaps, when consumers choose to wear physical activity apparel as part of their casual wear, it may help to encourage actual physical activity. This avenue is well-worth exploring considering the importance of physical activity for health and well-being.

Third, this study exclusively measured behavioural loyalty as the dependent variable. While we were interested in understanding consumers' readiness to act, by including additional measures of loyalty (i.e. cognitive, affective and conation loyalty), researchers can establish a full picture of factors that impact consumers' loyalty towards athletic apparel.

Lastly, while the physical activity market is growing on a global scale, this research was conducted in only one country, the U.S.A. Although this country was selected for data analysis due to its large segment of active individuals, it is possible that other countries might exhibit different

decision-making styles (Khare, Khare, Mukherjee, & Goyal, Citation2016). Nonetheless, further research should be conducted in other global locations, such as the Asia-Pacific region (Kasriel, Citation2015c), and specifically in China, where physical activity apparel is also experiencing large market growth (Tong & Hawley, Citation2009). As such, the global interest in leisure activities presents opportunities to further explore cross-cultural consumption behaviours related to physical activity apparel

References

- Alva, M. (2012). Gap, target to join retail rush into athletic apparel. Retrieved from <http://news.investors.com/business/082812-623859-gap-target-join-retail-push-into-athletic-apparel.htm?src=HPLNews>
- Atadil, H. A., Sirakaya-Turk, E., Meng, F., & Decrop, A. (2018). Exploring travelers' decision-making styles. *International Journal of Contemporary Hospitality Management*, 30(1), 618–636.
- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20(4), 644–656.
- Bae, J., Lu-Anderson, D., Fujimoto, J., & Rochelieu, A. (2015). East Asian college consumers decision-making styles for sport products. *Sport, Business, and Management: an International Journal*, 5(3), 259–275.
- Bae, S., Lam, E. T. C., & Jackson, E. N. (2009). Development of the purchaser style inventory for sports products (PSISP). *International Journal for Sports Management*, 10(2), 151–168.
- Bae, S., & Miller, J. (2009). Consumer decision-making styles for sport apparel: Gender comparisons between college consumers. *The Official Publication of the International Council for Health, Physical Education, Recreation, Sport, and Dance*, 4(1), 40–45.
- Bae, S., Pyun, D. Y., & Lee, S. (2010). Consumer decision-making styles for Singaporean college consumers: An exploratory study. *The Official Publication of the International Council for Health, Physical Education, Recreation, Sport, and Dance*, 5(2), 70–76.
- Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly*, 55(2), 178–204.
- Bagozzi, R. P., & Yi, Y. (1991). Multitrait-multimethod matrices in consumer research. *Journal of Consumer Research*, 17(4), 426–439.
- Bakewell, C., & Mitchell, V. W. (2004). Male consumer decision-making styles. *The International Review of Retail, Distribution and Consumer Research*, 14(2), 223–240.
- Batra, R., & Ahtola, O. T. (1990). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters*, 2(2), 159–170.
- Bauer, H. H., Falk, H., & Hammerschmidt, M. (2006). eTransQual: A transaction process-based approach for capturing service quality in online shopping. *Journal of Business Research*, 59(7), 866–875.
- Beard, J. G., & Ragheb, M. G. (1980). Measuring leisure satisfaction. *Journal of Leisure Research*, 12(1), 20–33.

- Beatty, S. E., & Kahle, L. R. (1988). Alternative hierarchies of the attitude-behavior relationship: The impact of brand commitment and habit. *Journal of the Academy of Marketing Science*, 16(2), 1–10.
- Beverland, M., Farrelly, F., & Quester, P. (2006). Brand-personality values fit and brand meanings: Exploring the role individual values play in ongoing brand loyalty in extreme sports subcultures. *Association for Consumer Research*, 33(1), 21–28.
- Bloch, P. H. (1993). Involvement with adornments as leisure behavior: An exploratory study. *Journal of Leisure Research*, 25(3), 245–262.
- Bloch, P. H., Black, W. C., & Lichtenstein, D. (1989). Involvement with the equipment component of sport: Links to recreational commitment. *Leisure Sciences*, 11(3), 187–200.
- Bloch, P. H., & Bruce, G. D. (1984). The leisure experience and consumer products: An investigation of underlying satisfactions. *Journal of Leisure Research*, 16(1), 74–88.
- Bloemer, J. M., & Lemmink, J. G. A. M. (1992). The importance of customer satisfaction in explaining brand and dealer loyalty. *Journal of Marketing Management*, 8(4), 351–364.
- Bloemer, J. M. M., & Kasper, H. D. P. (1995). The complex relationship between consumer satisfaction and brand loyalty. *Journal of Economic Psychology*, 16(2), 311–329.
- Bridel, W. (2015). From bar bet to fitness craze for weekend warriors: A genealogical analysis of the Ironman® triathlon. *Leisure/Loisir*, 39(1), 81–105.
- Chae, M.-H., Black, C., & Heitmeyer, J. (2006). Pre-purchase and post-purchase satisfaction and fashion involvement of female tennis wear consumers. *International Journal of Consumer Studies*, 30(1), 25–33.
- Chang, S. Y. (2011). The influence of novelty-seeking and risk-perception behavior on holiday decisions and food preferences. *International Journal of Hospitality & Tourism Administration*, 12(4), 305–329.
- Clark, K. (2016). Fitness trends for 2016. *The Star*. Retrieved from https://www.thestar.com/life/health_wellness/2016/01/18/fitness-trends-for-2016.html
- Correia, A., Kozak, M., & Ferradeira, J. (2011). Impact of culture on tourist decision-making styles. *International Journal of Tourism Research*, 13(5), 433–446.
- Cowart, K. O., & Goldsmith, R. E. (2007). The influence of consumer decision-making on online apparel consumption by college students. *International Journal of Consumer Studies*, 31(6), 639–647.
- Dabholkar, P. A., Shepherd, C. D., & Thorpe, D. I. (2000). A comprehensive framework for service quality: An investigation of critical conceptual and measurement issues through a longitudinal study. *Journal of Retailing*, 76(2), 139–173.
- Davies, L. E. (2002). Consumers' expenditure on sport in the UK: Increased spending or underestimation? *Managing Leisure*, 7(2), 83–102.
- Decrop, A., & Zidda, P. (2006). Typology of vacation decision-making modes. *Tourism Analysis*, 11(3), 189–197.
- Dichter, E. (1966). How word-of-mouth advertising works. *Harvard Business Review*, 44(6), 147–160.

- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryang, B. E. (1996). The American customer satisfaction index: Nature, purpose, and findings. *Journal of Marketing*, 60(4), 7–18.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Fowler, D. (1999). The attributes sought in sports apparel: A ranking. *Journal of Marketing Theory and Practice*, 7(4), 81–88.
- Francken, D. A., & Raaij, W. (1981). Satisfaction with leisure time activities. *Journal of Leisure Research*, 13(4), 337–352.
- Germano, S. (2014). Yoga poseurs: Athletic gear soars, outpacing sport itself. Retrieved from <http://www.wsj.com/articles/yoga-poseurs-athletic-apparel-moves-out-of-the-gym-to-every-day-1408561182>
- Gibson, H. J. (2006). Leisure and later life: Past, present and future. *Leisure Studies*, 25(4), 397–401.
- Global Industry Analysts. (2013). Sports and fitness markets grow big: Athletic apparel to reach \$180.9 Billion and nutritional foods and drive to touch \$55 Billion by 2018. Retrieved from http://www.bizjournals.com/prnewswire/press_releases/2013/03/04/CG70520
- Goodfellow, A. (2013). The athletic apparel industry: Fitness or fashion? Retrieved from <http://universe.byu.edu/2013/07/30/the-athletic-apparel-industry-fitness-or-fashion/>
- Grabler, K., & Zins, A. H. (2002). Vacation trip decision styles as basis for an automated recommendation system: Lessons from observational studies. In K. Wöber, A. Frew, & M. Hitz (Eds.), *Information and communication technologies in tourism* (pp. 458–469). Vienna: Springer.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7). Upper Saddle River, NJ: Pearson.
- Hartline, M. D., & Jones, K. C. (1996). Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intentions. *Journal of Business Research*, 35(3), 207–215.
- Havitz, M. E., & Dimanche, F. (1997). Leisure involvement revisited: Conceptual conundrums and measurement advances. *Journal of Leisure Research*, 29(3), 245–278.
- Havitz, M. E., & Dimanche, F. (1999). Leisure involvement revisited: Drive properties and paradoxes. *Journal of Leisure Research*, 31(2), 122–149.
- Holbrook, M. B., & Hirschman, E. C. (1982). The experiential aspect of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), 132–140.
- Hubbard, R., & Armstrong, S. J. (1994). Replications and extensions in marketing: Rarely published but quite contrary. *International Journal of Research in Marketing*, 11(3), 233–248.
- Hunter, J. E. (2001). The desperate need for replications. *Journal of Consumer Research*, 28(1), 149–158.

- Iwasaki, Y., & Havitz, M. E. (2004). Examining relationships between leisure involvement, psychological commitment and loyalty to a recreation agency. *Journal of Leisure Research*, 36(1), 45–72.
- Johnson, M. D., Andreassen, T. W., Lervik, L., & Cha, J. (2001). The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22(2), 217–245.
- Jones, M. A., Reynolds, K. E., & Arnold, M. J. (2006). Hedonic and utilitarian shopping value: Investigating differential effects on retail outcomes. *Journal of Business Research*, 59(9), 974–981.
- Joreskog, K. G., & Sorbom, D. (1993). LISREL 8 user's reference guide. Chicago, IL: Scientific Software.
- Juniu, S. (2009). The transformation of leisure. *Leisure/Loisir*, 33(2), 463–478.
- Kasriel, D. (2015a). Get moving! European consumers and exercise. Euromonitor. Retrieved from www.portal.euromonitor.com.
- Kasriel, D. (2015b). Get moving! Consumers and exercise in Latin America. Euromonitor. Retrieved from www.portal.euromonitor.com
- Kasriel, D. (2015c). Get moving! Consumers and exercise in the Asia-Pacific region. Euromonitor. Retrieved from www.portal.euromonitor.com
- Kasriel, D. (2016). Get moving! Consumers and exercise in North America. Euromonitor. Retrieved from www.portal.euromonitor.com
- Kell, J. (2014). Athletic apparel: Outperforming the competition in 2014. Retrieved from <http://fortune.com/2014/12/25/athletic-apparel-top-performer/>
- Keough, M., Abravanel, M., & Mcbrearty, M. (2015). Exploring physical activity preferences across the lifespan. *Leisure/Loisir*, 39(3–4), 323–344.
- Khare, A., Khare, A., Mukherjee, S., & Goyal, T. (2016). Do consumer shopping styles influence consumer attitudes toward services offered by shopping websites? *Journal of International Consumer Marketing*, 28(1), 28–41.
- Kiesler, C. A. (1968). Commitment. In P. A. Abelson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds.), *Theories of cognitive consistency: A source book* (pp. 448–455). Chicago, IL: Rand McNally.
- Kim, C. H. (2011). The effect of the leisure sports motivation, self-efficacy and sport commitment on the satisfaction with function and repurchase intention of the leisure sports wear (Unpublished doctoral dissertation). Chungang University, Seoul.
- Kim, J. O., & Mueller, C. W. (1978). *Introduction to factor analysis: What it is and how to do it*. Newbury Park, CA: Sage Publications.
- Kramer, P. (2014). Lululemon's brand loyalty saves company from financial failure. Retrieved from <http://dailyorange.com/2014/02/kramer-lululemons-brand-loyalty-saves-company-from-financial-failure/>
- Kyle, G., Absher, J., Norman, W., Hammitt, W., & Jodice, L. (2007). A modified involvement scale. *Leisure Studies*, 26(4), 399–427.

- Kyle, G., Graefe, A., & Manning, R. (2003). Satisfaction derived through leisure involvement and setting attachment. *Leisure/Loisir*, 28(3–4), 277–305.
- Kyle, G. T., Kerstetter, D. L., & Guadagnolo, F. B. (2002). Market segmentation using participant involvement profiles. *Journal of Park and Recreation Administration*, 20(1), 1–21.
- Lamb, L. L., Asturias, L. P., Roberts, K., & Brodie, D. A. (1992). Sport participation: How much does it cost? *Leisure Studies*, 11(1), 19–29.
- Laurent, G., & Kapferer, J. N. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research*, 22(1), 41–53.
- Lawton, M. P. (1994). Personality and affective correlates of leisure activity participation by older people. *Journal of Leisure Research*, 26(2), 138–157.
- Lee, H. J., Lim, H., Jolly, L. D., & Lee, J. (2009). Consumer lifestyles and adoption of high-technology products: A case of South Korea. *Journal of International Consumer Marketing*, 21(2), 153–167.
- Loring, L. (2015, March 25). What's 'athleisure'? Find out in Spring Lake. Retrieved from <https://tinyurl.com/y9gsl3ce>.
- Losier, G. F., Bourque, P. E., & Vallerand, R. J. (1993). A motivational model of leisure participation in the elderly. *The Journal of Psychology*, 127(2), 153–170.
- Lysonski, S., & Durvasula, S. (2013). Consumer decision making styles in retailing: Evolution of mindsets and psychological impacts. *Journal of Consumer Marketing*, 30(1), 75–87.
- Mannell, R. C. (1980). Social psychological techniques and strategies for studying leisure experiences. In S. E. Iso-Ahola (Ed.), *Social psychological perspectives on leisure and recreation* (pp. 62–88). Springfield, IL: Charles C. Thomas.
- McCarville, R. E., Shaw, S. M., & Ritchie, M. (2013). Shopping as leisure: A study of avid shoppers. *World Leisure Journal*, 55(2), 167–178.
- McIntyre, N. (1989). The personal meaning of participation: Enduring involvement. *Journal of Leisure Research*, 21(2), 167–179.
- Mehta, S. C., Lalwani, A. K., & Ping, L. (2001). Reference group influence and perceived risk in services among working women in Singapore: A replication and extension. *Journal of International Consumer Marketing*, 14(1), 43–65.
- Menachem, M. (2014). How to be a style icon in workout gear. Retrieved from http://www.huffingtonpost.com/mara-menachem/how-to-be-a-style-icon-in_b_4898418.html
- Moutinho, L., Dionisio, P., & Leal, C. (2007). Surf tribal behaviour: A sports marketing application. *Marketing Intelligence & Planning*, 25(7), 668–690.
- Naylor, M. E., & Havitz, M. (2017). Enduring and situational involvement among hockey enthusiasts. *Leisure/Loisir*, 41(2), 165–183.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- O'Curry, S., & Strahilevitz, M. (2001). Probability and mode of acquisition effects on choices between hedonic and utilitarian options. *Marketing Letters*, 12(1), 37–49.

- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460–469.
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York, NY: McGraw Hill.
- Oliver, R. L. (1999). Whence consumer loyalty? *The Journal of Marketing*, 63(1), 33–44.
- Oliver, R. L. (2010). *Satisfaction: A behavioral perspective on the consumer* (2nd ed.). New York, NY: Sharpe.
- Olsen, S. O. (2002). Comparative evaluation and the relationship between quality, satisfaction, and repurchase loyalty. *Journal of the Academy of Marketing Science*, 30(3), 240–249.
- Peng, C., Bilgihan, A., & Kandampully, J. (2015). How do diners make decisions among casual dining restaurants? An exploratory study of college students. *International Journal of Hospitality & Tourism Administration*, 16(1), 1–15.
- Pfeffer, J., Zorbach, T., & Carley, K. M. (2013). Understanding online firestorms: Negative word-of-mouth dynamics in social media networks. *Journal of Marketing Communications*, 20(1–2), 117–128.
- Pine, B. J., Peppers, D., & Rogers, M. (1995). *Do you want to keep your customers forever?* Boston, MA: Harvard Business Press.
- Pritchard, M. P., Havitz, M. E., & Howard, D. R. (1999). Analyzing the commitment-loyalty link in service contexts. *Journal of the Academy of Marketing Science*, 27(3), 333–348.
- Ragheb, M. G. (1980). Interrelationships among leisure participation leisure satisfaction and leisure attitudes. *Journal of Leisure Research*, 12(2), 138–149.
- Ragheb, M. G., & Tate, R. L. (1993). A behavioral model of leisure participation, based on leisure attitude, motivation and satisfaction. *Leisure Studies*, 12(1), 61–70.
- Reid, I. S., & Crompton, J. L. (1993). A taxonomy of leisure purchase decision paradigms based on level of involvement. *Journal of Leisure Research*, 25(2), 182–202.
- Reuters (2012). *Research and markets: Global retail sporting goods industry analysis 2012–2017: Industry trends, profit, and forecast analysis*. Retrieved from http://www.lucintel.com/press/global_retail_sporting_goods_market_analysis_2012_2017.aspx
- Riddick, C. C. (1986). Leisure satisfaction precursors. *Journal of Leisure Research*, 18(4), 259–265.
- Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of Marketing Research*, 45(3), 261–279.
- Rojek, C. (2006). Leisure and consumption. *Leisure/Loisir*, 30(2), 475–486.
- Sato, M., Yoshida, M., Wakayoshi, K., & Shonk, D. J. (2017). Event satisfaction, leisure involvement and life satisfaction at a walking event: The mediating role of life domain satisfaction. *Leisure Studies*, 36(5), 605–617.

- Scheerder, J., Vos, S., & Taks, M. (2011). Expenditures on sport apparel: Creating consumer profiles through interval regression modeling. *European Sport Management Quarterly*, 11(3), 251–274.
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling* (2nd ed.). New York, NY: Lawrence Erlbaum Associates.
- Sproles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumers decision-making styles. *Journal of Consumer Affairs*, 20(2), 267–279.
- Stebbins, R. A. (2001). The costs and benefits of hedonism: Some consequences of taking casual leisure seriously. *Leisure Studies*, 20(4), 305–309.
- Stebbins, R. A. (2005). Inclination to participate in organized serious leisure: An exploration of the role of costs, rewards, and lifestyle. *Leisure/Loisir*, 29(2), 183–201.
- Stebbins, R. A. (2006). Shopping as leisure, obligation, and community. *Leisure/Loisir*, 30(2), 467–474.
- Tong, X., & Hawley, J. M. (2009). Measuring consumer-based brand equity: Empirical evidence from the sportswear market in China. *Journal of Product and Brand Management*, 18(4), 262–271.
- Tsiotsou, R. (2006). The role of perceived product quality and overall satisfaction on purchase intentions. *International Journal of Consumer Studies*, 30(2), 207–217.
- Veal, A. J. (2017). The serious leisure perspective and the experience of leisure. *Leisure Sciences*, 39(3), 205–223.
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of Marketing Research*, 40(3), 310–320.
- Wertebroch, K., & Dhar, R. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research*, 37(1), 60–71.
- Wheat, K. L., & Dickson, M. A. (1999). Uniforms for collegiate female golfers: Cause for dissatisfaction and role conflict? *Clothing & Textiles Research Journal*, 17(1), 1–10.
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12(3), 341–352.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31–46.
- Zhou, J. X., Arnold, M. J., Pereira, A., & Yu, J. (2010). Chinese consumer decision-making styles: A comparison between the coastal and inland regions. *Journal of Business Research*, 63(1), 45–51.