

## **Exploring the Impact of Emotions Induced by the Olympic Games on the Consumption Values, Attitudes and Purchase Intention Toward the Olympic Sponsor**

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The purpose of this study is to examine how emotional arousal and pleasure experienced during Olympic competitions affect the consumption values, attitudes, and purchase intentions toward sponsoring brands. To fulfill this purpose, an experimental study was conducted with 30 participants and the research design consisted of 2 (Pleasure: Win/Loss) x 2 (Arousal: High/Low) between subjects. Data analyses included Reliability Tests, Independent Samples t-test, and two-way Analysis of Variance (ANOVA) using SPSS 25.0 statistical packages. The findings suggest the pleasure induced by the Olympics is an important factor in its rising positive effect on the consumption values (economic, social and product quality value), attitudes and purchase intentions toward Olympic sponsors. Although it was hypothesized that arousal due to the Olympics positively affects consumption values, attitudes and purchase intentions toward sponsoring brands, analysis results revealed only one significant effect on emotional consumption value. These findings show that arousal and pleasure, which increase in the Olympic competition, play an independent role in evaluating the consumption value of sponsors. Further, factors evaluating the value of Olympic sponsors cannot be assessed only through winning or losing.

Keywords: emotion, pleasure, arousal, consumption value, sponsorship, Olympic sponsorship

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## **Introduction**

Olympic sponsorships are both a key source of revenue that makes hosting and operating the Olympic Games possible (IOC, 2020), as well as being a marketing tool for corporations used to interact with target markets and environments in the hopes of achieving their commercial goals (McDonald, 1991; Meenaghan, 1983). According to the Olympic Marketing Fact File (2020), revenue from The Olympic Partners (TOP) program has continuously increased since its inception in 1985 and has surpassed USD \$10 million in the Sochi 2014 Olympics and Rio de Janeiro 2016 Olympics.

Although the TOP program has enjoyed steady growth over the years, other Olympic sponsorship tiers, such as the local sponsors, official suppliers, and official supporters, have shown decreases in revenues since the 2008 Beijing Olympics (IOC, 2020). For example, local sponsorship revenues for the 2008 Beijing Olympics amounted to \$1,218 million while local sponsorship revenues for the 2016 Rio Olympics amounted to only \$848 million. Furthermore, McDonald's, an official sponsor of the Olympics for more than 40 years, surprised people by terminating their contract early (Caitlin, 2018). The 2018 Pyeongchang Olympics also reported trouble in acquiring sponsors during the early stages of preparations, and sponsors of the 2020 Tokyo Olympics have considered withdrawing their sponsorship contracts or amending the details of their sponsorship deals due to the COVID-19 pandemic.

Failure to acquire sufficient Olympic sponsorship revenues inevitably threatens many aspects of the Olympic Games and causes financial strain upon the host country or city. Sponsorship revenues are used in all aspects related to the preparation and execution of the Olympic Games, including infrastructure establishment, such as the construction of necessary sport venues and athlete accommodations, as well as being used in the daily operations of the organizing committee and affiliated organizations (IOC, 2020). A lack of sponsorship revenue transfers the financial burden to the host nation and necessitates the expenditure of tax revenues, ultimately instilling negative perceptions amongst the citizens about hosting the Olympic Games. Therefore, research that verifies the positive effects of Olympic sponsorships is needed to promote corporations to actively engage in Olympic sponsorships.

Meanwhile, the emotions that spectators experience when viewing Olympic competitions have powerful influences on attitudes and behaviors (Mao & Zhang, 2013). Spectators not only focus on the outcome of the competitions, but also expect to witness the manifestation of the Olympic values during the competition, as in the case of the women's 5000-meter incident where Abby D'Agostino helped a competitor to her feet and encouraged her to finish the race. In other words, Olympic consumers expect to experience a variety of emotions. Consumers experience positive emotions when they witness their team win as well as when they quality games and displays of sportsmanship

(Zillmann, Bryant, & Sapolsky, 1989). These emotional reactions tend to be stronger for more avid fans (Wann, Roberts, & Tindall, 1999). In a related vein, strong rewarding emotions, such as pleasure and arousal, are considered one of the essential factors driving sports consumption (Cummins, Keene, & Nutting, 2012; Hirt, Zillmann, Erickson, & Kennedy, 1992; Knobloch-Westerwick & Meng, 2009).

Importantly, these positive emotional reactions experienced during sporting events adds to the consumption value. In product consumption contexts, Koo et al. (2015) suggest that the emotional and hedonic value that consumers obtain from products is a significant factor through which consumption value is derived. Sheth, Newman and Gross (1991) also identified emotional value as one of five factors that significantly influence consumers' choices. Holbrook (1982) noted that emotions such as arousal, pleasure and fantasy are key factors in the experiential aspects of consumption. Given that sports spectating is experiential in nature, it is our contention that positive emotional experiences during sport spectating would transfer to more positive evaluations of the sponsors as well.

There are a number of previous studies showing the relationship between sports and emotions, mainly exploring the effects of brand attitudes, purchasing intentions, image transfer, and matchup model. However, little has been studied regarding the relationship between the emotions from Olympic Games and the consumers' consumption value of Olympic sponsors. Accordingly, it is necessary to investigate how the emotions elicited by spectating Olympic competitions affect the consumption value toward sponsors as well as spectators' attitudes and purchase intentions toward sponsoring brands. Therefore, the purpose of this study is to examine how emotional arousal and pleasure experienced during Olympic competitions affect the consumption value, attitude, and purchase intention toward sponsoring brands.

## **Literature Review**

### **Sponsorship**

Sponsorship is a long-standing marketing strategy that is frequently utilized in the fields of sports, arts, entertainment, and broadcasting (Cornwell & Maignan, 1998; Pansari & Kumar, 2017; Ryan & Fahy, 2012). Waite (1979) defined sponsorship as "goods or financial support provided in exchange for facilities or privileges aimed at providing publicity to the donors." Meenaghan (1983) also defined sponsorship as "the act of providing goods and financial support for certain activities such as sporting competitions, musical events, festivals, and exhibitions, to achieve commercial objectives." McDonald (1991) further defined sponsorship as "all marketing activities that affect the public image of the sponsor." Finally, according to the IEG Sponsorship Report, a sponsorship is "a cash or in-kind fee

paid to a property ([a property rights holder] typically in sports, arts, entertainment, or causes) in return for access to the exploitable commercial potential of that property” (IEG, 2018). Sponsorship has been studied and defined by various scholars, meaning that it is a commonly used marketing communications tool used by corporations to interact with target markets or environments for commercial purposes.

Corporations have utilized sponsorships as a marketing tool due its many benefits (Rifon, Choi, Trimble, & Li, 2004). Previous studies have shown that sponsorships affect consumers’ recall (Bennett, 1999; Dens, De Pelsmacker, & Verhellen, 2018; Hansen & Scotwin, 1995; Nicholls, Roslow, & Doublish, 1999), brand awareness (Bennett, 1999; Bloxham, 1998; Pham & Johar, 2001), corporate sponsor image (Boronczyk & Breuer, 2019; D’Astous & Blitz, 1995), attitude toward corporate sponsor (McDaniel, 1999; Speed & Thompson, 2000; Shu, King, & Chang, 2015; Stipp, 1998), and purchase intention toward sponsor’s products (Madrigal, 2001; McDaniel, 1999; Tomalieh, 2016). Similarly, the extant sports sponsorship research has also yielded generally similar results (e.g., Biscaia, Correia, Ross & Rosado, 2014; Dees, Bennett, & Villegas, 2008; Nassis, Theodorakis, Afthinos, & Kolybalis, 2014).

The Olympic Games are one of the biggest mega sporting events in the world and numerous corporations participate in the form of sponsorships (Stipp, 1998). As mentioned before, sponsorships are a type of investment through which corporations expect certain benefits. First, Olympic sponsor brands can gain world-wide exposure. Stipp (1998) notes that approximately 80% of the population views the Olympic Games, and few events can attract such a large number of viewers and visitors. Second, consumers are generally highly involved in the Olympic contests. Consumer involvement is inevitably high due to the fact that it is an international competition where nationalism plays a significant role (Choe, Kim, & Cho, 2020; Mutz & Gerke, 2018). This high involvement of viewers naturally spills over to the sponsoring corporations (Dekhil & Desbordes, 2013; Wakefield & Bennett, 2010). Third, the Olympics provide a unique platform through which corporate sponsors can create distinctive advertisements that target highly engaged worldwide consumers. These distinctive advertisements lead to consumers’ positive responses (Ertz, Cordes, & Buettgen, 2020; Sandler & Shani, 1989; Shen, Liu, Ball, Huang, Yuan, & Hua, 2020; Winters, 1986).

As such, the quantity of corporations engaging in Olympic sponsorships has continued to grow among sports sponsorships. As a result, a large body of prior work has investigated the effectiveness of Olympic sponsorships. For example, Stipp (1998) studied the impact of Olympic-related TV advertising on sponsoring corporations’ brand image. Morgan and Frawley (2011) explored the Australian Olympic Committee’s (AOC) sponsorship legacy after hosting the 2000 Sydney Olympic Games. Edwards (2016) studied the positive impact of Olympic sponsorship participation on the

sponsoring company's employees' organizational pride and CSR perceptions. However, past studies investigating the impact of Olympic sponsorship has primarily focused on the value of the Olympics in the perspective of the sponsoring corporations. Although these studies provide valuable insights into the financially and non-financial benefits that sponsoring brands can attain, they do not explain how certain characteristics of the Olympic experience transfer to the consumers and ultimately to positive reactions toward the sponsors. Thus, the current study aims to, first, examine the value that the Olympics provides to the consumers, and second, to investigate how these consumption values transfer to the sponsoring brands.

### **Pleasure-Arousal-Dominance (PAD) Emotional State Model**

The most widely used model for the classification and categorization of emotions is the Pleasure-Arousal-Dominance (PAD) Emotional State Model. Initially suggested by Mehrabian and Russell (1974), this model posits that emotions consist of the three fundamental dimensions of pleasure, arousal and dominance. Subsequently, Russell (1980) suggested the Circumplex Model of Affect in which he excluded the dominance dimension based on research indicating it did not contribute significantly to the classification of various emotions (Russell, Weiss, & Mendelsohn, 1989). A number of researchers applied the two-dimensional emotional model with one axis representing "displeasure-pleasure" and other representing "deactivation-activation" (Kim, 2000; Kim & Ahn, 2011; Lee & Moon, 2012). According to these two-dimensional models of emotions, emotions are a result of a change in core affect, accompanied by substantial changes in the magnitudes of at least one of the two dimensions (i.e., valence and arousal). These emotions are then cognitively appraised as to its cause and given meaning (Russell, 2003).

The pleasure dimension is commonly referred to as the valence of the emotional experience ranging from positive to negative (Barret, Mesquita, Ochsner, & Gross, 2007; Russell & Barrett, 1999). In consumption contexts, the pleasure dimension involves a general assessment of the change in core affect and is appraised as either being beneficial (i.e., positive emotional experience) or detrimental (i.e., negative emotional experience) to the individual. Past studies have suggested a mood congruent priming theory where consumers' attitudes (i.e., general positive or negative assessments) towards brands and future behavior are influenced by their consumption emotions (e.g., Kamins, Marks, & Skinner, 2013; Lee, Chang, Kim, & Lim, 2019; White & McFarland, 2009). For example, Kamins and colleagues (2013) found that individuals rated TV commercials more positively when they were followed by TV shows inducing positive emotions compared to shows inducing negative emotions. In other words, emotions elicited during the consumption experience act as a priming cue and causes consumers to make judgments consistent with their emotional state. In a sport spectating context,

Biscia, Correia, Rosado, Maroco, and Ross (2012) found that only the positive emotion of Joy was positively correlated to satisfaction of the spectating experience and merchandise purchase intentions.

Meanwhile, arousal refers to the intensity of emotions experienced, ranging from a calm or unexcited state to and extremely excited state. In other words, arousal can be understood as the individual's perception of the degree of physiological activation during an emotional experience (Barrett, 1996) and has often been operationalized as the level of activation of the autonomic nervous system (Caruelle, Gustafsson, Shams, & Lervik-Olsen, 2019). Arousal is distinct from the valence of the emotion as both positive and negative emotions can have similar levels of arousal. Furthermore, according to arousal theory, people have a desire to maintain a certain level of emotional stimulation (i.e., arousal) and seek experiences that can fulfill this desire (Chang, 2017; Woo & Lee, 2020).

In the context of the current study, the excitation transfer theory (Zillmann, 1971) suggests that arousal levels induced by a particular stimulus is often transferred to subsequent or simultaneous stimuli. According to the theory, excitation of the autonomic nervous system decays slowly and persists even after the experience that caused the excitation has ended. Therefore, this residual arousal transfers to subsequent reactions about various stimuli, leading to more favorable reactions.

## **Hypotheses**

As mentioned in the introduction, the consumption of Olympic contests is a hedonic experience where various emotions are induced. Thus, it is important to explore the influence of emotions on the consumption value of Olympic sponsors. Furthermore, value is derived from not only economic factors, but social and emotional factors as well. Consumer value refers to the perceived value of a product based on what consumers have paid (Zeithaml, 1988). Sheth, Newman, and Gross (1991) presented a multidimensional approach to consumer value that includes functional value, social value, emotional value, epistemic value, and conditional value. Functional value is the perceived benefits that consumers receive from a product or experience, such as its functionality, practicality, and physical performance. Social value is the consumer's perception about the degree to which the consumption of product or experience leads to enhancements in their relationships with an individual or social group. The emotional value of a product or experience relates to the degree to which it is perceived to evoke favorable emotions. Epistemic value represents the product or experience's ability to provide new experiences, knowledge, and stimulate curiosity. Conditional value relates to the utility of the product or experience in specific contexts. Among the various consumption values, the current study utilizes functional, social, emotional, and quality(conditional) values, which are all in line with the study's purpose.

In a previous study on the connection between pleasure and consumption value, positive emotions were shown to influence consumers' perceptions of the consumption value of a product (Bagozzi et al., 1999). Similarly, Hyun, Kim, and Lee (2011) found that arousal affects how consumers perceive the value of advertisements. Thus, this study predicted that arousal and pleasure generated by the Olympic Games would positively impact individuals' perceptions about the sponsoring brand's consumption values.

The literature on sponsorship indicates that sports sponsorship represents an important part of the sponsorship industry (Rifon et al., 2004). Among sports sponsorship studies, brand attitudes and purchase intentions are the most commonly explored outcome variables. Attitude refers to the level of positive or negative relevance of a brand or product (Lee, Chang, Kim, & Lim, 2019). Furthermore, purchase intentions indicate future actions or behaviors towards the brand or product and measures an individual's likelihood to consume their products.

Previous studies examining pleasure and sponsoring brands have demonstrated that positive emotions positively influenced the attitude of participants towards the sponsors (Zillmann et al., 1989). Similarly, arousal has been shown to positively influence reactions to advertisements following sporting events (Bee & Madrigal, 2012). Thus, the current study predicted that pleasure and arousal induced by the Olympic Games would have a positive impact on participants' attitudes toward the sponsor and purchase intentions toward the sponsor's products. Based on the literature review, the hypotheses of the current study are as follows:

H1-1: Arousal induced by the Olympic Games will positively influence the consumption value (economic, social, emotional and product quality value) towards the sponsor.

H1-2: Pleasure induced by the Olympic Games will positively influence the consumption value (economic, social, emotional and product quality value) towards the sponsor.

H2-1: Arousal induced by the Olympic Games will positively influence the attitudes and purchase intentions towards the sponsor.

H2-2: Pleasure induced by the Olympic Games will positively influence the attitudes purchase intentions towards sponsor.

## Method

### Participants

Study participants consisted of active sports media viewers in their 20s through 40s residing in Seoul and surrounding metropolitan areas. Sample recruitment was achieved via convenience sampling. The current study purposefully selected experiment participants whom have a vague memory about the contents of the stimulus material, in accordance to past studies suggesting that a clear memory of the events can affect emotional responses (Westbrook & Oliver, 1991). A-prior sample size calculations were conducting using the G\*Power statistical software (Heinrich Heine University Düsseldorf, Düsseldorf, Germany; Faul, Erdfelder, Buchner, & Lang, 2009). Results indicated that the minimum sample size required was 24 participants [medium effect size ( $f = 0.25$ ),  $\alpha = .05$ ,  $1 - \beta = 0.80$ ]. Thus, the current study recruited 30 participants to improve the external validity of the study and as a precaution to unusable data.

### Measures

All scale items were measured on seven-point Likert-type scales ranging from (1) strongly disagree to (7) strongly agree. Physiological arousal levels were measured by utilizing the Biopac MP-160 hardware. This equipment measures the electrodermal activity (EDA) of participants by reading secretions from the sweat glands in participants' fingertips. Pleasure (Cronbach's  $\alpha = .94$ ) was measured by revising the six-item scale used by Bradley and Lang (1994) and Mehrabian and Russell (1974). Sample items include "I like this game" and "I feel better after watching the game". *Consumption value* towards the sponsor consisted of four factors: (1) economic value, (2) social value, (3) emotional value, and (4) product quality value. All consumption value scales were measured by revising items used by Sheth, Newman, and Gross (1991) and Sweeney and Soutar (2001). Economic value (Cronbach's  $\alpha = .88$ ) consisted of four items including "Purchasing [sponsor]'s product is worth it" and "The time it takes to consume [sponsor]'s products is worthwhile". *Social value* (Cronbach's  $\alpha = .94$ ) consisted of four items such as "I think others will accept me more by consuming [sponsor]'s products" and "I think consuming [sponsor]'s products will contribute to my socializing with others". *Emotional value* (Cronbach's  $\alpha = .96$ ) consisted of five items including items such as "I would feel comfortable using [sponsor]'s products" and "I would feel better if I use [sponsor]'s products". *Product quality value* (Cronbach's  $\alpha = .95$ ) consisted of six items such as "Products from [sponsor] are made of good ingredients" and "Products from [sponsor] are manufactured with high quality". *Attitude* towards sponsor (Cronbach's  $\alpha = .93$ ) consisted of three items such as "I have a good feeling about [sponsor]" and "I feel positive about [sponsor]". *Purchase intention* toward sponsor (Cronbach's  $\alpha =$



.88) consisted of three items such as “I will buy [sponsor]’s products with confidence” and “I will consider using [sponsor] products”.

### Reliability Analysis for Scale Items

The Cronbach’s  $\alpha$  coefficients for each variable was shown to range between .87 to .96 indicating that the measures used were reliable and that the internal consistency of all variables was achieved (Nunnally & Bernstein, 1994). The means, standard deviations, and reliability analysis results of scale items are presented in Table 1.

Table 1. Reliability Analysis for Scale Items.

Construct	M	SD	Cronbach’s $\alpha$	Arousal	Pleasure	Economic	Social	Emotional	Product Quality	Attitude	Purchase Intention
Arousal	2.97	1.15	0.87	1							
Pleasure	3.27	1.33	0.94	.644**	1						
Economic	4.51	.94	0.88	0.291	0.254	1					
Social	4.11	1.14	0.94	0.103	0.276	.694**	1				
Emotional	4.36	1.06	0.96	0.244	.411*	.760**	.612**	1			
Quality	5.07	1.11	0.95	.376*	.505**	.753**	.500**	.716**	1		
Attitude	5.09	1.00	0.93	0.141	.370*	.742**	.576**	.540**	.716**	1	
Purchase Intention	4.90	1.00	0.88	0.291	.427*	.849**	.618**	.799**	.760**	.796**	1

### Experimental Design

**Stimuli Selection** Stimulus materials were selected expert panel discussions consisting of one sports management professor and 15 masters and doctoral students. The stimuli selection process considered three factors: (1) the atmosphere of competition (static sports vs. dynamic sports), (2) the type of Olympic (summer vs. winter), and (3) the degree of involvement in competition (Korean player involved vs. other nations). Based on these criteria, the men’s doubles badminton matches which occurred at the 2012 London Olympics were selected as the final experimental stimuli. The full matches were edited to produce four stimulus videos according to pleasure and arousal (i.e., Pleasure and High Arousal, Pleasure and Low Arousal, Displeasure and High Arousal, Displeasure and Low Arousal).

***Fictional Article*** Sponsor-related fictional articles were produced through an expert panel discussion with one sports management professor and two PhD researchers to confirm the effect of arousal and pleasure on the Olympic sponsor. The fictional articles were produced by considering three factors: (1) an existing image of the sponsor, (2) a sport-related image of sponsor, (3) the image of the host nation of the Olympics.

***Experimental Procedure*** Upon arrival, participants received a brief explanation of the experiment and were provided consent forms to sign. Once consent was given, participants were randomly assigned to one of two groups of pleasure and displeasure (i.e., Korean team win condition vs. Korean team loss condition). Participants were seated in front of a monitor as the researchers attached the EDA experimental equipment to his/her fingers. To establish the baseline state of arousal, the experimental manual was read to the participant for about one minute. Next, participants read the stimulus article depicting a corporation's decision to support the Olympics as an official sponsor, followed by questionnaire items measuring consumption value, attitude toward the sponsor, and sponsor product purchase intentions. Subsequently, participants were asked to watch a total of two stimulus videos (i.e., high arousal and low arousal) in random order. After each video, participants were asked to once again answer questionnaire items about consumption value, attitudes, and purchase intentions. The experiment proceeded for approximately 30 minutes per participant.

### **Data Analysis**

Data preparation, frequency analysis, descriptive analysis, and scale item reliability analysis were performed using the SPSS 25.0 statistical package. To verify the manipulation of the stimuli and hypotheses of the study, a series of independent samples t-tests and two-way ANOVAs were performed.

## **Results**

### **Manipulation Check**

Manipulation checks were conducted to verify that the pleasure (Winning vs. Losing) and arousal (High vs. Low) groups effectively manipulated the constructs as intended. A total of 30 participants completed a survey, an average comparison of the pleasure and the arousal induced from the Olympic competition was analyzed using independent-samples t-tests. According to the result, the mean difference in pleasure between the winning and losing groups was significant ( $t=-2.89$ ,  $p < .01$ ). Specifically, participants in the win condition ( $M=4.94$ ,  $SD=1.58$ ) displayed higher pleasure than

participants in the loss condition ( $M=3.77$ ,  $SD=1.53$ ). In the case of the arousal, the mean difference between the high-arousal and low-arousal group was significant ( $t=-10.22$ ,  $p <.001$ ). Specifically, the high-arousal group ( $M=5.81$ ,  $SD=.81$ ) showed higher arousal levels than the the low-arousal group ( $M=3.11$ ,  $SD=1.20$ ).

### **Hypotheses Testing**

To test hypothesis 1, a series of 2 (Pleasure: Win/Loss)  $\times$  2 (Arousal: High/Low) analysis of variance (ANOVA) on each consumption value of the sponsor were conducted. First, pleasure positively influenced the economic value of the sponsor ( $F=4.62$ ,  $p <.05$ ), where participants in the win condition expressed higher economic value ( $M=4.73$ ,  $SD=1.12$ ) than the loss condition ( $M=4.05$ ,  $SD=1.03$ ). However, there was no significant difference between the high and low arousal groups ( $F=8.27$ ,  $p =.16$ ) for the economic value. Second, pleasure had significant effects on the social value of the sponsor ( $F=8.27$ ,  $p <.05$ ), where the win group expressed higher social value ( $M=4.63$ ,  $SD=1.24$ ) than the loss group ( $M=3.77$ ,  $SD=1.18$ ). There was no significant difference between the high- and low-arousal groups ( $F=3.85$ ,  $p =.06$ ) for social value. Third, arousal had a significant effect on the emotional value of the sponsor ( $F=4.95$ ,  $p <.05$ ), where the high-arousal group expressed higher emotional value ( $M=4.51$ ,  $SD=1.31$ ) than the low-arousal group ( $M=3.86$ ,  $SD=1.10$ ). However, there was no significant difference between win and loss ( $F=3.06$ ,  $p =.09$ ) for emotional value. Fourth, pleasure had a significant effect on the product quality value of the sponsor ( $F=8.38$ ,  $p <.01$ ), where the win group expressed higher product quality value ( $M=5.22$ ,  $SD=.96$ ) than the loss group ( $M=3.77$ ,  $SD=1.18$ ). There was no significant difference between the high- and low-arousal groups ( $F=.378$ ,  $p =.06$ ) for the product quality value. A summary of the results for hypothesis 1 can be found in table 1.

Table 2. Hypothesis 1 summary of results

Source	Dependent variable	SS	df	MS	F(p)
Intercept	Economic value	1194.35	1	1194.35	1014.34
	Social value	1087.80	1	1087.80	756.85
	Emotional value	1101.95	1	1101.95	754.31
	Product quality value	1469.92	1	1469.92	1544.73
Arousal	Economic value	2.45	1	2.45	2.08
	Social value	5.53	1	5.53	3.85
	Emotional value	7.22	1	7.22	4.95*
	Product quality value	3.60	1	3.60	3.79
Pleasure	Economic value	5.44	1	5.44	4.62*
	Social value	11.88	1	11.88	8.27**
	Emotional value	4.47	1	4.47	3.06
	Product quality value	7.98	1	7.98	8.38**
Arousal * Pleasure	Economic value	0.09	1	0.09	0.08
	Social value	0.68	1	0.68	0.47
	Emotional value	0.81	1	0.81	0.56
	Product quality value	1.51	1	1.51	1.59
*: *p <.05, **: p<.01, ***: p<.001					

To test hypothesis 2, a series of 2 (Pleasure-Win/Lose) × 2 (Arousal-High/Low) analysis of variance (ANOVA) on attitude toward sponsor and purchase intention of the sponsoring brand were conducted. Results indicated that, first, pleasure had a significant effect on attitude toward sponsor ( $F=9.31$ ,  $p <.01$ ), where the win group expressed more favorable attitudes ( $M=5.27$ ,  $SD=1.07$ ) than the loss group ( $M=4.55$ ,  $SD=.70$ ). However, there was no significant difference between the high- and low-arousal groups ( $F=2.39$ ,  $p =.13$ ) in their attitudes toward the sponsor.

Second, pleasure had a significant effect on purchase intentions for the sponsor's products ( $F=7.27$ ,  $p <.01$ ), where the win group expressed higher purchase intentions ( $M=5.18$ ,  $SD=1.10$ ) than the loss group ( $M=4.45$ ,  $SD=1.01$ ). There was no significant difference between high- and low-arousal groups ( $F=3.61$ ,  $p =.06$ ) in their purchase intentions for the sponsors products. Hypothesis 2 test results are summarized in table 3.

Table 3. Hypothesis 2 summary of results

Source	Dependent variable	SS	df	MS	F(p)
Intercept	Attitude	1438.07	1	1438.07	1738.38
	Purchase intention	1385.43	1	1385.43	1275.33
Arousal	Attitude	1.98	1	1.98	2.39
	Purchase intention	3.92	1	3.92	3.61
Pleasure	Attitude	7.70	1	7.70	9.31**
	Purchase intention	7.90	1	7.90	7.27**
Arousal * Pleasure	Attitude	0.65	1	0.65	0.78
	Purchase intention	0.05	1	0.05	0.05
*: p<.05, **: p <.01, ***: p <.001					

## Discussion

The purpose of this study was to examine how arousal and pleasure experienced during the Olympic Games affect consumption value, attitude, and purchase intentions toward sponsoring brands. The results indicated that participants in the win group expressed higher consumption value for economic, social and product quality value than the participants in the loss group. Also, pleasure had a positive impact on attitudes and purchase intentions toward the Olympic sponsor and the sponsor's products. On the other hand, arousal induced by the Olympic competition was found to have a significant impact only on the emotional value of the Olympic sponsor. Also, arousal did not have a significant effect on the attitudes and purchase intentions toward the Olympic sponsor and their products.

The finding of the current study suggests that emotional pleasure induced while viewing Olympic competitions is an important factor for increasing positive evaluations about Olympic sponsors. The results show that the participants rated the consumption value of the Olympic sponsoring brands higher when their favored team won compared to when they were defeated. These results indicate that consumers feel a high sense of pleasure when their team wins, and this general elated state transfers to the assessment of relevant stimuli (Kamins et al., 1991), in this case, the Olympic sponsor. Therefore, pleasure experienced during the consumption of an Olympic competition led to more positive evaluations about the consumption value of the Olympic sponsor. These findings support Russel and Barrett's (1999) notion that pleasure dimension is a significant influencer of human behavior.

Although it was hypothesized that emotional arousal experienced during the consumption of an Olympic competition would positively influence the consumption values, attitude, and purchase intentions toward the sponsor, results revealed that only the emotional value of the sponsor was significantly affected by arousal. These results are in contrast to past studies that found arousal to have a significant impact on the attitudes and behaviors towards sport event sponsors (Bee & Madrigal, 2012).

Of particular interest was that pleasure and arousal had an impact on different consumption values. Specifically, pleasure positively influenced the economic, social, and product quality values whereas arousal had a positive effect on emotional value. These findings support Russel, Weiss, and Mendelsohn's (1989) notion that arousal and pleasure are two independent dimensions. Furthermore, given that individuals are motivated to prolong their positive emotions while minimizing negative emotions (e.g., mood maintenance theory; Clark & Isen, 1982), following a win, evaluations about the economic, social, and product quality value of the sponsor were most likely positive, because the simple act of contemplating negative aspects induces negative emotions (Choi, Jung, Oyunbileg, & Yang, 2016). However, for the emotional value, the valence of the emotion itself may have not been sufficient to make judgments about the emotional value because stronger emotions are known to have a larger influence on attitudes about the experience itself, whether it be positive or negative (Caneli, Desmond, Zhao, & Gabrieli, 2002). Thus, the emotional experience would have been memorable only when the emotions experienced were accompanied by high levels of arousal.

Taken together, the consumption value of an Olympic sponsor cannot be assessed simply by considering the outcome of the competition. It can be assumed that certain aspects of the pleasure domain and arousal domain exert differential influences on various value perceptions, attitudes, and behavior. However, follow-up studies are required to confirm these interpretations.

## **Theoretical and Practical Implications**

Past studies investigating the circumplex model within the sport context have investigated the joint influence of the pleasure and arousal dimensions of emotion. Meanwhile, the current study contributes to the literature by investigating the independent effects of pleasure and arousal induced by viewing the Olympic games. Furthermore, while past studies measured arousal via self-report methods, the current study utilized a more objective and reliable measure through electrodermal activity measurement. Due to the fact that emotions often occur in succession, the current study utilized experimental methods to induce pleasure and arousal separately. The use of physiological measurement techniques conducted in this study provides implications for the application and development of

relevant research in the field of sport management. Furthermore, the current study also demonstrates the relationship between pleasure and arousal with consumption value. To the best of our knowledge, this is the first study to investigate the influence of pleasure and arousal on the consumption values of a sponsoring brand.

Practically, the current study provides potential sponsors of the Olympics with empirical evidence as to the effectiveness of Olympic sponsorships. Furthermore, the results of this study can be used as a basis for identifying and predicting how the emotions induced by the Olympic Games affect the consumption values of the brands. Therefore, managers of each Olympic sponsor may use the results of this study to develop an appropriate marketing strategy that aligns with their sponsorship objectives.

### **Limitations and Directions for Future Studies**

While the current study has enhanced our understanding of the effect of emotions (i.e., pleasure and arousal) on the consumption value of the Olympic sponsoring brands, it isn't without its limitations that must be addressed in future studies. First, only one Olympic sport (i.e., badminton) was used as the stimulus material. The Olympics include over 50 different sports in the summer and winter seasons. Since each sport has its own characteristics, the results of the current study should be generalized with caution. Future studies may explore the current study's effect across different sports and distinguish each sport according to its prevalent characteristics.

Second, in this study, only one type of Olympic sponsor was selected as the stimulus of interest. As mentioned in the introduction, there are several tiers of sponsors for the Olympics such as the TOP program, official sponsors, official suppliers, and official supporters. The current study used those the official supplier tier to control for participants' prior knowledge about companies included in higher tiers. Thus, follow-up studies may investigate the influence of pleasure and arousal on the consumption values according to the type of sponsorship.

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