

# Effects of Social Media on Generation Y Consumers' Brand Knowledge of Eco-friendly Outdoor Sportswear

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## Abstract

The aim of this study was to investigate how Generation Y consumers' social capital on social network sites (SNSs) influences brand awareness and attitude towards purchase intentions for eco-friendly outdoor sportswear (EFOS). The result showed that social capital on SNSs has a positive effect on psychological perception of EFOS. Also, the perception of EFOS had not only a positive effect on attitude towards EFOS, but also directly affected purchase intention for EFOS. The outcomes of this study could offer sportswear marketers to understand Generation Y's cognitive and behavioral involvement and to develop effective marketing strategies to promote EFOS. Therefore, Generation Y consumers' purchase intentions can be fully stimulated.

Key words: Generation Y, eco-friendly outdoor sportswear, awareness, attitude

## Introduction

In the past decade, consumers, companies, and academia have become concerned about environmental issues, prompted by considerations of health and well-being in addition to enhanced environmental awareness and interest in sustainable practices. The Outdoor Foundation (2014) estimates that approximately 49.2% of the U.S. population engages in various outdoor recreational activities such as cycling, rock climbing, sailing, skiing, and golfing. With respect to business, an increased environmental awareness in modern society, along with a growing consumer demand for green products, has led sportswear companies and manufacturers to try to integrate sustainability practices in their apparel product lines (Srinivas, 2015). According to

the Sustainable Apparel Coalition (SAC, 2016), major sportswear apparel companies including Nike, New Balance, Puma, Patagonia, and Under Armour have joined the SAC to reduce environmental impact and enhance their sustainability practices for the benefit of people and the planet.

However, this movement toward sustainability seems to have been largely ignored by Generation Y, that is, individuals born between the 1980s and 2000s, also known as "millennials". Generation Y seems to be interested primarily in brands favored by fashion trends and social media (Bolton et al., 2013; Kibbe, 2014). This generation is also the first digital generation, that is, the first generation to live in a digital environment and share various types of information on social media platforms (Bennett, Maton, & Kervin, 2008; Wesner & Miller, 2008). The Boston Consulting Group reported that in the U.S., Generation Y spends approximately \$1.3 trillion/year, and

social, digital, mobile technologies affect 48% of this generation's decisions to purchase certain brands (Mahoney, 2014). Due to free access to useful resources and technological tools, consumers can easily make purchase decisions using online shopping websites (e.g., Amazon, eBay, Urban Originals) and network services (e.g., blogs, Facebook, Instagram, Snapchat, Pinterest). Srinivas (2015) stated that consumers could be educated through social network sites (SNSs) to have greater environmental awareness and concerns. This could potentially increase their intentions to purchase eco-friendly products (e.g., organic food, 100% natural cotton clothing, personal care products, electric cars) (Srinivas, 2015). These eco-friendly products, also known as "green" products, are defined as products that contribute to sustainable living or are manufactured using practices that conserve energy, reduce pollution, and/or are less harmful to human health and the environment compared with conventional practices (Chouhan, Kumar, Sharma, & Ameta, 2013).

As stated above, sportswear companies are attempting to promote eco-friendly sportswear (EFS) within fashion trends and to build their brand awareness among consumers. However, previous researchers have identified several problems that prevent Generation Y consumers from accepting eco-friendly products and apparel, including a lack of information, premium pricing, and even negative perceptions of eco-friendly products (Gleim, Smith, Andrews, & Cronin, 2013; Kibbe, 2014; Moon, Youn, Chang, & Yeung, 2013). In addition, there are currently no published studies exploring the relationships among SNSs, brand awareness, and purchase intentions for EFS.

In this study, the term eco-friendly outdoor sportswear (EFOS), also referred to as green/sustainable outdoor activewear, is used to mean an outdoor sportswear product line that utilizes recycled or natural materials, minimizes water and energy use, and otherwise causes less damage to the environment than conventional sportswear manufacturing processes. The aim of this study was to investigate how Generation Y consumers' social capital on SNSs influences brand awareness and attitude towards purchase intentions for EFOS.

## Social Capital on SNSs

Social capital is defined as "investment in social relations by individuals through which they gain access to embedded resources to enhance expected returns of instrumental or expressive action" (Lin, 1999, p. 39). Social capital provides resources that benefit social relationships, which influence the consumer's behavior or social community and thereby affect economic growth (Coleman, 1988; Pennar, 1997).

Previous studies indicated that the utility of SNSs improved users' perceptions of both their bonding and bridging social capital, and gradually enhanced bridging social capital (Steinfeld, DiMicco, Ellison, & Lampe, 2009). Bonding social capital refers to the mechanisms that support strong ties between individuals and their close friends, including expressions of emotional support, confidence, and trust through SNSs, as well as information sharing (Chi, 2011). On the other hand, bridging social capital refers to weak ties and/or causal connections between individuals and distant acquaintances (e.g., friends of friends) who share and diffuse information, ideas, and experiences on SNSs (Chi, 2011). Therefore, social capital on SNSs can not only lead to various benefits, such as the exchange of useful information and changes in consumer behavior, but can also enhance contact with other people and with branding communities (Kavanaugh, Reese, Carroll, & Rosson, 2005).

Information exchanges through SNSs can have a huge impact on consumers' behavior and thinking because they receive this information from people whom they perceive as attractive and/or credible. In terms of information concerning certain brands, bonding social capital carries much more influence on consumers' perceptions and opinions of brand awareness and validation of their attitudes, compared with bridging social capital (Adler & Kwon, 2002; Morrow, 2001). Before the rise of SNSs, customers were passive receivers of brand messages, and companies had control over the brand development process (Hennig-Thurau et al., 2010; Libai et al., 2010). Today, however, customers increasingly integrate and act as

co-creators and multipliers of brand messages, which enables enormous viral effects and creates opportunities for word-of-mouth marketing (Kozinets, De Valck, Wojnicki, & Wilner, 2010; Libai et al., 2010). Therefore, both customers and companies actively participate in a “conversation” about the brand (Deighton & Kornfeld, 2009; Hennig-Thurau et al., 2010). If apparel brands successfully motivate and impress consumers, consumers then keep posting information and sharing their thoughts and opinions on these brands on SNSs. Based on this review of the previous literature, the following hypotheses regarding SNSs and positive impact were proposed for this study:

Hypothesis 1: Social capital on SNSs has a positive influence on brand awareness of EFOS.

Hypothesis 2: Social capital on SNSs has a positive influence on consumer attitudes towards EFOS.

## Brand Awareness

Brand awareness, or the potential availability of a brand in the mind of the consumer, is critical in shaping consumer attitudes towards brands (Keller, 1993, 2003). Sufficient brand knowledge can help consumers make final decisions among various options. Previous studies have indicated that brand awareness can positively influence consumers’ brand attitudes (Keller, 1993, 2003). High brand awareness is not only identified as trust in product quality, but also assists consumers in considering products and services of that brand (Kwun & Oh, 2007; Yoo, Donthu, & Lee, 2000). High brand awareness also motivates consumers to purchase and, thus, increases that brand’s chances of being purchased (Hoyer & Brown, 1990). Keller (2003) reported significant relationships among brand awareness and brand attitudes towards purchase behavior.

In addition, the influence of social media activities and consumers’ social media involvement with Facebook appeared to have positive effects on brand awareness and purchase intentions (Hutter, Hautz, Dennhardt, & Fuller,

2013). Thus, brand awareness is considered to be a precondition for brands to be considered within the reviews of purchase options, which supports the notion that brand awareness plays a critical role in brand knowledge (Keller, 2003). Based on this review of the previous literature, the following hypotheses were proposed for this study:

Hypothesis 3: Brand awareness of EFOS has a positive influence on attitudes towards EFOS.

Hypothesis 4: Brand awareness of EFOS has a positive influence on purchase intentions for EFOS.

## Attitude and Purchase Intention

Attitude is considered to be a valuable indicator of behavioral intentions (Wang, 2009). Because the behavioral intention to purchase is a psychological factor including beliefs and feelings, it has been identified as an intervening variable between consumer attitudes and consumer behavior (Miniard, Obermiller, & Page, 1983). Furthermore, attitudes towards green energy brands have had a positive effect on purchase intentions; that is, they are associated with increased purchase intention (Eagly & Chaiken, 1993; Hartmann & Apaolaza-Ibáñez, 2012). The final psychological stage in the decision-making process is indicated by purchase intention, when the consumer indicates an actual willingness to buy an object or brand (Wells, Valacich, & Hess, 2011). Thus, purchase intention is a combination of consumers’ interest in and possibility of buying a product. As reported in several studies, purchase intention is strongly related to attitudes about and preferences for a brand or product (Kim, Kim, & Johnson, 2010; Kim & Ko, 2010; Ko & Lee, 2009; Lloyd & Luk, 2010).

Sparks, Shepherd, and Frewer (1995) investigated green consumption and reported a positive relationship between brand attitude and purchase intention for organic food. Trust and confidence in buying organic vegetables was also significantly influenced by favorable consumer attitudes towards green consumerism (Sparks et al., 1995). Moreover, Kozar and Hiller (2013) reported a positive relationship between consumers’ attitudes and their

intentions to purchase from socially responsible businesses. A strong positive relationship was also identified between attitudes towards eco-friendly apparel and purchase intentions (Cowan & Kinley, 2014; Zheng & Chi, 2015). Therefore, in this study, it was hypothesized that brand attitude has a strong and positive effect on purchase intentions for EFOS. Based on this review of the previous literature, the following hypothesis was proposed for this study:

Hypothesis 5: Attitude towards EFOS has a positive influence on purchase intentions for EFOS.

## Methods

### Participants

A total of 350 participants attending universities located in Seoul, Korea were recruited by visiting both undergraduate and graduate classes. Participants responded to the face-to-face, self-administered questionnaire, which included definitions of green sportswear as well as eco-friendly outdoor sportswear made by well-known brands (i.e., Nike, Under Armour, The North Face, Patagonia).

Of the 350 survey responses, 41 were eliminated due to the following reasons: (a) missing values; (b) lack of variability in responses (e.g., all sections of items were marked as the same number); (c) lack of completion of the questionnaire; and (d) lack of representativeness of the target population (i.e., not born between 1981 and 1999). The sample size for the study was determined based on recommended item-to-response ratios of 1:5 (Hair, Black, Babin, & Anderson, 2010) and required at least 200 participant respondents (Weston & Gore, 2006). With the use of a cross-sectional and survey-based research design, a convenience sample of 309 respondents was deemed usable for an effective response rate of 88.3%. Among the 309 respondents, 68.3% were male ( $n=211$ ) and 31.7% ( $n=98$ ) were female. The average age of the respondents was 23 years ( $M=23.29$ ,  $SD=2.86$ ), with participants

ranging in age from 19 to 35 years. Forty-four percent of the respondents indicated that they used SNSs from one to three hours a day (see Table 1).

**Table 1.** *Participants Characteristics*

Demographics	
Gender	Male: 211 (68.3%), Female: 98 (31.7%)
Age	Average: 23 years old
Daily use of social network sites	1~3 hours (44%)

### Survey Instruments

The survey consisted of questions related to five overall topics: (1) social capital on social networking sites; (2) brand awareness; (3) brand attitude; (4) purchase intentions; and (5) participant demographic information. The first section of the survey measured social capital on social networking sites (SNSs), with five items from the Interpersonal Support Evaluation List (ISEL) social support measure (Cohen & Hoberman, 1983). The five items were modified to measure social capital on SNSs closely related to our research after eliminating redundant items and refining wordings for clarity of meaning. The second section of the survey examined brand awareness with four items adapted from Bruhn, Schoenmueller, and Schäfer (2012). Third, measurement items were modified from three items eliciting participants' brand attitude (Bruhn et al., 2012). Fourth, purchase intention was measured with four items modified from Bruhn et al. (2012). All items were measured on a seven-point Likert-type scale anchored by values ranging from 1 (strongly disagree) to 7 (strongly agree). The final section of the survey elicited participants' demographic information such as gender, age, and daily use of social network sites.

### Data Analyses

Structural equation modeling was conducted on the basis of Anderson and Gerbing's (1988) two-step approach using Mplus 6.0 software (Muthén & Muthén, 2010). This

analysis required separate testing of the measurement and structural components of the models. In the first step, confirmatory factor analysis (CFA) was used in evaluating the measurement components of the model. The next step involved an estimation of the structural model and encompassed an investigation of the hypothesized interrelationships among latent constructs. Model fit was assessed using four goodness-of-fit statistics: (a) the chi-square statistic (a nonsignificant  $\chi^2$  is indicative of a hypothesized model that fits the data well); (b) Comparative Fit Index (CFI: greater than .90 demonstrates acceptable fit) (Hair et al., 2010); (c) Standardized Root Mean Square Residual (SRMR: equal to or less than .08 is acceptable fit) (Tabachnick & Fidell, 2007); and (d) Root Mean Square Error of Approximation (RMSEA: equal to or less than .05 corresponds to a good fit) (Browne & Cudeck, 1993). Robust Maximum Likelihood was utilized in combination with the Satorra-Bentler scaling correction method (S-B  $\chi^2$ ; Satorra & Bentler, 1994) in order to account for non-normality in the distribution of observed variables.

## Results

### Measurement Model

CFA was conducted to examine the factor structure of observed variables measuring hypothesized latent constructs. The measurement model fit the data well (S-B  $\chi^2=156.09$ ,  $df=98$ ,  $p<.05$ , CFI=.983, RMSEA(90% CI)=.044, SRMR=.036). In this present study, the recommended guideline of the standardized factor loadings greater than .50 was considered to be acceptable reliability of individual item if factor loadings of remaining observed variables together supported additional evidence of internal consistency of their focal constructs (e.g., average variance extracted (AVE) score; Hair et al., 2010). All factor loadings demonstrated acceptable values ranging from .610 to .952 (Hair et al., 2010). In terms of construct reliability, composite reliability (CR) and Cronbach's alpha, and the AVE scores were estimated to assess the internal

consistency of each construct (e.g., Anderson & Gerbing, 1988; Bagozzi & Yi, 1998; Fornell & Larcker, 1981). CR values for all constructs ranging from .893 to .942 were greater than the recommended criterion of .60 (Bagozzi & Yi, 1998). Cronbach's alpha values for each construct ranging from .887 to .941 exceeded the recommended guideline of .70 (Hair et al., 2010). AVE scores for all constructs ranging from .629 to .804 exceeded the recommended criterion of .50 (Fornell & Larcker, 1981). Table 2 displays the factor loadings, CR, Cronbach's alpha coefficients, and AVE. Regarding evidence of discriminant validity, the AVEs of a focal construct were greater than the squared correlations between the focal construct and any other respective constructs indicating evidence of discriminant validity (Fornell & Larcker, 1981). Thus, the evidence of internal consistency of each construct and discriminant validity provided support for overall factor structure of the measurement scales. Table 3 presents correlations among the latent constructs.

### Hypothesis Testing

After assessing the validity of the measurement model, a structural equation model analysis was conducted to examine the hypothesized interrelationships among the constructs. The structural model fit was acceptable (S-B  $\chi^2=156.09$ ,  $df=98$ ,  $p<.05$ , CFI=.983, RMSEA(90% CI)=.043, SRMR=.037). As illustrated in Figure 1, the direct path from social capital on SNSs to awareness of eco-friendly outdoor sportswear (EFOS) brand was positive and significant (standardized  $\beta = .213$ , S.E. = .060), whereas the direct path from social capital on SNSs to attitudes towards EFOS brand was not significant (standardized  $\beta = .071$ , S.E. = .064). The direct path from brand awareness to attitude was positive and significant (standardized  $\beta = .145$ , S.E. = .058). The direct path coefficients from brand awareness to purchase intention (standardized  $\beta = .209$ , S.E. = .039) and attitudes to purchase intentions for EFOS (standardized  $\beta = .689$ , S.E. = .035) were both positive and statistically significant.

**Table 2.** Assessment of the Measurement Model

Factors & Items		$\lambda$	Composite Reliability	Cronbach's $\alpha$	AVE
Social Captial on SNSs (5 items)			.893	.887	.629
SCS1	There are several people on SNSs I trust to help solve my problems.	.821			
SCS2	There are SNSs that I feel comfortable talking to about intimate personal problems	.755			
SCS3	When I feel lonely, there are several people on SNSs I can talk to.	.876			
SCS4	If I needed an emergency loan of \$500, I know someone on SNSs I can turn to.	.873			
SCS5	The people I interact with on SNSs would put their reputation on the line for me.	.610			
Brand Awareness (4 items)			.926	.923	.760
BAW1	I am aware of the EFOS brand.	.806			
BAW2	I easily recognize the EFOS brand.	.925			
BAW3	Several characteristics of the EFOS brand instantly come to my mind.	.939			
BAW4	I easily memorize the symbol/logo of the EFOS brand.	.808			
Attitude (3 items)			.903	.899	.757
ATT1	I have a pleasant idea of the EFOS brand.	.865			
ATT2	The EFOS brand has a good reputation.	.952			
ATT3	I associate positive characteristics with the EFOS brand.	.785			
Purchasing Intention (4 items)			.942	.941	.804
PI1	It is possible that I will buy the EFOS brand in the future.	.925			
PI2	I will seriously consider purchasing the EFOS brand.	.930			
PI3	It is highly likely that I will buy the EFOS brand.	.902			
PI4	I will recommend the EFOS brand to friends or relatives	.826			

Note. Social network sites (SNSs); eco-friendly outdoor sportswear (EFOS).

**Table 3.** Correlation Matrix for The Latent Variables

Construct	Social Captial on SNSs	Brand Awareness	Attitude	Purchasing Intention
Social Captial on SNSs	1.00			
Brand Awareness	.213**	1.00		
Attitude	.118*	.169**	1.00	
Purchasing Intention	.126*	.299**	.678**	1.00

Note. \* $p < .05$ . \*\* $p < .01$ .

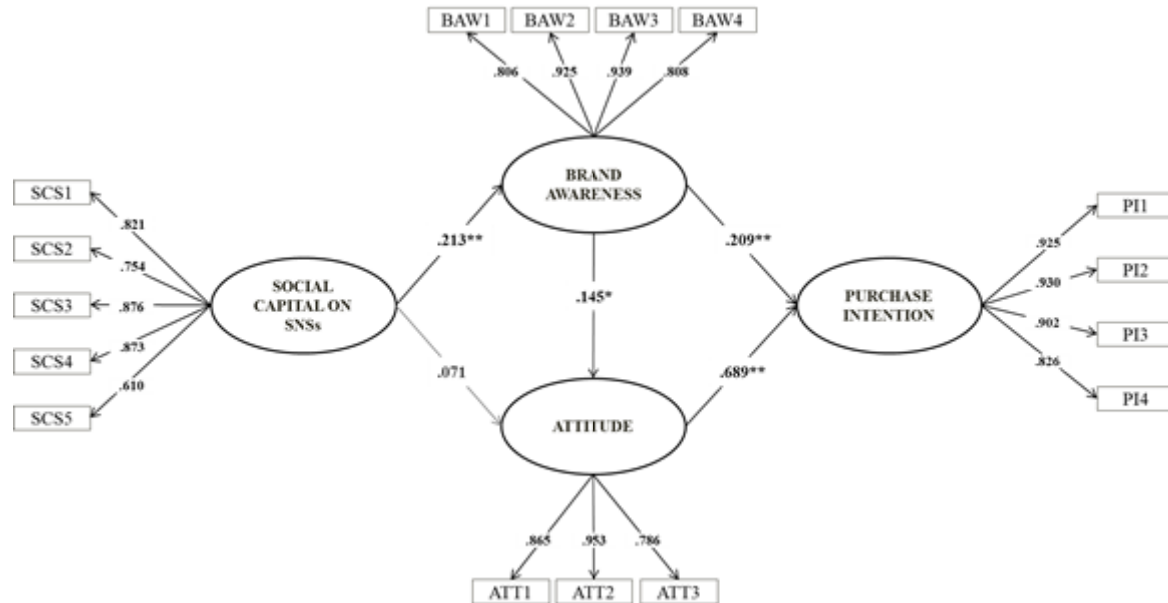


Figure 1. Assessment of the structural model

\* $p < .05$ . \*\* $p < .01$

## Discussion

This study investigated the effects of social capital on social network sites' (SNSs) on brand awareness of eco-friendly outdoor sportswear (EFOS) and attitudes toward consumers' purchase intentions for EFOS. Our study results illustrate that social capital on SNSs enhances brand awareness of EFOS. This is consistent with previous results showing that bonding social capital greatly influences consumers' perceptions of brand awareness (Adler & Kwon, 2002; Morrow, 2001). Brand awareness might fully mediate the relationship between social capital on SNSs and attitude in that the correlations from the measurement model were significant. Therefore, brand awareness could play a mediator role between social capital on SNSs and purchase intention. Our findings were similar to the previous results demonstrating that high brand awareness would stimulate consumers' intent to purchase products and increase the probability of purchasing the brand name products (Hoyer & Brown, 1990). What is more, the brand awareness variable is a necessary factor among social capital, attitudes about

EFOS, and purchase intentions for eco-friendly outdoor sportswear in the proposed conceptual model. Thus, sportswear retailers or companies should put forth efforts to develop marketing strategies (e.g., trial experience and campaign) to enhance their brand awareness rather than relying exclusively on SNSs.

The results further showed that social capital on SNSs significantly predicted both attitude and purchase intention. Increasing social capital on SNSs (e.g., having more active interactions with Generation Y consumers, providing information on the importance of eco-friendly sportswear and products) creates a higher probability of increasing brand awareness and, in turn, influences attitude and ultimately purchase intention. Furthermore, social capital on SNSs can not only provide useful information regarding eco-friendly outdoor sportswear, but also educate consumers by supplying knowledge about eco-friendly products and sustainable practices in a variety of online platforms and communities. If Generation Y consumers, for example, are interested in purchasing EFOS, it may be easy for young consumers to obtain information on and resources for EFOS in an online setting. Also, the college

and graduate students affiliated with Generation Y who completed the questionnaire in this study could have a deeper understanding of brand awareness. They could have more positive attitudes of EFOS through interactions with a brand's information and images for EFOS as well as the survey conducted in this study. Attitude might partially mediate the relationship between brand awareness and purchase intention. Eagly and Chaiken (1993) found that purchase intention is significantly influenced by brand attitudes. However, attitude toward different types of sustainable products (e.g., organic food and sustainable personal care), which are closely associated with health and safety, brings about different results.

The findings of this study offer insights for practical implications considering both social capital on SNSs and brand awareness of EFOS. Generation Y consumers and e-consumers obtain information about EFOS, including sustainable practices, which leads to consistently increasing their awareness about EFOS and its consumption. Social capital on SNS activities indeed influences the purchase decision-making process. Therefore, these analyses indicated considerable relationships among brand awareness about EFOS, brand attitudes toward EFOS, and purchase behaviors.

Effective branding strategies in social media are promoted by sportswear retailers or marketers to grow consumers' brand awareness and then change Generation Y consumers' attitudes and purchase intentions related to EFOS. Also, sportswear retailers or marketers should deeply understand Generation Y consumers' purchase behaviors and develop effective marketing strategies to promote EFOS in order to stimulate these consumers' purchase intentions fully.

Furthermore, it is recommended that future studies investigate a similar study about EFOS with sample populations from different regions, genders, age groups, or countries (e.g., U.S., China) to acquire more rational and practical data. The face-to-face self-administered questionnaire used in this study provided a convenient sample from only a few major universities located in Seoul, Korea, meaning our sampling was limited. Future

research should examine our conceptual model with other green product categories and consider including additional variables (e.g., brand image and satisfaction) related primarily to consumers' perceptions and expectations to identify the most useful and rational model.

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