

# **FACTORS ASSOCIATED WITH AN ATHLETIC DONOR'S INTENTION TO DONATE TO GREEN STADIUM INITIATIVES OF A COLLEGIATE ATHLETIC PROGRAM**

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## **ABSTRACT**

The purpose of this study was to investigate athletic donors' (behavioural, normative, control, recognition) beliefs, behavioural attitude, recognition attitude, subjective norm, perceived behavioural control, and behavioural intention toward financially supporting green stadium initiatives (GSI) in an intercollegiate sport setting, and the relationships among the variables. Research participants were athletic donors ( $N = 114$ ) of a collegiate athletic program located in the southeastern U.S. An online survey was conducted to measure the specified variables. Hierarchical regression analyses revealed that donation intention toward GSI was influenced by donation attitude and social norm, while recognition attitude and perceived behaviour control were not relevant. The discussion is focused on establishing educational programs to elevate donor beliefs in GSI, foster positive attitude, and enhance supportive norms

## **KEYWORDS**

Green stadium initiatives; Theory of planned behaviour;  
Athletic donation; Environment; College sport facility

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## **INTRODUCTION**

The earth's resources are consumed at an increasingly unsustainable rate, which contributes to serious environmental issues such as climate change, pollution, loss of useful land, and hazardous

human living conditions (Intergovernmental Panel on Climate Change [IPCC], 2007). In the U.S., buildings use 71% of the nation's electricity and produce 40% of the non-industrial waste (United Nations Environment Program [UNEP], 2009). In recent years, green building design, particularly the Leadership in Energy & Environmental Design (LEED), has received increasing societal and industrial attention, and evolved as a mechanism to deal with limited resources and reduce the negative impact on the environment.

Green buildings on campus have been embraced by many colleges and universities. According to the United Nations (UN)'s Resolution 57/254, colleges and universities bear the fundamental responsibility of sustaining and improving human society through their exploring, teaching, and service missions (The Princeton Review, 2011). In 2007, the American College and University Presidents' Climate Commitment (ACUPCC) was launched to "educate students, create solutions, and provide leadership by example for the rest of society" (The Princeton Review, 2011, p. 8). It has almost 700 members, among which 79% have committed to achieving at least LEED Silver certification or its equivalence in all of their new construction and major renovation efforts (ACUPCC, 2014a, 2014b). By the end of 2009, 571 projects on campuses had achieved LEED certification (Galayda & Yudelso, 2010).

Among all buildings on a university campus, few can represent the large campus community better than sports facilities. Previous researchers have examined the role of intercollegiate athletics in higher education and shared a common view that athletics provide a way for external constituents to relate to and interact with the institution (e.g., Duderstadt, 2000; Shulman & Bowen, 2001; Toma, 1999; Toma, 2003). They also serve as an important introduction to the broader mission of the institution (Stinson & Howard, 2010). Consequently, collegiate sport facilities should reflect higher education's support of green building policies and their design should typically warrant high levels of LEED certification.

Many college athletic programs have recognized the significance of green stadium initiatives (GSI) and invested in GSI by retrofitting or building new sustainable stadiums. For instance, the Pennsylvania State University, the University of Minnesota, the University of Texas and the University of Florida have all achieved LEED certification for one or more of their athletic facilities. Green sport stadiums may require extra financial resource, which may be significant for a majority of the NCAA Division I athletic departments as most have recently struggled to balance revenues and expenses (Fulks, 2012). To sustain these athletic programs, many of them have started seeking other revenue sources and have become heavily dependent on private athletic donations (Fulks, 2003, 2008).

Motives for collegiate athletic donations have been frequently studied to gain a better understanding of donors. Many motives have been identified, including but not limited to, tax deductions, priority seating, professional and social contacts, special parking, and improving the quality of the university's academic and athletic programs (Gladden, Mahony, & Apostolopoulou, 2005; Stinson & Howard, 2007, 2010). However, to date, little research attention has been paid to understand donor reactions to a college athletic program's environmental initiatives, especially GSI. As a part of an athletic program's sustainability initiatives, GSI may potentially contribute to additional revenue opportunities through GSI-specific fundraising. When taking into consideration the current economic downturn and financial challenges faced by many NCAA

institutions, it appears particularly necessary to examine the potential fundraising impact resulting from an athletic department's GSI activities.

The theory of planned behaviour (TPB) has been widely considered as a viable model to predict diverse environmentally friendly behaviours (e.g., Han, Hsu, & Sheu, 2010; Kaiser, Wöfling, & Fuhrer, 1999; Mannetti, Pierro, & Livi, 2004) and general donor intentions and behaviours (e.g., Ferguson & Chandler, 2005; Hübner & Kaiser, 2006). However, few studies have investigated donor intention for an environmental cause, not to mention testing the TPB in predicting such a behaviour. Jin, Mao, Zhang, and Walker (2011) applied the TPB to examine potential donor intentions resulted from collegiate GSI and found that individual attitude and subjective norm together explained 29% of the variance in donor intentions. However, their study employed a student sample, instead of actual athletic donors, which may not be representative of how athletic donors would react to GSI. Additionally, recognition deemed as a significant factor in determining giving intentions (Smith & McSweeney, 2007) should also be examined in addition to variables included in the TPB. Therefore, adopting the TPB as a theoretical framework, the purpose of this study was to examine the impact of beliefs (behavioural, normative, and control), attitude, subjective norm, perceived behaviour control, and recognition (belief and attitude) on donor intentions associated with giving to GSI in a collegiate athletic setting.

#### **LITERATURE REVIEW**

Research showed that buildings consume 40% of the world's materials, 55% of the wood cut for non-fuel use, 40% of the world's energy, and create 36% of the carbon dioxide emissions that cause global warming (UNEP, 2009). With the attempt to reduce this growing environmental impact, green buildings have become a widely embraced movement. In 1998, LEED was launched by the United States Green Building Council to evaluate a building's environmental performance. Four levels of LEED certification (Certified, Silver, Gold, and Platinum) can be awarded based on the points achieved on Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality. Currently, LEED has been pursued in all 50 states and over 130 countries, becoming an internationally recognized standard for construction, operation, and maintenance of green building.

#### **LEED in Sport Field**

Recently, many professional and collegiate sport organizations in North America have invested in their new or existing sport facilities to achieve LEED certification. As of 2012, fifteen professional sports venues in North America have received LEED certification, such as the Washington Nationals' National Park, the Miami Heat's American Airlines Arena, and the San Francisco Giants' AT&T Park (NRDC, 2013). Collegiate sports have also invested in sustainable buildings. For example, Penn State's Medlar Field was the first baseball stadium in the U.S. to receive LEED certification (Penn State, 2007). The University of Minnesota's TCF Bank Stadium, the University of Florida's Heavener Football Complex, the University of Connecticut's Burton-Shenkman Football Complex, and the University of North Texas' Apogee Stadium have all been awarded various levels of LEED certification. Following the green building movement, sport organizations can contribute to a greater community impact on providing inspiration in green building and environmental concerns since athletes, teams, and event organizers are typically involved in extensive media activities. Nonetheless, limited financial resources may become one of the most important obstacles for sport organizations, especially intercollegiate sport programs, to support

GSI because green buildings are usually considered to have higher construction cost than conventional buildings. Research findings indicate that the construction cost premium for LEED buildings may range from 0.8% to 11.5% depending on the LEED level achieved (Turner Green Building, 2005). Apparently, additional financial sources are needed to encourage the construction of green sport venues.

#### **Athletic Donation as an Important Revenue Source**

Roughly three-fourths of the major collegiate athletic departments lose money (Howard & Crompton, 2004). From 2004 to 2008, the median operating spending for athletic programs among NCAA institutions increased by 43%, whereas the median revenue generated grew only by 33% (Fulks, 2008). Many programs have started actively seeking financial sources beyond traditional revenue streams and consider private donations as one of their main income.

Historically, fundraising programs have assisted in counteracting the financial pressures presented to Division I athletic programs. The proportion of private donations in the total revenue of Division I athletic programs has increased steadily over the years. In 1965, fundraising represented 5% of the Division I athletic programs' total revenue (Fulks, 1994). The percentage increased to 15% between 1985 and 1989, 18% in 2001, and rose to 20% in 2004 (Howard & Crompton, 2004). In 2008, the NCAA reported that athletic contributions accounted for 25% of the total revenue, while ticket sales comprised 23% (Fulks, 2008). In 2011, donations made up 28% and 29% of the total revenue generated by the Football Championship Subdivision (FCS) and Division I without football (DI without FB) respectively, which were much higher than the percentages for ticket sales (i.e., 16% and 19% respectively) (Fulks, 2012). College athletic fundraising is viewed as a revenue stream that has a vast potential to continuously grow and support athletic programs (Gladden et al., 2005; Mahony, Gladden, & Funk, 2003). Considering the increased cost associated with building green athletic facilities, understanding the influence of GSI programs on donation would be necessary.

#### **Athletic Donor Motives**

Research on athletic donor motives has revealed various factors that can influence people's donation behaviour. For instance, an institution's student body size, status (public versus private), location, image, reputation, and recent achievements can all impact athletic donations (Covell, 2005; Mahony et al., 2003). Among the identified motives, the commercial value of tickets and social access has been considered a primary motive for athletic giving, especially at a donor's initial donating stage (Gladden et al., 2005). Stinson and Howard (2007) found that 70% of average athletic donors give near the minimum required gift levels to secure the ticket and parking benefits associated with the gift. However, many major donors expressed a strong desire to make their most significant gifts to provide "a more meaningful impact or touch lives in a more crucial way than helping the fortunes of athletic programs" (Stinson & Howard, 2010, p. 322). Many major athletic donors are proud of being able to make more meaningful, philanthropic gifts to a program or organization that they care much about. These should be promising findings for many athletic programs that are struggling with financial resources. Research evidence has showed that major athletic donors usually have strong emotional connections with an athletic program or the institution (Stinson & Howard, 2010). One main consideration is to create a meaningful cause rather than highlighting commercial incentives so as to satisfy a donor's good will and expectations when making a significant gift. Gladden et al. (2005) revealed that

philanthropic motives, such as supporting and improving the athletic program and helping student-athletes, were major reasons for athletic donations. Mahony et al. (2003) also found that the most critical motivators for athletic donations in a descending order were: athletic program's future success, current success, school history and prestige, priority seating, and psychological commitment. Taking these into comprehensive consideration, sustainable initiatives applied by athletic programs, such as the GSI, could be a meaningful, philanthropic cause for donors who give to support the success of the programs, school prestige, and psychological commitment. Due to the extensive popularity and media attention of college sports, pro-environmental actions initiated by athletic programs have great potential to raise environmental awareness and encourage pro-environmental behaviours among the student athletes, spectators, and the greater academic community.

### **Theory of Planned Behaviour**

The theory of planned behaviour (TPB) focuses on an individual's motivational factors as determinants of the likelihood of performing a specific behaviour (Ajzen, 1991). A meta-analysis of 185 studies by Armitage and Conner (2001) demonstrated that the TPB model accounts for, on average, 39% of the variance in behaviour intentions and 27% of the variance in actual behaviours. Research evidence has indicated that the TPB is successful in predicting diverse environmental behaviours, such as waste composting, water conservation, household recycling, use of public transportation, and general pro-environmental behaviour (Kaiser, Hübner, & Bogner, 2005; Kaiser et al., 1999; Mannetti et al., 2004). Some recent studies also found that the TPB accounted for 76% of the variance in people's conservation intentions and 95% in conservation behaviour (Kaiser et al., 2005), 56% variance in people's intention to choose green hotels (Han et al., 2010), and 39% variance in behavioural intentions toward the 3Rs (reduce, reuse, and recycle) in Singapore (Low, Tan, Darwitan, & Ng, 2011). Moreover, the application of TPB in various donation contexts showed general support of its usefulness in charitable giving (Smith & McSweeney, 2007), organ donation (Hubner & Kaiser, 2006), blood donation (Ferguson, France, Abraham, Ditto, & Sheeran, 2007), and GSI donation (Jin et al. 2011). Thus, it is reasonable to adopt the TPB to examine one's donation intention toward an environmental cause.

According to the TPB, a person's behaviour is predicted by his/her behavioural intentions, which in turn is determined by his/her attitudes, subjective norms, and perceived behaviour control associated with the behaviour. The relative influences of attitudes, subjective norms, and perceived behaviour control in determining intentions vary across different behaviours and populations (Ajzen, 1991). For instance, Powpaka (1996) found that the most consistent determinant of a person's intention to organ donation was his/her attitude. Linden (2011) identified attitude and perceived behavioural control as significant predictors of charitable giving intentions, while social norm was not related to intention. Fielding, McDonald, and Louis (2008) showed that positive attitudes and stronger normative support were correlated with higher intentions to engage environmental activism; however, perceived behaviour control did not explain any variance in intention. Hubner and Kaiser (2006) found that attitude, subjective norm, and perceived behavioural control were all significant predictors of people's intentions to sign an organ donor card. Similarly, attitude, subjective norm, and perceived behaviour control were all found to be positively associated with intention to stay at a green hotel (Han et al., 2010) and intention to pay conventional-hotel price for a green hotel (Kim & Han, 2010). Based on the TPB

and previous research findings, in this study it was hypothesized that a college athletic donor's intention to donate to GSI is determined by his/her attitudes, subjective norms and perceived behaviour control associated with the behaviour:

*H<sub>1</sub> Attitudes toward donating to GSI would be positively related to athletic donors' intention to donate to GSI.*

*H<sub>2</sub> Subjective norms toward donating to GSI would be positively related to athletic donors' intention to donate to GSI.*

*H<sub>3</sub> Perceived behaviour control toward donating to GSI would be positively related to athletic donors' intention to donate to GSI.*

According to the TPB (Ajzen, 1991), attitude is defined as a person's overall favourableness or unfavourableness toward conducting the behaviour. Attitude is determined by an individual's beliefs about the outcomes of conducting the behaviour (i.e., behavioural beliefs). A person's subjective norm refers to the perceived social pressure to carry out the behaviour. One's subjective norm is determined by his or her normative beliefs, where important referent individuals may approve or disapprove of performing the behaviour. Perceived behaviour control assesses one's self-efficacy and confidence in carrying out the behaviour. It accounts for factors outside individual control that may affect one's intentions and behaviours. Perceived behaviour control is a function of one's control beliefs concerning the presence or absence of resources or opportunities required to execute a behaviour.

Researchers employing the TPB to predict behavioural intentions and/or actual behaviours usually only include three immediate antecedents (attitude, subjective norm, and perceived behaviour control), while excluding aforementioned behavioural, normative, and control beliefs (e.g., Fielding et al., 2008; Linden, 2011; Hubner & Kaiser, 2006; Low et al., 2011; Powpaka, 1996; Smith & McSweeney, 2007). Only a few studies are found to have tested the proposed relationships among attitude, subjective norm, and perceived behaviour control, and their corresponding beliefs. For example, Kim and Han (2010) used the TPB to study price for a green hotel and revealed that behavioural, normative, and control beliefs had a positive impact on attitude, subjective norms, and perceived behaviour control, respectively. Han et al. (2010) also tested the relationships among these six variables associated with staying at a green hotel, and found results consistent with the TPB. Based on the aforementioned theoretical and empirical foundation, the following hypotheses were developed:

*H<sub>4</sub> Behavioural Beliefs of donating to GSI would be positively related to athletic donors' attitudes toward the behaviour.*

*H<sub>5</sub> Normative beliefs of donating to GSI would be positively related to athletic donors' subjective norms toward the behaviour.*

*H<sub>6</sub> Control Beliefs of donating to GSI would be positively related to athletic donors' perceived behaviour control toward the behaviour.*

The TPB suggested that (behavioural, normative, and control) beliefs indirectly impact behaviour intention through attitude, subjective norms, and perceived behaviour control. However, beliefs can also have direct influence on one's behaviour intention (Fishbein & Ajzen, 1975). Jin, Zhang, Ma, and Connaughton (2011) conducted a study using the theory of reasoned action and found that attitudes mediated the relationships between environmental beliefs/perceptions and intentions to support the Olympic Games. Similarly, Jin et al. (2011) applied TPB to predict college students' intention to donate to GSI, and discovered that attitude served as a full mediator on the correlation between behavioral beliefs and intention to donate, and that subjective norms fully mediated the relationship between normative beliefs and donation intention. Based on the theoretical and empirical support, the following hypotheses were developed:

*H<sub>7</sub> Attitudes would mediate the relationship between behavioural beliefs and athletic donors' intentions to donate to GSI.*

*H<sub>8</sub> Subjective norms would mediate the relationship between normative beliefs and athletic donors' intentions to donate to GSI.*

*H<sub>9</sub> Perceived behaviour control would mediate the relationship between control beliefs and athletic donors' intentions to donate to GSI.*

### **Recognition**

Recognition, defined as "a public expression of appreciation given by a group to individuals who undertake desired behaviours" (p. 4), is a strategy often used by charitable and nonprofit organizations to recruit and sustain donors and volunteers (Fisher & Ackerman, 1998). For instance, to recognize the contributions of those who helped, dinners and special events are often used by the American Red Cross, American Legion, YMCA, and United Way. According to the need hierarchy theory, a person has five levels of basic needs: (a) physiological needs, (b) security needs, (c) needs of love and belongingness, (d) needs for esteem, and (e) needs for self-actualization (Maslow, 1943). Laitinen (2009) pointed out that the need for recognition is firmly rooted in human nature, which is related to all of the aforementioned needs except the first one. Honneth (2001) and Laitinen (2009) argued that certain kinds of recognition (respect, esteem, and love) are necessary for developing and sustaining certain positive self-relationships such as self-esteem and self-confidence. Recognition also affects one's motivation by promising positive attention from others and by affecting one's sense of performance quality (Laitinen, 2009). Considering the importance of recognition in meeting personal need and nurturing charity giving, the influence of beliefs and attitudes toward being recognized as a green athletic donor on giving intentions toward GSI was examined in this study. Based on the TPB, the concept of recognition, and previous research findings, the following hypotheses were tested in this study:

*H<sub>10</sub> Beliefs of the consequences of being recognized as green athletic donors would be positively related to athletic donors' attitudes toward being recognized as green athletic donors.*

*H<sub>11</sub> Attitudes toward being recognized as green athletic donors would be positively related to athletic donors' intentions to donate to GSI.*

*H<sub>12</sub> Recognition attitudes would mediate the relationship between recognition beliefs and athletic donors' intentions to donate to GSI.*

## **METHOD**

### **Procedure and Participants**

To request assistance with data collection, emails were sent to four collegiate athletic departments. One athletic department of a major public university in a city located in the southeastern region of the U.S. granted the researchers with the permission to conduct an e-mail survey of its athletic donors. The city has an office of sustainability to institute and evaluate best ecological practices, focusing on such areas as parks and green space, lighting and building efficiency, green buildings, water conservation, and recycling. Particularly, the city has passed an ordinance which requiring all new city construction and major renovations to be Silver-LEED certified (Sustainability Initiatives, 2014). The participating university is committed to an environmental management system, particularly emphasizing renewable energy and environmental science research. Its environmental dedication contributed to the founding of an academic center for sustainability and sustainability coordinator, and an environmental programs advisory committee in charge of implementing the university's environmental policy. In order to get students involved, all graduates enrolled in the university are required to take a four-credit environmental course (The Princeton Review, 2014). Moreover, about 81% of the university's new construction in the past three years were LEED certified (The Princeton Review, 2014). The students' recreation center of this university received three Green Globes, a green building assessment program operated by the Green Building Initiatives, due to the efforts to consume less energy, conserve natural resources, and emit fewer pollutants. Compared to the university-wide environmental efforts, its athletic department showed less dedication to sustainability. Almost no information related to environmental protection and conservation was presented on its official athletic website. In particular, none of the athletic program's facilities achieved LEED certification or other equivalent recognitions.

After obtaining the approval, emails were sent to athletic donors, which explained the purpose, perceived significance, and potential contributions of the research. The emails were followed by an online survey link developed with the Qualtrics program. A total of 899 donors were contacted and 153 responded. After deleting 39 individuals with substantial missing values, 114 respondents were retained and included for the data analyses, resulting in a response rate of 12.7%. Based on a comprehensive review of procedures used to decide regression sample size, Green (1991) suggested  $N > 50 + 8m$  ( $m$  represents the number of independent variables) for testing the multiple regression and  $N > 104 + m$  for examining individual predictors. In addition, Harris (1985) suggested that a minimum of ten participants per predictor variable is appropriate for a regression analysis with six or more predictors. As the present study contained eight independent variables in the multiple regression analyses, the minimum sample size should be 114 according to Green's (1991) or 80 based on Harris's (1985) recommendations, respectively. Thus, the sample of 114 participants was considered appropriate for this study although it was small and minimally meeting the sample size requirement. Moreover, given that collegiate athletic programs are usually not willing to cooperate in research investigations about their donors, it was quite difficult for the researchers of this study to get access to this special group. As a matter of fact, the sample acquired for the present study was deemed precious; regardless, the small sample size from merely one institution was a major limitation of this study.

The sample included 75.0% males and 25.0% females, with a mean age of 48.32. A majority of them were Caucasian (86.4%), Christian (74.7%), university alumni (60.7%), married (76.9%), and had no dependents in the household (75.9%). Many (64.2%) had annual household incomes equal to or higher than \$100,000. A majority of them had given an annual donation below \$500 (56.6%), 19.8% between \$500 and \$999, and 23.6% above \$1,000.

### **Measurement**

A questionnaire was formulated and posted on-line for the study. Brief descriptions of the green building definition and LEED certification were first provided before the main section of the questionnaire in an effort to ensure respondents would be fully aware of those key concepts related to this study. The main section of the questionnaire included the following major components: (a) behaviour beliefs, (b) normative beliefs, (c) control beliefs, (d) attitude, (e) subjective norm, (f) perceived behaviour control, and (g) behaviour intentions associated with donating to GSI. These constructs were measured with scales adapted from Jin et al.'s (2011) study, which had Cronbach's alpha coefficients equal to .93, .93, .70, .88, .94, .73, and .92, respectively. Jin et al. (2011) developed the items measuring these constructs by adopting items from previous studies such as Ajzen (1991) and Han et al. (2010). Additionally, recognition beliefs were measured by asking respondents to rate four statements such as "Donating to GSI would enable me to be socially recognized as green donor" and ".....show the public of my desire and ability to support college team's environmental program." Either a Likert type 7-point scale or a semantic differential 7-point scale was used for measuring recognition (beliefs and attitude) and TPB constructs. For sample description purposes, demographic information was also included.

### **RESULTS**

Procedures in SPSS 22.0 were carried out to conduct statistical analyses. Descriptive statistics for recognition, and TPB constructs are presented in Table 1. Cronbach Alpha coefficients ranged from .87 to .98 for donation beliefs, recognition beliefs, normative beliefs, control beliefs, attitude toward donating, attitude toward recognition, social norm, and behaviour intentions, indicating that all of these eight factors were internally consistent and reliable (Cronbach, 1951). Alpha coefficients for perceived behaviour control were .67, closely approaching the cut-off values of .70 (Nunnally & Bernstein, 1994). Both skewness and kurtosis values for these factors above were well within the acceptable threshold of  $\pm 3.0$  (Chou & Bentler, 1995).

The mean scores for donation beliefs ( $M = 5.05$ ,  $SD = 1.31$ ), recognition beliefs ( $M = 4.57$ ,  $SD = 1.51$ ), donation attitude ( $M = 4.95$ ,  $SD = 1.31$ ), and recognition attitude ( $M = 4.70$ ,  $SD = 1.31$ ) indicated that respondents had positive beliefs and attitudes toward both donating to the athletic program's GSI and being recognized as green athletic donors. The mean score for control beliefs ( $M = 4.73$ ,  $SD = 1.28$ ) and perceived behaviour control ( $M = 4.67$ ,  $SD = 1.14$ ) demonstrated that respondents believed in the possession of requisite resources and opportunities to carry out the donation behaviour, and having personal control of donating to GSI. However, they believed that their important referent individuals would somewhat disapprove of them giving to GSI and they perceived social pressure not to carry out the behaviour, indicated by the mean score for normative beliefs ( $M = 3.53$ ,  $SD = 1.12$ ) and social norm ( $M = 3.69$ ,  $SD = 1.32$ ) correspondingly. The mean score of behaviour intention ( $M = 3.91$ ,  $SD = 1.56$ ) showed that the respondents did not have a tendency to donate or not to donate to GSI in the future.

T-tests and one way ANOVA tests were conducted to explore possible group differences based on diverse demographic groups. T-tests showed that male and female groups were significantly ( $p < .05$ ) different in donation intention, donation attitude, recognition attitude, donation beliefs, recognition beliefs, and normative beliefs, but not in control beliefs, social norm, and perceived behaviour control (see Table 2).

**Table 1:** Descriptive Statistics for All Factors

<i>Factor</i>	<i>No. of items</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>α</i>
DB	6	5.05	1.31	-.841	.760	.94
RB	4	4.57	1.51	-.606	-.175	.93
NB	3	3.53	1.12	-.450	.885	.89
CB	3	4.73	1.28	.055	-.848	.88
DA	6	4.95	1.31	-.389	-.191	.94
RA	6	4.70	1.31	-.209	.061	.95
SN	3	3.69	1.32	-.068	.509	.95
PBC	3	4.67	1.14	-.046	-.192	.67
BI	3	3.91	1.56	-.494	-.303	.98

Note: Donation Beliefs (DB); Recognition Beliefs (RB); Normative Beliefs (NB); Control Beliefs (CB); Donation Attitude (DA); Recognition Attitude (RA), Social Norm (SN); Perceived Behaviour Control (PBC); Behaviour Intention (BI).

The female group had positive donation intention ( $M = 4.64$ ,  $SD = 1.11$ ), while the male group showed slightly negative donation intention ( $M = 3.70$ ,  $SD = 1.61$ ). Compared to the negative normative beliefs of the male group ( $M = 3.42$ ,  $SD = 1.13$ ), the female group held close to neutral normative beliefs ( $M = 3.92$ ,  $SD = 1.11$ ). Both groups demonstrated positive donation beliefs, recognition beliefs, donation attitude, and recognition attitude; however, the female group had significantly stronger beliefs and attitudes than the male group. No significant ( $p > .05$ ) difference was found for other demographic variables.

Tests of zero-order correlation coefficients among all variables are presented in Table 3. Behaviour intention was significantly ( $p < .05$ ) associated with all other variables. It had the strongest correlation with social norm ( $r = .739$ ), followed by donation attitude ( $r = .666$ ), and normative beliefs ( $r = .602$ ). Control beliefs had significant ( $p < .05$ ) associations with donation attitude, social norm, and perceived behaviour control. Perceived behaviour control had a significant ( $p < .05$ ) correlation with social norm as well. Donation beliefs, recognition beliefs,

normative beliefs, donation attitude, recognition attitude, and social norm were all significantly ( $p < .05$ ) correlated with each other.

**Table 2:** T-tests based on Gender

Factor	Gender	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
DB	Male	4.79	1.35	-4.95	.000
	Female	5.85	0.81		
RB	Male	4.30	1.55	-3.87	.000
	Female	5.35	1.11		
NB	Male	3.42	1.13	-2.17	.035
	Female	3.92	1.02		
CB	Male	4.72	1.36	-.14	.889
	Female	4.76	1.10		
DA	Male	4.75	1.33	-3.18	.002
	Female	5.64	1.03		
RA	Male	4.47	1.32	-3.47	.001
	Female	5.43	1.07		
SN	Male	3.59	1.31	-1.84	.069
	Female	4.11	1.25		
PBC	Male	4.77	1.19	1.40	.165
	Female	4.42	1.00		
BI	Male	3.70	1.61	-3.43	.001
	Female	4.64	1.11		

Note: Donation Beliefs (DB); Recognition Beliefs (RB); Normative Beliefs (NB); Control Beliefs (CB); Donation Attitude (DA); Recognition Attitude (RA), Social Norm (SN); Perceived Behaviour Control (PBC); Behaviour Intention (BI).

Hierarchical regression analyses were conducted by following the OLS procedures to examine the sequential relationships among the ten variables. Baron and Kenny (1986) suggested that to establish a sequential/mediating effect that a variable has on the relationship between a predicting variable and a dependent variable, four elements are required: (a) the predicting variable is correlated with the dependent variable; (b) the predicting variable is correlated with the mediating variable; (c) the mediating variable is correlated with the dependent variables after controlling for the effect of the predicting variable; and (d) correlation between the predicting and the dependent variables is no longer significant (for full mediation) or reduced in strength (for partial mediation) after controlling for the effect of the mediating variable.

In this study, donation attitude, recognition attitude, social norm and perceived behaviour control were tested as potential mediators for the relationships of the beliefs constructs to intentions toward donating to GSI. These four factors were first entered into the hierarchical regression analysis as Model 1 (Table 4). Social norm and donation attitude were found to be significantly ( $p < .05$ ) predictive of behaviour intention, explaining a total of 64.4% variance. These were consistent with the zero-order correlation coefficients. However, after controlling for social norm and donation attitude, perceived behaviour control and recognition attitude were no longer significantly ( $p > .05$ ) related to the intention factor, which contradicted the zero-order correlation coefficients, where perceived behaviour control was significantly ( $p < .05$ ) associated with social norm and behaviour intention, and social norm was significantly ( $p < .05$ ) related to behaviour intention.

**Table 3: Zero-order Correlation among Factors**

Factor	1	2	3	4	5	6	7	8	9
1 DB	1.00								
2 RB	.876**	1.00							
3 NB	.376**	.418**	1.00						
4 CB	.094	-.005	.143	1.00					
5 DA	.722**	.652**	.530**	.222*	1.00				
6 RA	.708**	.751**	.480**	.041	.770**	1.00			
7 SN	.405**	.446**	.725**	.235*	.607**	.505**	1.00		
8 PBC	-.043	-.109	.150	.675**	.087	-.044	.331**	1.00	
9 BI	.443**	.424**	.602**	.293**	.666**	.455**	.739**	.272**	1.00

Note: \* Correlation is significant at the .05 level (2-tailed). \*\* Correlation is significant at the .01 level (2-tailed). Donation Beliefs (DB); Recognition Beliefs (RB); Normative Beliefs (NB); Control Beliefs (CB); Donation Attitude (DA); Recognition Attitude (RA), Social Norm (SN); Perceived Behaviour Control (PBC); Behaviour Intention (BI).

Supported by Baron and Kenny's (1986) principle, these results suggested that social norm fully mediated the relationship between perceived behaviour control and behaviour intention. Following the same logic, the findings suggested that both social norm and donation attitude mediated the relationship between recognition attitude and behaviour intention.

After partialling out the effects in Model 1, donation beliefs, recognition beliefs, normative beliefs, and control beliefs were entered in the analysis. The total variance explained slightly increased by 1%, which was not statistically significant ( $\Delta F = .697, p > .05$ ). Compared to the zero-order correlation coefficients, these five factors were no longer predictive of behaviour intention. As suggested by Baron and Kenny (1986), after controlling for the effect of the mediators, the

impact of the predictors on the dependent variables would be no longer significant or reduced in strength in a situation of full or partial mediation. Thus, these findings indicated that social norm and donation attitude had fully mediated the effects of donation beliefs, recognition beliefs, normative beliefs, and control beliefs; whereas, perceived behaviour control and recognition attitude had no mediating effects. The resultant relationships are depicted in Figure 1.

### DISCUSSION

The current study examined athletic donors' giving intentions toward GSI in a collegiate athletic program by mainly applying the TPB. Findings showed that respondents had positive donation beliefs, recognition beliefs, and control beliefs relating to GSI donation. That is, respondents had certain level of confidence in positive outcomes resulted from donating to GSI and green donor

**Table 4:** Hierarchical Regression Examining the Impact of Recognition, Beliefs, Attitudes, Social Norm and Norm and Perceived Behaviour Control to Behavioural Intentions Associated with Donating to GSI

Variable	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>SEE</i>	$\Delta F$	$\beta$	<i>t</i>
Model 1	.803	.644	.644	.953	47.563**		
DA						.486	4.874**
RA						-.179	-1.900
SN						.520	6.538**
PBC						.052	.807
Model 2	.809	.654	.010	.958	.697		
DB						-.023	-.168
RB						.063	.453
NB						.114	1.312
CB						.069	.835
DA						.454	3.927**
RA						-.207	-1.908
SN						.447	4.450**
PBC						.020	.229

Note: \*\* significant at the .01 level (2-tailed). Donation Beliefs (DB); Recognition Beliefs (RB); Normative Beliefs (NB); Control Beliefs (CB); Donation Attitude (DA); Recognition Attitude (RA), Social Norm (SN); Perceived Behaviour Control (PBC); Behaviour Intention (BI).

recognition, and they also showed confidence in their control over the donation behaviour. However, respondents overall had negative normative beliefs about donating to GSI. This may be explained by the lack of information indicating environmental efforts of the athletic department on its website. Consequently, respondents may assume that the athletic department had not taken any action to benefit the environment and did not truly care about environmental issues. In that case, respondents may not trust that the genuine motive to implement green stadium initiatives was to protect the environment.

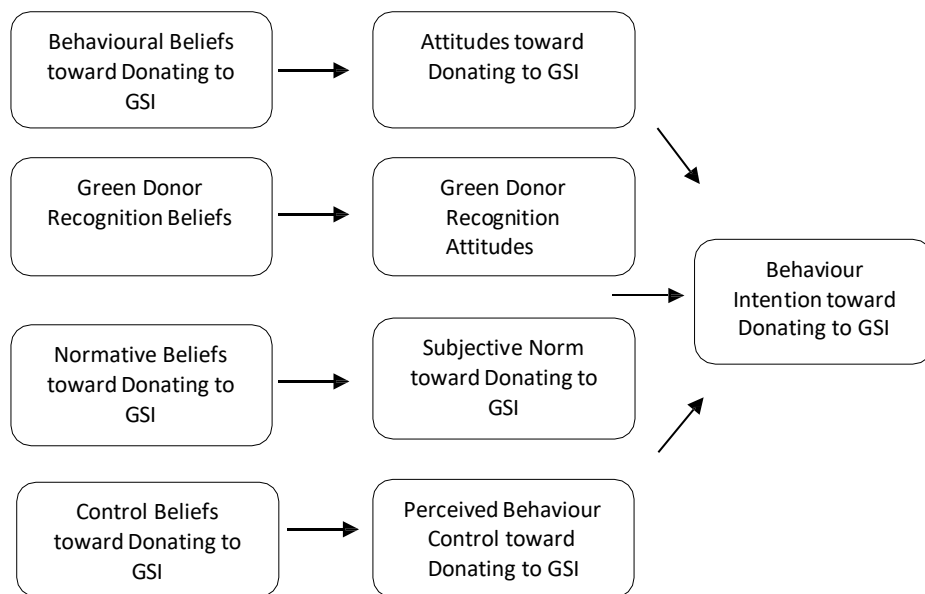


Figure 1: Illustrative Model for the Extended Theory of Planned Behaviour

As indicated by Baier (1986), trust is based on background beliefs, evidence, and experience. Rational trust contains a trusted party's motivation and competence (ability to do what's needed) (Baier, 1986). Moreover, research regarding companies' corporate social responsibility (CSR) suggested that consumers support CSR motives perceived as values driven and strategic, while oppose motives considered as stakeholder driven or egoistic (Ellen, Webb and Mohr, 2006). Thus, based on the lackness of evidence showing past environmental behaviours in the athletic department, respondents may be suspicious about its true motive of performing GSI. If respondents believed that their referent groups would share and support the similar thoughts, then donating to GSI would not be favored by their referent group, which led to the negative normative beliefs toward the action.

This study revealed that females had positive intentions to donate to GSI, while males possessed negative donation intentions. Similarly, compared to males, females held stronger donation beliefs, recognition beliefs, normative beliefs, donation attitude, and recognition attitude associated with donating to GSI. These findings may be explained by women's advancing economic status and growing interest in college sports as well as environmental conservation. The U.S. Census Bureau (2013) reported that the number of full-time female workers increased from 14.8 million in 1967 to 43.2 million in 2009. Their median earning rose from \$20,600 in 1960 to \$37,100 in 2011 (U.S. Census Bureau, 2013). In addition, the total number of women participated in college athletics reached to 200,000 in 2012, which was more than twelve times the number in early 1970s (Acosta & Carpenter, 2012). Among 103 million adult college football fans, 39% are female (National Football Foundation, 2013). Moreover, NCAA tournament had the second highest share of women audience in 2013, compared to other professional and amateur sports in U.S. (Thompson, 2014). Studies focusing on gender and college athletic fundraising revealed that females are more influenced by philanthropic concerns (Staurowsky, 1996; Verner, 1996), and less influenced by the social and tangible benefits related to athletic gifts (Staurowsky, 1996; Tsiotsou, 2006). Females were also found to be more likely than males to give to environmental organizations (Israel, 2007). Therefore, female donors should be considered as an attractive potential market segment for GSI fundraising of intercollegiate athletic programs.

Findings showed that donation beliefs, recognition beliefs, normative beliefs, and control beliefs had positive impacts on donation attitude, recognition attitude, social norm, and perceived behaviour control associated with donating to GSI, respectively. The findings confirmed the relationships among these factors as indicated by the TPB. They are also supported by the findings of other studies adopting TPB as the primary theoretical framework, such as a study on customer intentions of visiting a green hotel (Han et al., 2010). Consistent with the TPB, findings derived from the hierarchical regression analyses in this study showed that donation attitude and social norm were predictive of behaviour intention. The TPB indicates that an individual's positive assessment of performing a behaviour and a high level of perceived social pressure from significant others toward conducting the behaviour would result in greater tendency to enact that behaviour. Similarly, research findings of this nature was also revealed in previous studies associated with waste compositing (Mannetti et al., 2004) and the 3Rs (Low et al., 2011).

In this study, social norm and donation attitude together explained 64.4% of the variance in donor intentions to give to GSI, more than twice as much as the variance (29.3%) explained by these two constructs in Jin et al.'s (2011) study. This is in line with Calder, Phillips, and Tybout's (1981) argument that using a "... maximally homogenous sample" (p. 199) in a theory application research would be more rigorous. Athletic donors involved in the current study were deemed less diverse than the student sample in Jin et al.'s study concerning their thoughts and actions related to athletic donation in general. Thus, it is reasonable to believe that donation attitude and social norm had a stronger power in predicting donor behaviour intention.

It is also worth noting that donation attitude ( $\beta = .454$ ) and social norm ( $\beta = .447$ ) had about the same level of influence on behaviour intention, which was different from Jin et al.'s (2011) finding that attitude toward donating to GSI ( $\beta = .260$ ) was of a greater level of influence on donor intentions than social norm ( $\beta = .206$ ). This may be explained by the differences in the research samples, particularly in gender and marital status compositions. Jin et al.'s (2011) study

involved 46.1% male and 90% single, while the current study had 75% male and 76.9% married. Veldhuizen, Ferguson, Kort, Donders, and Atsma's (2011) study on blood donation revealed that social norm only had significant impact on male donors, and suggested that when compared with male donors, female donors may be less affected by the perceived social pressure of significant others to perform or not to perform the target behaviour. In addition, significant financial decisions usually involve other people (e.g., family members). Regardless of an individual's personal desire to donate, it is often up to one's significant other(s) to offer final consent. This is particularly true for the majority of the married respondents included in the current study. Thus, the relative higher influence of social norm in this study may be due to the married males who were the dominant part of the sample.

Consistent with Jin et al.'s (2011) study, the current study revealed that perceived behaviour control had no influence on behaviour intention after controlling for donation attitude and social norm, which however was conflicting with the TPB. As Ajzen and Fishbein (1980) demonstrated, perceived behaviour control was added to the TPB to explain variables beyond one's control that may impact his/her behaviour intentions. Yet, for a behaviour under complete control, perceived behaviour control becomes largely irrelevant in predicting the behaviour (Ajzen, 1991). Jin et al. (2011) argued that donating to GSI could be considered a high volitional behaviour because no minimal amount was required when making a decision to donate. However, factors other than financial resources may play as undetected inhibitors on performing the behaviour. In this study, the mean score for perceived behaviour control was slightly above 4.0 and substantially lower than 7.0, suggesting that donating to GSI was not perceived as a high volitional behaviour. To understand the role of perceived behaviour control, an interesting finding was that social norm fully mediated the relationship between perceived behaviour control and behaviour intention. According to Frazier, Tix, and Barron (2004), a mediator explains why or how its predictor leads to its outcome variable. In this regard, the finding implied that an individual's high perceived behaviour control is likely to help him/her perceive favorable social support from significant others to engage in the behaviour of donating to GSI. It has been argued that perceived behaviour control may be equivalent with one's confidence in the ability to perform the behaviour (self-efficacy) (Ajzen, 1991). It is possible that people with high self-confidence are more likely to observe and interpret supportive reactions from their social groups.

The findings of this study indicated that recognition attitude did not influence behaviour intention. Previous research suggested that high consistency among measures of attitude, social norm, perceived behaviour control, and behaviour intention concerning action, target, context, and time is critical to guarantee high correlations among the TPB variables (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Low consistency would likely lead to low correlations. In this study, recognition attitude measured respondents' attitudes toward being recognized as green athletic donors, which was a different action, target, and context from the targeted behaviour of intention; thus, it is reasonable that recognition attitude did not explain additional variance in behaviour intention toward giving to GSI. Another possible reason may be that the football program of the institution under investigation was not highly competitive; hence, team identification could be low and recognition relating to this program may not be deemed important.

The study showed that respondents did not have a tendency to either donate to GSI or not donate to GSI, which was shared by Jin et al.'s (2011) study. Both samples were not sure about the future donation to GSI, even though the donor sample had much higher annual household income (i.e., 64.2% had \$100,000 or more in the current study) when compared with the student sample (i.e., 54% were below \$20,000). The reason may be that both studies were conducted during an economic recession, and people became more cautious about their financial resources when the future of economy was uncertain. Another possible reason in the current study may be that respondents lacked sufficient information about the motives, operations, and potential environmental impacts of green stadiums to make an educated decision.

In brief, this study verified the previous argument that the predicting power of attitude, social norm, and perceived behaviour control are not necessarily equal, and their effects might vary depending on the behaviour and population (Ajzen, 1991). Existing research showed that some behaviour intentions are fully determined by attitude (Albarracín, McNatt, Klein, Ho, Mitchell, & Kumkale, 2003), while others are impacted by subjective norm (Durantini, Albarracín, Mitchell, Earl, & Gillette, 2006), or perceived behaviour control (Yzer, 2007). Therefore, it is possible that only social norm and attitude may directly predict behaviour intentions. In addition, this study showed that perceived behaviour control indirectly influenced behaviour intentions via social norm. Thus, this study suggested that a revised TPB model (see Figure 2) could provide a better explanation on the influence of beliefs, attitude, and social norms on behaviour intentions to donate to GSI.

#### **LIMITATIONS AND FUTURE STUDIES**

While the findings in this study were relatively robust, the current study had several limitations that offer opportunities for future research. First, this study involved a small sample of donors associated with one collegiate athletic program. The current sample was predominantly Caucasian, male, married, university alumnus, educated, and in the \$100,000 or higher household income bracket. The representativeness of the sample was not clear due to a lack of access to demographic information about the population. Even so, the current sample shared many similar characteristics with the sample used in Allen's (2008) study on intercollegiate athletic donors' giving motives, which consisted of 84% male, 95% white, 78% university alumni, 92% with a college or graduate degree, and 65% with \$100,000 or more household income. Therefore, it is highly likely that the sample in this study was actually representative of the athletic donor population for the university under investigation and even the general characteristics of athletic donors across institutions. Thus, with some caution, there is the potential that the findings of the study could be generalized to a broader population. However, to ensure the representativeness of the sample and the generalizability of the findings, it is highly recommended that future studies be conducted with a larger sample from multiple university athletic programs that already have an emphasis on green stadium initiatives.

With a much larger sample, future studies may examine the structure relationships among recognition, and TPB factors associated with donating to GSI. Structural equation modeling would help reduce inferential inaccuracy caused by measurement errors. In the present study, perceived behaviour control ( $\alpha = .67$ ) did not obtain optimal reliability score. However, it was slightly higher than the average alpha coefficient (.65) reported in a meta-analysis of 90 studies measuring perceived behaviour control in the context of TPB (Cheung & Chan, 2000).

Future studies could try to explore additional factors that may influence an individual's behaviour control other than financial resources to improve the scale reliability. In addition, the design of this investigation was not of a longitudinal nature; as a result, the predictive role of behaviour intentions to actual donating behaviour could not be examined. Furthermore, other concepts and factors relevant to explaining donor behaviours and pro-social behaviours identified in previous studies (e.g., personal norm) should be incorporated in future studies to better understand athletic donor giving intentions to an environmental cause, especially GSI.

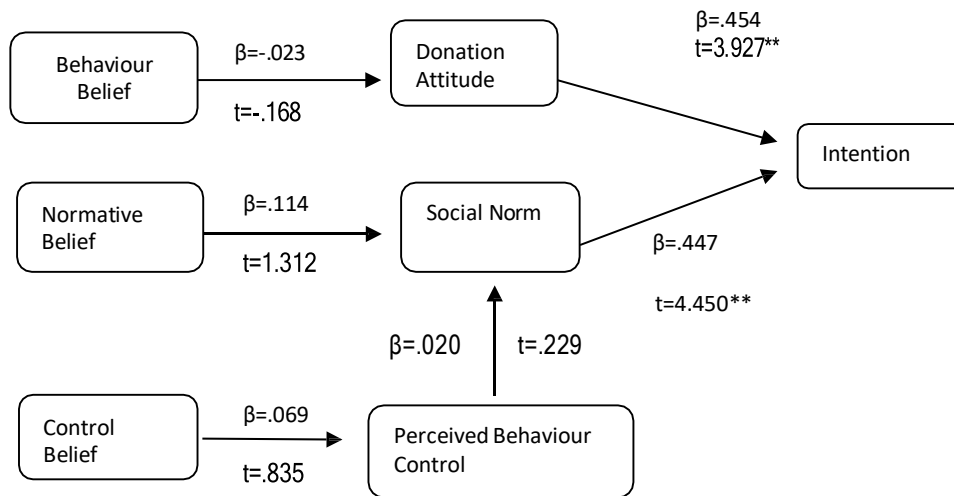


Figure 2: Theoretical Model Tested  
 \*\* Significant at the .01 level (2-tailed)

### CONCLUSION

Prior to this study, there was very little understanding about college athletic donors' reactions toward donating to an eco-friendly cause of collegiate athletic programs, particularly the GSI. This study provided an in-depth understanding of college athletic donors' behavioural intention toward giving to GSI and its important determinants via using the TPB. The present study suggested that both donation attitude and social norm were strongly and positively associated with behaviour intention toward giving to GSI, and that donation attitude and social norm were determined by one's evaluation of behaviour outcomes (donation beliefs) and perceived approval or disapproval of performing the behaviour from important referents (normative beliefs) respectively. Thus, in order to strengthen current athletic donors' intention to give to GSI, actions should be taken to maintain or increase donors' positive assessment of the behaviour and enhance the support from their important others on performing eco-friendly behaviours, especially donating to GSI.

Green stadium is a relatively new initiative in both professional and collegiate sport settings. It was not until 2008, when the National Park was the first professional sport venue in the U. S. to achieve LEED certification (NRDC, 2013), and 2007, when Penn State's Medlar Field was one of the earliest intercollegiate sport stadiums in the country to receive the LEED Certification (Penn State, 2007). Since GSI is still a new idea for college athletic donors, persuasive communications

that may modify or form one's cognitive or knowledge components could be an effective way to achieve the objectives (Zimbardo, Ebbesen, & Maslach, 1977). According to Zimbardo et al. (1977), messages used to change one's cognition must be noticed, understood, accepted, and retained long enough to become effective and the source as well as the characteristics of the message would influence the effectiveness of the communication. Therefore, fundraisers of a collegiate green stadium should provide both donors and their important referents with easy and frequent access to comprehensible messages demonstrating the athletic department's environmental commitment via reliable sources through TV, Internet, radio, magazine, newspaper, and social media outlets. Moreover, athletic departments should not only talk about their environmental dedications but also put their intentions to practice by employing and promoting diverse environmental programs such as recycling, energy efficiency measures, carbon neutral games, and education campaign. Sufficient information should be conveyed to promote the department's environmental efforts, particularly the GSI program, such as why the program is important, how much it may cost as well as save, how donations may be spent, and what personal benefits donors may get.

Social exchange theory also suggested that when the perceived benefits outweigh the cost, an individual would have positive attitudes toward the behaviour (Ap, 1992). Thus, GSI fundraisers should inform donors and their significant others of the advantages and disadvantages of donating to GSI to allow them to evaluate the possible consequences of the behaviour. For instance, GSI fundraisers should provide reliable information about existing environmental problems and how donors and their children's life quality could be deteriorated resulting from various environmental issues. Information on environmental advantages of green buildings over traditional buildings should also be delivered. In addition, fundraisers should communicate the potential educational and promotional influence that collegiate green stadiums may have on spectators, TV viewers, players, teams, colleges, and even the whole society in terms of environmental protection and conservation. Fundraisers should also actively find ways to increase environmental concerns that potentially contribute to positive attitudes and social norms toward donating to GSI and building their support toward a green donation in the long-term.

Finally, donor segmentation may be another important strategy to employ in order to more efficiently use the limited human and financial resources in the athletic department. Previous research found that many major donors want to preserve their most significant gift to a nonathletic cause or organization to provide a more meaningful impact (Stinson & Howard, 2010). Therefore, this kind of major donors should first be identified and become the key target of aforementioned educational and promotional programs on GSI. The next step is to classify donors who also give small gifts to non-profit organizations, especially those emphasizing an environmental cause. Since this group has shown a need for philanthropic gifts, the availability and promising future of GSI program should be provided. For donors who are mainly commercially-motivated, plans should be developed to transform some to philanthropically-motivated giving. In addition, the current study found that female athletic donors were more likely to give to GSI than male donors. Therefore, female donors should be considered as a prioritized market segment with high potential for GSI fundraising of collegiate athletic programs. It is necessary to prioritize resources toward attracting female donors, particularly those donate for altruistic reasons, and are interested in college sport and environmental protection.

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*The International Journal of Event Management Research*  
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ISSN 1838-0681