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Factors affecting sportswear buying behavior: A comparative analysis of luxury sportswear☆

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ABSTRACT

The purpose of this study is to examine the antecedent factors of consumers' purchase intention and willingness to pay for sportswear brands. Also, the study examines the moderating role of not only the luxury status of sportswear brands (i.e., luxury vs. regular brands) but also the types of luxury brands in particular (i.e., brand extension vs. co-branding). The findings indicate greater impacts of symbolic benefits on purchase intention and the willingness to pay for the luxury brands than for the regular brands; the opposite pattern was observed for the hedonic and utilitarian benefits. As to the comparison within the luxury sportswear brands, the impacts of symbolic benefits on the two dependent variables were greater for the luxury sportswear based on brand extension, as compared to the luxury brand based on co-branding; the opposite pattern of relationships was observed for the hedonic and utilitarian benefits. Theoretical and practical implications are discussed, along with future research directions.

1. Introduction

The economic importance of the sport industry in general, and of the sporting goods industry in particular (Andreff & Andreff, 2009) has rapidly grown in recent years. Augmented levels of sport consumption, and increased expenditures on sportswear in particular, have stimulated this growth. Micro level analysis of sport consumption reveals that sportswear is acquired by many types of consumers and for various reasons. For example, people may consider buying sportswear to simply play sports, improve performance, or identify with a team; others may consider sportswear for non-sports purposes, such as for simple expression of a sporty image outside the sports field (Wu & Chalip, 2013).

Luxury goods are one of the fastest-growing industries. Among other reasons, consumers' purchasing power in Western countries has never been so high, while the growing middle class has higher disposable incomes to consume hedonic and status products (Truong, Simmons, McColl, & Kitchen, 2008). Furthermore, consumers are getting more sophisticated in their tastes, more educated, more culturally curious, and they have nurtured a desire for product personalization (Kim & Ko, 2010; Silverstein & Fiske, 2005), placing greater value on status possessions (Eastman, Fredenberger, Campbell, & Calver, 1997). More and more consumers are now therefore willing and able to pay a price premium for higher quality, higher status products such as luxury goods (Savelli, 2011; Truong et al., 2008, p. 191). Among other luxury goods, luxury fashion has a significant market value, estimated to be $240 billion (Tungate, 2012). According to the Bain and Company's report on the global luxury goods market, luxury apparel is the second-largest and the second-fastest-growing category in the luxury goods market, accounting for 28% of total online luxury goods sales in 2014 (D'Arpizio, Levato, Zito, & Montgolfier, 2014).

The sportswear market and the luxury fashion market are intersecting. The entry of sportswear into the luxury fashion market is occurring by co-branding with a well-known designer to introduce a luxury line of the sportswear brand. This intersection the extension of luxury fashion brands into the sportswear market by launching a sports line of their luxury brand. Thus, from two opposite directions, a new market for "luxury sportswear" has emerged in recent years. Despite such increasing attention from the industry, research on luxury sportswear has been limited in academia. This study aims to fill this gap by investigating the factors affecting consumers' buying behavior for sportswear. In addition, this study examines patterns in which those antecedent factors affect consumers' buying behavior across luxury vs. regular sportswear brands, and further compares two luxury sportswear brands, based on co-branding and brand extension strategies.

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2. Literature review

2.1. Two branding strategies in luxury sportswear brands

The market for luxury goods and that for sportswear were once considered two separate markets; however, in recent years, these two markets are converging to generate a new market for luxury sportswear. The luxury sportswear market has grown from two directions: one from the conventional (non-sports) luxury brands, and the other from the traditional sportswear brands.

First, the conventional luxury brands have expanded into the luxury sportswear market by creating "sports lines" of their existing luxury brands. Such a strategy is considered brand extension, because the original luxury brand uses the same brand name in an adjacent product category (Aaker & Keller, 1993). For instance, world-renowned luxury brands, including Prada and Zegna, among several others, have been successful in capturing significant market share in the sportswear market with their sport lines such as "Prada Sport" and "Zegna Sport." For the sports line of the luxury brand market, maintaining consistent design concepts with classic lines, and the application of high technologies (e.g., Tecnico Carta, and CoolMax), have been prevailing marketing strategies to be successful (Fashionbiz, 1999; Jung, 2006). Compared to the classic or original line of the luxury brands, such a sports line of luxury brands targets a more accessible luxury segment of consumers by appealing to a more diverse spectrum of consumer preferences (Zheng, Shen, Chow, & Chiu, 2013).

Second, the conventional sports brands have expanded into the luxury fashion market by creating "luxury lines" of their products. The expansions, typically are through a co-branding process whereby the non-luxury sportswear brands are strategically aligned with a well-known, and highly reputable fashion designer. Such expansions support a premium brand image for entry into the luxury fashion market. Such a strategy has roots in the belief that the integral element of luxury brands is iconic product designers, as brands are intertwined with the personality and lifestyle of their creator (Hines & Bruce, 2007). For instance, the well-known sports brand Adidas has teamed up with a famous fashion designer, Stella McCartney, to launch a luxury line of sportswear, Adidas Stella McCartney. Compared to the original line of sportswear, such a luxury line of sports brands targets a less accessible, but more luxury segment with higher price premium (Hines & Bruce, 2007). The strategy of co-branding with fashion designers of sportswear brands is noteworthy, because the two parts traditionally pursue opposite brand images and different target segments (Wu & Chalip, 2013). Further, the co-branded sportswear goes beyond functional sportswear, and has also embraced town sport look wear and street sportswear (Jung, 2006).

As a result, the traditional luxury brands' sport line and the recent co-branded sportswear brands' luxury product line overlap considerably in terms of their brand image and target market. However, still little is known about how consumers respond to the emerging luxury sportswear market (Reddy, Terblanche, Pitt, & Parent, 2009). Table 1 summarizes characteristics associated with the two branding strategies of the luxury sportswear market.

Table 1
Characteristics of two branding strategies in luxury sportswear brands.

Characteristics	Luxury brands to sports market	Sports brands to luxury market
Brand strategy	Brand extension to a similar category	Co-branding with iconic designers
Added value to the original brand	Adding high technologies	Adding aesthetic design appeal
Target market	Accessible luxury segment	Less accessible niche segment
Pricing	Lower price than a parent brand	Higher price premium
Exclusivity	Reduce exclusivity by appealing to a more diverse spectrum of consumer preference	Increase exclusivity by appealing to a narrow segment
Examples	Prada Sport, Zegna Sport, etc.	Adidas Stella McCartney, etc.

2.2. Tripartite view of the benefits from luxury products

Berthon, Pitt, Parent, and Berthon (2009) derive a tripartite view of luxury product buying behavior. These authors incorporate a symbolic dimension into the two-dimensional conceptualization of the buyers' antecedent factors, comprised of utilitarian and hedonic benefits from the general consumer literature (Batra & Ahtola, 1990; Voss, Spangengerg, & Grohmann, 2003). This approach identifies three factors—utilitarian, hedonic, and symbolic benefits—as the central drivers of consumer buying of luxury products; this view had been confirmed in other recent conceptualizations and empirical findings until recently (Hennings, Wiedmann, Behrens, & Klarmann, 2013; Hennings et al., 2012; Hung et al., 2011).

The utilitarian benefits are derived from functions performed by products; thus, the utilitarian values are reflected in the product quality, the functional values of the products, and the physical attributes the brand possesses (Batra & Ahtola, 1990; Berthon et al., 2009). The hedonic benefits result from the sensations derived from the experience of using products, based on subjective tastes, the ultimate arbiter of luxury (Berthon et al., 2009; Voss et al., 2003). The aesthetic enjoyment and emotional responses illustrate the hedonic dimensions of consumption experiences (Holbrook & Hirschman, 1982; Mimouni-Chaabane & Volle, 2010). The symbolic benefits consist of personal expression, interpersonal approval, and self-esteem within a social context (Berthon et al., 2009; Heine, 2010; Kim, Yoo, Choi, Kim, & Johnson, 2011; Park & Ko, 2011). Luxury goods are traditionally defined as goods such that the mere use or display of a particular branded product brings the owner prestige apart from any functional utility (Grossman and Grossman & Shapiro, 1988); thus, many consumers purchase luxury goods to signal to others their status and prestige (Bird & Smith, 2005), which satisfy their appetites for symbolic meanings (Han, Nunes, & Drèze, 2010).

2.3. Purchase intention and willingness to pay for luxury sportswear

The primary advantages of being a luxury brand are to increase purchase intention and willingness to pay. Not only the symbolic benefits, but also the utilitarian and hedonic benefits of the luxury products contribute to increasing the purchase intention and willingness to pay for the luxury products.

With respect to the purchase intention, based on a large-scale survey of 1380 respondents conducted among luxury brand consumers in Taiwan, Hung et al. (2011) demonstrate that both the functional and the experiential (or hedonic) values of luxury goods are associated with greater purchase intention. Hennings et al. (2013) demonstrate that functional (i.e., quality and performance) and social brand perception (i.e., prestige, status), along with the financial brand perceptions (i.e., rareness, exclusivity), drive the overall luxury brand perceptions, which, in turn, can be associated with higher purchase intention. Similarly, Hennings et al. (2012), among four major categories of values, include social, functional and hedonic values as important components of the overall luxury product value.

Regarding the willingness to pay, consumers tend to pay a high price for luxury products (Song, Hur, & Kim, 2012). This is because luxury brands are characterized by excellent quality, exclusivity, scarcity and uniqueness (i.e., utilitarian), image and status (i.e., symbolic), and aesthetics (i.e., hedonic), which encompass the aforementioned three primary benefits of luxury product consumption (Dubois, Laurent, & Czellar, 2001; Jackson, 2004); such features of luxury goods are generally associated with high price in the minds of consumers, as price tends to signal the prestigious image conveyed by luxury goods (Leigh & Gabel, 1992; Wright, Claiborne, & Sirgy, 1992). From the economist's point of view, Peshkova (2013) noted that "luxury goods have a high income elasticity of demand, which means that with an increase of income the demand for the goods increases more than proportionally;

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in contrast, normal goods are goods for which the demand increases less than proportionally as income rises" (p. 6).

As a logical extension, the three benefits of buying luxury products also apply to the luxury sportswear brands, although the relative magnitude of each benefit's influence may differ from one type of brand to another. In particular, the symbolic benefits may be more important for the luxury sportswear brands than for the regular (non-luxury) sportswear brands, because luxury sportswear brands need to fulfill the luxury appetites of consumers, on top of fulfilling the performance (i.e., enhancing skills) and hedonic (i.e., good feelings of sports activities) criteria expected from sportswear consumers.

In contrast, the hedonic and utilitarian benefits may be more influential in driving purchases of and higher willingness to pay for regular (non-luxury) sportswear brands than for luxury sportswear brands. This is because sportswear is intended to be worn for physical activities, and for practical, comfort or safety reasons, which inherently necessitates utilitarian benefits more than do the luxury brands; also, one of the primary reason for sports consumption is to enjoy the aesthetic values of sports (Frederick & Ryan, 1993; Wang, Min, & Kim, 2013), and to obtain emotional inspirations (Davey, Fitzpatrick, Garland, & Kilgour, 2009), which tend to magnify the impacts of hedonic benefits for sportswear brands.

2.4. Different processing from brand extension and co-branding

As presented above, two different strategies to expand into the luxury segment of the sportswear market exist. Regular (non-luxury) sportswear brands use the strategy of co-branding with well-known designers to emphasize aesthetic design, whereas luxury (non-sports) brands use the family brand name and adopt a brand extension strategy by adding a new product line that emphasizes advanced technologies and functionality of sportswear. We propose that these two different branding strategies (i.e., co-branding and family brand extension) involve different psychological processing for product and brand evaluations.

With respect to the family brand extension strategy, consumers are likely to be involved in category-based processing. Brands are conceptualized as cognitive categories in consumer memory, and brand extension is generally regarded as another instance parallel to a family brand (Boush & Loken, 1991; Czellar, 2003). Consumers often evaluate a brand extension mainly through category-based processing, where consumers' perception of the family brand is used as a guide for evaluations of the extended brand (Sood & Keller, 2012). According to the schematic approach, when a new brand related to, but different from a family of brands is encountered, consumers initially process information based on their present schema and sets of expectations, which are established over time (Susan & Bettman, 1989). The schema, or organized prior knowledge related to a category (Fiske & Neuberg, 1990), encompasses a wide range of product or brand information from attributes, associations, and prototypes to an affective label influencing one's attitude (Goodstein, 1993). When category-based processing is activated, the perceiver's evaluation of the stimulus is heavily dependent on the affect structured in the category schema. Therefore, in the case of a luxury family brand (e.g., Prada) extending into a sportswear market (e.g., Prada Sport), the schema associated with the family brand (e.g., Prada) is likely to guide consumers' overall processing of the new product line (e.g., Prada Sport). In this case, elements important in the luxury brands, such as the symbolic benefits, are likely to be the key determining factors of the evaluations of the extended product.

On the other hand, category-based processing may not be as essential in co-branded sportswear brands' luxury product lines (e.g., Adidas Stella McCartney) as in the traditional luxury brands' sports line (e.g., Prada Sport), mainly because the former has two brands offering independent associations and images. In this case, the interaction between the two brand cues tends to guide how people process the newly introduced brand (Sood & Keller, 2012). According to the "competitive cue interaction effects" in adaptive learning models, when one cue is present with greater salience or has already established associations, the association of the other cue becomes weaker (Cunha, Forehand, & Angle, 2015; Cunha & Laran, 2009; Kruschke, 2001; Pearce & Hall, 1980). In the case of a sports brand co-branded with a fashion designer, the sports brand possesses greater salience and established associations, because sports brands in general, relative to a fashion designer, have much wider appeal and popularity among the general public. Therefore, the original sports brand is likely to guide consumers' processing of the new luxury sportswear brand; elements important in the regular (non-luxury) sportswear brands, such as the hedonic and utilitarian benefits, are likely to be the key determining factors of the consumers' evaluations of a co-branded luxury sportswear product.

3. Hypotheses

The discussion leads us to predict that utilitarian, hedonic and symbolic benefits are the three primary benefits that consumers expect from buying sportswear products, regardless of the luxury status of the brand.

H1. The three benefits—the perceived utilitarian-, hedonic-, and symbolic benefits—will have positive impacts on individuals' purchase intention and willingness to pay for both luxury sportswear brands and regular sportswear brands.

Comparing the luxury sportswear and regular sportswear brands, the perceived utilitarian-, hedonic-, and symbolic benefits will have different patterns of influence.

H2a. The impacts of symbolic benefits will have greater impacts on purchase intention and willingness to pay for luxury sportswear brands than for regular sportswear brands.

H2b. The impacts of hedonic and utilitarian benefits will have greater impacts on purchase intention and willingness to pay for regular sportswear brands than for luxury sportswear brands.

Comparing the luxury sportswear brands, based on co-branding and brand extension, the perceived utilitarian-, hedonic-, and symbolic benefits will have different patterns of influence.

H3a. The impacts of symbolic benefits will have greater impacts on purchase intention and willingness to pay for luxury sportswear brands based on brand extension than on co-branding.

H3b. The impacts of hedonic and utilitarian benefits will have greater impacts on purchase intention and willingness to pay for luxury sportswear brands based on co-branding than on brand extension.

4. Method

4.1. Pretest

A pretest was performed to identify the most salient attributes related to the utilitarian, hedonic, and symbolic benefits of sportswear consumption, as well as identifying both luxury and regular sportswear brands that are familiar to the sample to whom the main survey was administered.

A convenient sample of 45 respondents was recruited on a voluntary basis for participation in the pretest. Each respondent of the pretest was asked to list all the benefits that he or she could think of when consuming sportswear. For each benefit identified, respondents were also asked to indicate whether each listed benefit belongs to the utilitarian, hedonic, or symbolic category. The definitions of each category of benefits were presented on the pretest questionnaire in order to avoid

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any confusion when classifying benefits in one of the three categories. Based on the responses, the four most-frequently mentioned benefits from utilitarian (wearing sensation, practicability, wearability, material), hedonic (design, color, pattern, and feeling), and symbolic (distinctiveness, expressiveness, image, brand meaning) benefits were selected.

In addition to identifying primary benefits from sportswear consumption, respondents were asked to identify as many luxury sportswear brands and regular (non-luxury) sportswear brands as possible. Prada Sport (78%), and Adidas Stella McCartney (70%) were the two most-frequently-mentioned luxury sportswear brands, whereas Adidas (95%) and Nike (95%) were mentioned most frequently for the regular sportswear brands; thus, these four brands were selected.

4.2. Sample and procedure

Four different versions of survey questionnaires were prepared, each prepared for one of the four sportswear brands identified in the pretest (i.e., Prada Sport, Adidas Stella McCartney, Nike, and Adidas). The main survey was administered online through a professional research company. A quota sampling procedure was used to recruit a total of 374 respondents aged from 20s through 40s, living in the metropolitan area, with roughly equal numbers of males and females.

Each respondent was randomly assigned to one of the four versions of the questionnaire. The respondents were first exposed to a stimulus ad featuring sportswear. The ad contained two main components—the main image, and the headline. The headline was the brand name and a logo, and the main image was an article of professionally designed winter sportswear. All images were identical across the four versions of the questionnaire, while the only difference was the brand name and logo on the headline and on the left-hand side of the chest of the sportswear in the main image. Thus, any variation in the product design or the creative quality of the advertisement could not be accounted for as the cause of the variations in the dependent variables.

In order to control for the time spent on viewing the stimulus ad featuring the sportswear, all respondents were forced to view the stimulus ad for at least 15 s, before which the survey Website could not refresh to the next page, where respondents were asked to answer a series of questions measuring the key variables of interest. A sample of the stimuli displaying a sportswear ad appear in Fig. 1.

Fig. 1. A sample of stimulus ad of sportswear.

4.3. Measures

Each respondent was asked to rate items measuring two dependent variables, three independent variables, and nine control variables. All items were measured on five-point scales, unless otherwise specified, with higher scores representing greater or more positive perceptions of each variable. The first dependent variable was purchase intention, and respondents were asked to indicate the degree to which they agreed with the following three items: “It is very likely that I will buy the advertised product,” “I will purchase the advertised product the next time I need sportswear,” and “I will definitely try the advertised product” (Putrevu & Lord, 1994). The second dependent variable, willingness to pay, was measured by asking respondents, in an open-ended question, to specify the maximum amount of money they were willing to pay for the advertised product.

The extent to which each dimension of benefits (i.e., utilitarian, hedonic, and symbolic benefits) was fulfilled is the primary independent variable. Respondents were provided with the four benefit attributes identified from the pretest for each of the three benefit dimensions, respectively, and were asked to indicate in a binary option between “yes” or “no,” whether the advertised product would fulfill each of the four benefit attributes; then, the number of fulfilled benefits (i.e., the benefits marked with “yes”) were tallied to derive a five-point scale measure, ranging from 0 to 4, of each benefit dimension.

Six control variables expected to exert influence on individuals' buying decisions related to sportswear were also measured. First, the descriptive norm, which describes what most people do and what is typical or normal (Cialdini, Reno, & Kallgren, 1990), was measured by three items as follows: “In general, the advertised product is used by many people,” “I know many people who use the advertised product or similar ones,” and “It is very easy to find people who use the advertised product or similar ones.” Second, the financial constraints to purchase sportswear were measured by the following three items: “Sportswear is generally too expensive to me,” “It will be more beneficial to me if I could spend the money on something other than buying sportswear,” and “I'm not sufficiently affluent to purchase sportswear” (Crawford, Jackson, & Godbey, 1991). Third, the measure for prestige sensitivity was taken from Lichtenstein, Ridgway, and Netemeyer (1993). The scale includes nine items, asking subjects to indicate their agreement with statements such as “Buying a high priced brand makes me feel good about myself” and “Even for a relatively inexpensive product, I think that buying a costly brand is impressive.” Fourth, fashion consciousness was measured by asking respondents to indicate their agreement with the following four items: “I usually have one or more outfits of the newest style,” “I keep my wardrobe up-to-date with the changing fashions,” “Fashionable, attractive styling is very important to me,” and “To get variety, I shop different stores and choose different brands” (Shim and Gehrt, 1996). Fifth, prior attitude toward the brand was measured by three-item semantic differential scales with “bad-good,” “unfavorable-favorable,” and “negative-positive” (Stafford, 1996). Finally, prior brand familiarity was measured by three-item semantic differential scales with “unfamiliar-familiar,” “inexperienced-experienced,” “unaware of-aware of” (Kent and Allen, 1994).

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5. Findings

5.1. Sample characteristics and descriptive statistics

Table 2 shows the sample characteristics. A total of 374 respondents are equally distributed across males (48.13%) and females (51.87%). Respondents in their 20s are 33.42%; 30s are 32.35%, and 40s are 34.22% of the total sample. Almost 60% of the respondents have income levels of \$3001 or higher per month, and 79.14% have a college education or more. In terms of the marital status, 43.85% are married.

Table 3 shows the descriptive statistics for the key variables. The internal consistency reliability for multiple-item measures are calculated by Cronach's alpha, which fall within an acceptable range for each variable, from 0.82 to 0.94.

In addition, a series of planned contrasts are performed to explore mean differences across different types of brands. Regarding the purchase intention, the two luxury brands (M = 3.00) do not differ from the two regular brands (M = 3.04), $t(365) = 0.53$ (*n.s*); also, Adidas (M = 3.01) and Adidas Stella McCartney (M = 3.14), $t(365) = 1.07$ (*n.s*) do not differ from each other. However, the purchase intention of Adidas Stella McCartney (M = 3.14) is significantly greater than that of Prada Sport (M = 2.83), $t(365) = 2.48$ ($p < 0.05$).

Also, the amounts of willingness to pay are significantly greater for the two luxury sportswear brands (M = 45.82) than for the two regular sportswear brands (M = 30.39), $t(365) = 3.18$ ($p < 0.01$). In particular, the willingness to pay for Adidas Stella McCartney (M = 39.82) is significantly greater than that for Adidas (M = 32.74), $t(365) = 3.01$ ($p < 0.01$). For the comparison between the two luxury sportswear brands, the amount of willingness to pay for Prada Sport (M = 51.81) is significantly greater than that for Adidas Stella McCartney (M = 39.82), $t(365) = 3.42$ ($p < 0.01$).

5.2. Influences of hedonic, utilitarian, and symbolic benefits (H1)

In order to examine the first hypothesis (H1), a multiple regression analysis is performed to examine the impacts of the perceived hedonic-, utilitarian-, and symbolic benefits on individuals' purchase intention, while controlling for descriptive norm, financial constraints, prior brand attitude and familiarity, prestige sensitivity, fashion consciousness, and demographics. As shown in Table 4, consistent with the predictions of H1, all three categories of benefits—hedonic ($b_{luxury} = 0.080$, $p < 0.05$; $b_{regular} = 0.224$, $p < 0.05$), utilitarian ($b_{luxury} = 0.084$, $p < 0.05$; $b_{regular} = 0.381$, $p < 0.01$), and symbolic ($b_{luxury} = 0.304$, $p < 0.05$; $b_{regular} = 0.125$, $p < 0.05$)—appear to be positive and significant predictors of purchase intention for both regular and luxury sportswear brands.

Similarly, a multiple regression analysis is performed to examine the impacts of the perceived hedonic-, utilitarian-, and symbolic benefits on individuals' willingness to pay, while controlling for the six control variables. For the analyses, respondents' willingness to pay (WTP) was logarithmically transformed (LnWTP) in order to correct its skewed bias from the normal distribution. As shown in Table 5, all three categories of benefits—hedonic ($b_{luxury} = 0.055$, $p < 0.05$; $b_{regular} = 0.254$, $p < 0.05$), utilitarian ($b_{luxury} = 0.007$, $p < 0.05$; $b_{regular} = 0.174$, $p < 0.01$), and symbolic ($b_{luxury} = 0.293$, $p < 0.05$; $b_{regular} = 0.034$, $p < 0.05$)—appear to be positive and significant predictors of willingness to pay for both regular and luxury sportswear brands; these findings support H1.

Table 2
Sample description.

Demographic variables	Luxury brand	Regular brand	Total
	Freq. (%)	Freq. (%)	Freq. (%)
Age			
20s	61 (32.62%)	64 (34.22%)	125 (33.42%)
30s	62 (33.16%)	59 (31.55%)	121 (32.35%)
40s	64 (34.22%)	64 (34.22%)	128 (34.22%)
Income (\$ per month)			
Less than \$1000	9 (4.81%)	3 (1.60%)	12 (3.21%)
\$1001–\$2000	11 (5.88%)	8 (4.28%)	19 (5.08%)
\$2001–\$3000	42 (22.46%)	38 (20.32%)	80 (21.39%)
\$3001–\$4000	32 (17.11%)	33 (17.65%)	65 (17.38%)
\$4001–\$5000	38 (20.32%)	45 (24.06%)	83 (22.19%)
\$5001–\$6000	22 (11.76%)	30 (16.04%)	52 (13.90%)
\$6001–\$7000	13 (6.95%)	10 (5.35%)	23 (6.15%)
Greater than \$7000	20 (10.7%)	20 (10.70%)	40 (10.70%)
Education			
Mid school graduated	1 (0.53%)	0 (0.00%)	1 (0.27%)
High school graduated	40 (21.39%)	37 (19.79%)	77 (20.59%)
College graduated	121 (64.71%)	129 (68.98%)	250 (66.84%)
Master	19 (10.16%)	17 (9.09%)	36 (9.63%)
Ph.D.	6 (3.21%)	4 (2.14%)	10 (2.67%)
Gender			
Male	91 (48.66%)	89 (47.59%)	180 (48.13%)
Female	96 (51.34%)	98 (52.41%)	194 (51.87%)
Marital status			
Married	81 (43.32%)	83 (44.39%)	164 (43.85%)
Single	106 (56.68%)	104 (55.61%)	210 (56.15%)

Note. Freq. = frequency; Gender, Marital Status = 0, 1 dummy coded.

Table 3
Descriptive statistics and reliability of key variables.

Variables	*M*	*SD*	Min.	Max.	Alpha
Purchase intention	3.0	0.84	1	5	0.88
Nike	3.1	0.79	1	5	–
Adidas	3.0	0.88	1	4.67	–
Prada Sport	2.8	0.95	1	4.67	–
Adidas Stella McCartney	3.1	0.75	1	4.67	–
Willingness to pay	35.7	35.30	1	295	–
Nike	28.0	22.92	3	150	–
Adidas	32.7	41.86	4	295	–
Prada Sport	51.8	42.24	1	200	–
Adidas Stella McCartney	39.8	25.21	3	150	–
Ln(willingness to pay)	3.2	0.83	0	5.69	–
Hedonic benefit	0.5	0.50	0	1	0.82
Utilitarian benefit	0.7	0.45	0	1	0.83
Symbolic benefit	0.4	0.49	0	1	0.84
Descriptive norm	3.4	0.73	1	5	0.85
Financial constraints	3.6	0.63	1.67	5	0.86
Prior brand attitude	3.6	0.80	1	5	0.92
Prior brand familiarity	3.7	1.01	1	5	0.94
Prestige sensitivity	2.8	0.73	1	4.89	0.83
Fashion consciousness	3.2	0.71	1	5	0.89

Note. PI = Purchase intention, WTP = Willingness to pay.

5.3. Luxury sportswear vs. regular sportswear brands (H2)

In order to explore the second hypotheses (H2a and H2b), the influences of hedonic, utilitarian, and symbolic benefits on purchase intention and willingness to pay are examined for two split samples—one for the two luxury sportswear brands (i.e., Prada Sport and Adidas Stella McCartney), and the other for the two regular sportswear brands (i.e., Nike and Adidas). After estimating coefficients for luxury and regular sportswear brands, respectively, a series of *z*-tests are performed to examine whether the magnitudes of coefficients vary across the luxury vs. regular brands.

Table 4 shows the patterns of influences of benefits on purchase intention across the two samples, split by whether the sportswear is a luxury or a regular brand. The impact of symbolic benefits on purchase intention is greater for the luxury brands, as compared to the regular brands ($b_{luxury} - b_{regular} = 0.179$, $Z_{symbolic} = 2.59$, $p < 0.05$). However, the impacts of hedonic benefits ($b_{luxury} - b_{regular} = -0.114$, $Z_{hedonic} = -2.37$, $p < 0.05$) and utilitarian benefits ($b_{luxury} - b_{regular} = -0.297$, $Z_{utilitarian} = -5.06$, $p < 0.01$) on purchase intention are greater for the regular brands, as compared to the luxury brands.

Table 4
Influences of utilitarian, hedonic and symbolic benefits on purchase intention by types of sportswear brands.

Predictors		Luxury (M1)	Regular (M2)	Diff[1]	Z	Co-branding (M3)	Extension (M4)	Diff[2]	Z
		b (SE)	b (SE)			b (SE)	b (SE)		
Independent variables	Hedonic benefit	0.080* (0.044)	0.224* (0.042)	−0.144	−2.37*	0.261* (0.060)	0.022* (0.070)	0.239	2.59**
	Utilitarian benefit	0.084* (0.040)	0.381** (0.043)	−0.297	−5.06**	0.192* (0.056)	0.022* (0.063)	0.170	2.02**
	Symbolic benefit	0.304* (0.055)	0.125* (0.042)	0.179	2.59*	0.232* (0.070)	0.492* (0.092)	−0.260	−2.24*
Control variables	Descriptive norm	0.246** (0.059)	0.153 (0.070)	0.093	1.02	0.208** (0.086)	0.265** (0.094)	−0.057	−0.45
	Financial constraints	−0.128 (0.083)	−0.117 (0.073)	−0.011	−0.10	−0.255 (0.121)	−0.040 (0.126)	−0.215	−1.23
	Prior brand attitude	0.192* (0.076)	0.030 (0.084)	0.162	1.43	0.117 (0.116)	0.150 (0.118)	−0.033	−0.20
	Prior brand familiarity	0.157** (0.059)	−0.021 (0.080)	0.178	1.79	0.150 (0.085)	−0.230** (0.096)	0.380	2.96**
	Prestige sensitivity	0.129 (0.071)	0.153 (0.073)	−0.024	−0.24	0.162 (0.089)	0.117 (0.130)	0.045	0.29
	Fashion consciousness	−0.108 (0.071)	−0.040 (0.073)	−0.068	−0.67	−0.152 (0.099)	−0.050 (0.112)	−0.102	−0.68
	Marital status	−0.074 (0.096)	−0.061 (0.095)	−0.013	−0.10	−0.173 (0.131)	−0.006 (0.158)	−0.167	−0.81
	Income	0.051 (0.026)	−0.018 (0.027)	0.069	1.84	0.069 (0.035)	0.023 (0.041)	0.046	0.85
	Education	−0.054 (0.069)	0.050 (0.076)	−0.104	−1.01	0.004 (0.089)	−0.136 (0.117)	0.140	0.95
(Constant)		0.829 (0.528)	1.321 (0.530)	–	–	1.69 (0.806)	0.403 (0.784)	–	–

Note. For M1, $R^2 = 0.57$, adjusted $R^2 = 0.54$, $F(12, 169) = 18.77$, $N = 182$; for M2, $R^2 = 0.53$, adjusted $R^2 = 0.49$, $F(12, 174) = 13.03$, $N = 187$; for M3, $R^2 = 0.55$, adjusted $R^2 = 0.48$, $F(12, 79) = 7.92$, $N = 92$; for M4, $R^2 = 0.60$, adjusted $R^2 = 0.54$, $F(12, 77) = 9.81$, $N = 90$; diff[1] = difference between coefficients for luxury and regular sportswear; diff[2] = difference between coefficients for co-branding of general sportswear in luxury sportswear and luxury brand product line extension.

* $p < 0.05$.

** $p < 0.01$.

Similar analyses are performed for the logarithmically transformed willingness to pay (LnWTP). As shown in Table 5, the impacts of symbolic benefits on LnWTP are greater for the luxury brands, as compared to the regular brands ($b_{luxury} - b_{regular} = 0.260$, $Z_{symbolic} = 2.39$, $p < 0.05$), whereas the impacts of hedonic benefits ($b_{luxury} - b_{regular} = -0.199$, $Z_{hedonic} = -2.64$, $p < 0.01$) and utilitarian benefits ($b_{luxury} - b_{regular} = -0.167$, $Z_{utilitarian} = -2.29$, $p < 0.05$) on the LnWTP are greater for the regular brands, as compared to the luxury brands. Thus, H2a and H2b are supported.

5.4. Co-branded vs. brand extended luxury sportswear brands (H3)

In order to test the third hypotheses (H3a and H3b), the influences of hedonic, utilitarian, and symbolic benefits on purchase intention and willingness to pay are examined for two split samples—one for the luxury sportswear brand based on co-branding (i.e., Adidas Stella McCartney) and the other for the luxury brand extension (i.e., Prada Sport).

After estimating coefficients for the luxury sportswear brand based on co-branding and the luxury brand extension, respectively, a series of z-tests are performed to examine whether the magnitudes of coefficients vary across the two brands. Table 4 shows that the impact of symbolic benefits on purchase intention is greater for the luxury sportswear based on brand extension, as compared to co-branding ($b_{co\text{-}branding} - b_{extension} = -0.026$, $Z_{symbolic} = -2.24$, $p < 0.05$). In contrast, the impacts of hedonic ($b_{co\text{-}branding} - b_{extension} = 0.239$, $Z_{hedonic} = 2.59$, $p < 0.01$) and utilitarian benefits ($b_{co\text{-}branding} - b_{extension} = 0.170$, $Z_{utilitarian} = 2.02$, $p < 0.05$) on purchase intention are greater for the luxury sportswear brand based on co-branding than for the brand extension.

For the logarithmically transformed willingness to pay (LnWTP), Table 5 shows that the impact of symbolic benefits is greater for the luxury brand extension, as compared to the co-branded luxury sportswear brand ($b_{co\text{-}branding} - b_{extension} = -0.32$, $Z_{symbolic} = -2.24$, $p < 0.05$). On the other hand, the impacts of hedonic ($b_{co\text{-}branding} - b_{extension} = 0.24$, $Z_{hedonic} = 2.16$, $p < 0.05$) and utilitarian benefits ($b_{co\text{-}branding} - b_{extension} = 0.20$, $Z_{utilitarian} = 1.97$, $p < 0.05$) are greater for the luxury sportswear

Table 5
Influences of utilitarian, hedonic and symbolic benefits on Ln(willingness to pay) by types of sportswear brands.

Predictors		Luxury (M1)	Regular (M2)	Diff[1]	Z	Co-branding (M3)	Extension (M4)	Diff[2]	Z
		b (SE)	b (SE)			b (SE)	b (SE)		
Independent variables	Hedonic benefit	0.055* (0.058)	0.254* (0.048)	−0.199	−2.64**	0.247 (0.088)*	0.003* (0.071)	0.244	2.16*
	Utilitarian benefit	0.007* (0.053)	0.174** (0.050)	−0.167	−2.29*	0.210* (0.066)	0.006* (0.080)	0.204	1.97*
	Symbolic benefit	0.293* (0.073)	0.034* (0.080)	0.260	2.39*	0.170* (0.082)	0.490* (0.117)	−0.320	−2.24*
Control variables	Descriptive norm	−0.019 (0.079)	0.034 (0.080)	0.053	−0.47	0.226* (0.100)	−0.027 (0.120)	0.253	1.62
	Financial constraints	0.081 (0.111)	−0.107 (0.083)	0.188	1.36	−0.111 (0.142)	0.185 (0.160)	−0.296	−1.38
	Prior brand attitude	−0.069 (0.101)	0.093 (0.096)	0.162	−1.16	−0.153 (0.137)	−0.093 (0.149)	−0.060	−0.30
	Prior brand familiarity	0.179 (0.078)	−0.178 (0.091)	0.357	2.98**	0.210* (0.099)	0.278 (0.123)	−0.068	−0.43
	Prestige sensitivity	0.293 (0.095)	0.181* (0.083)	0.112	0.89	0.256* (0.104)	0.388 (0.166)	−0.132	−0.67
	Fashion consciousness	0.009 (0.095)	0.025 (0.083)	0.016	−0.13	−0.296* (0.116)	0.197 (0.143)	−0.493	−2.68**
	Marital status	0.159 (0.128)	0.078 (0.108)	0.081	0.48	0.195 (0.154)	0.144 (0.201)	0.051	0.20
	Income	0.107 (0.035)	−0.023 (0.031)	0.130*	2.78**	0.110* (0.041)	0.131 (0.052)	−0.021	−0.32
	Education	0.020 (0.092)	0.087 (0.087)	−0.067	−0.53	−0.014 (0.103)	0.071 (0.149)	−0.085	−0.47
(Constant)		0.804 (0.705)	2.145 (0.605)	–	–	1.63 (0.947)	0.535 (0.999)	–	–

Note. Ln(willingness to pay) = the logarithmically transformed individuals' willingness to pay; for M1, $R^2 = 0.27$, adjusted $R^2 = 0.22$, $F(12, 169) = 5.15$, $N = 182$; for M2, $R^2 = 0.22$, adjusted $R^2 = 0.17$, $F(12, 174) = 4.11$, $N = 187$; for M3, $R^2 = 0.33$, adjusted $R^2 = 0.23$, $F(12, 79) = 3.27$, $N = 92$; for M4, $R^2 = 0.40$, adjusted $R^2 = 0.31$, $F(12, 77) = 4.31$, $N = 90$; diff[1] = difference between coefficients for luxury and regular sportswear; diff[2] = difference between coefficients for co-branding of general sportswear in luxury sportswear and luxury brand product line extension.

* $p < 0.05$.

** $p < 0.01$.

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brand based on co-branding, as compared to the luxury brand extension. These findings support H3a and H3b.

6. Discussion

This study examines the factors affecting consumers' buying behavior for sportswear, focusing on the three primary benefits of consuming sportswear—utilitarian, hedonic, and symbolic benefits. In addition, comparative analyses are performed across the luxury sportswear brands and regular sportswear brands to explore the potential moderating effects of different types of brands.

The overall findings indicate that, for both dependent variables—purchase intention and willingness to pay—all three categories of benefits (i.e., utilitarian, hedonic, and symbolic benefits) have positive and significant impacts. When the luxury sportswear brands are compared to the regular (non-luxury) sportswear brands, the magnitude of the impacts of symbolic benefits on purchase intention is greater for the luxury brands than for the regular brands, whereas the opposite pattern is observed for the utilitarian benefits and hedonic benefits.

In addition, when the sportswear brands were compared within the luxury product domain (i.e., luxury sportswear brands based on brand extension vs. co-branding), the results show that the influences of symbolic benefits are greater for sportswear brand based on brand extension than for the co-branding, whereas the influences of hedonic and utilitarian benefits are greater for the sportswear brand based on co-branding than for the brand extension. These patterns are found for both purchase intention and willingness to pay.

Theoretically, this study is one of the first attempts to investigate luxury sportswear consumption based on a tripartite view of benefits. Despite the recent expansion of the luxury sportswear market, research on consumers' buying behavior related to the newly emerging luxury sportswear market has been limited. Further, while research on brand extension and co-branding has accumulated many evidences in the general marketing literature, their application to the luxury brand research has been limited. This study fills this gap by exploring how utilitarian, hedonic, and symbolic benefits affect consumers' purchase intention, and willingness to pay. The findings of this study also serve as the starting point for further investigation of the emerging luxury sportswear market.

Practically, the findings of this study help marketers prepare and implement marketing communications strategies in the luxury sportswear market. The findings indicate that different attributes should be emphasized in marketing communications campaigns, depending on whether the brand is luxury or not. The overall findings suggest that symbolic benefits should be emphasized over hedonic and utilitarian benefits when promoting luxury sportswear brands, whereas hedonic and utilitarian benefits are more appropriate in the campaigns for regular sportswear brands.

This study also adds to the body of literature on luxury brands by comparing two different strategies to enter into the luxury sportswear market: luxury sportswear brands based on brand extension vs. co-branding. From a managerial standpoint, findings of the current study suggest a luxury brand should focus on preserving the core values of luxury brands in order to succeed in the newly emerging luxury sportswear market. For instance, luxury brand managers, whose main objective with a sport line is to extend target consumers with less price premium, should still emphasize communicating conspicuous values such as luxurious image, uniqueness, and self-expression. In contrast, brand strengths in co-branded sportswear brands come from the combination of traditional sports brands and iconic fashion designers. Thus, creating a new brand-customer relationship by developing both functional (e.g., new technology) and hedonic (e.g., new design) values should be an important success factor in co-branded sportswear.

This study bears several limitations that lead to directions for future research. First, only four sportswear brands are tested in this study. Although pretests were performed to identify the target brands to be examined in this study, the findings should not be generalized over the four brands directly examined in this study. Future research should replicate the findings of this study using a more diverse set of brands. Secondly, this study uses a survey method using real brands to examine how consumers consume sportswear. For this reason, although preexisting attitudes and prior familiarity toward the brand are used as control variables in the analysis, the causal relationship between the independent and dependent variables cannot be guaranteed. Future research may replicate the findings of this study in a controlled experiment with no brand name version of the stimulus to enhance the internal validity. Finally, although respondents' general liking of sports or motivations for purchasing sportswear may have influenced the dependent variables, no measures in this study are available to control for such effects in the analyses. Future research should take into account how general preferences for sports and motivations would affect consumers' responses to luxury sportswear brands.

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