

Influence of spectator motivation factors on the sense of community in college sports

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Abstract:

This study was attempted to understand the effects of perceived spectator motivation factors on the college sense of community. The main purpose of this study is to explore distinct impact of the spectator motivation factors on the sense of community in college sport. A secondary aim is to identify differences in motives between male and female fans. The study examined the effects of gender differences on seven factors of spectator motivation. Data were collected from a purposive sample of 246 American students at a major public university in the southern part of the United States. The result of the multiple regression test indicated that the seven motivation factors predicted 30 percent of the variance in college sense of community. This study found that the knowledge, social interaction, and vicarious achievement factor had a positive influence on college sense of community. Especially, the social interaction factor was influenced on the sense of community, so sport marketers and athletic directors strive to increase the social interaction value of college sport games. Another finding from this study is that male and female spectators had different perceptions about spectator motivation. For male spectators, the acquisition of knowledge and vicarious achievement factors had a significantly greater impact than for female spectators. The male spectators may consider team wins and team plays as a significant factor for attending college sporting events. From standpoint of practical, the findings of this research can provide important spectator motivation factors and various marketing strategies for athletic directors and sport marketers in college sporting events.

Key Words: sport fan motivation, college sense of community, college sporting event, sport consumer behavior

Introduction

College sports has been found to contribute to community and society (Clopton, 2010). In fact, intercollegiate sport teams play a significant role in increasing academic success (Schurr, Wittig, Ruble, & Henriksen, 1993) and sense of community (Clopton, 2007, 2008, 2009). Attending college sporting events emerges as a social phenomenon in college life. Game attendance has a positive influence on the sense of community in university setting (Warner, Shapiro, Dixon, Ridinger, & Harrison, 2011). Wann and Robison (2002) found that college students who were interested in their college sports teams were more likely to have positive perception of and social integration into the university. In order to increase students' interest in college sports teams, a better understanding of why students would like to attend college sports events is necessary.

Over the past decade, numerous studies have investigated spectator motivations as predictors of sports consumption behaviors embracing media consumption (Andrew, Kim, O'Neal, Green, & James, 2009; Byon, Cottingham & Carroll, 2010; Kim, Andrew, & Greenwell, 2009), and game attendance (Funk, Filo, Beaton, & Pritchard, 2009; Mahony, Nakazawa, Funk, James, & Gladden, 2002). Researchers have also investigated spectator motivations in terms of intercollegiate athletics (Kwon, & Trail, 2001; Trail, Robinson, Dick & Gillentine, 2003; Woo, Trail, Kwon & Anderson, 2009). In addition, scholars have explained the benefits and consequences of a sense of community in a variety of social settings. In particular, Clopton (2008) found that increased fan identification was associated with building a sense of community for college students. A strong sense of community has influence on better academic performance among college students because it has been connected with reduced incidence of student burnout (McCarthy, Pretty, & Catano, 1990; Warner et al, 2011). Although sport is frequently applied to build a sense of community, few researchers examined whether attending sporting events triggers a sense of community in college sports.

Furthermore, in the field of sport management, many scholars have examined the spectator motivation within the context of professional and college sporting events for understanding sport consumption behaviors. In higher education, intercollegiate sports have been consistently considered for college students to increase social group membership. Thus, effects of intercollegiate athletics program have been investigated with a variety of social integration theory such as involvement theory, team identification, and sense of community. Although the

researchers have investigated the two constructs of the spectator motivation and the sense of community in the spectators as college team sports (e.g., baseball, basketball, and football, hockey, and soccer), there is little research on the relationship between the spectator motivation and the sense of community in terms of college sporting events. Therefore, the main purpose of this study is to explore distinct impact of the spectator motivation factors on the sense of community in college sport. A secondary aim is to identify differences in motives between male and female fans. This study could contribute to body of knowledge on the spectator motivation factors and the sense of community within attending collegiate sports context in terms of higher education.

Theoretical Background

Spectator motivation

Psychologists, such as Abraham Maslow, Henry Murray, and David McClelland, have explained human motivation based on physiological, psychological, and social needs (Mullin, Hardy, & Sutton, 2007). Trail, Anderson, and Fink (2003) indicated that sport spectators attend games to satisfy the social and psychological needs of human motivation. It is essential to understand spectator motivation in sport marketing, so they can suggest: (a) to improve communications between marketers and their consumers (Mullin et al., 2007), and (b) to involve more sport consumers in the sport market.

Many researchers have examined spectator motivation across various types of sports. Some researchers have examined spectator motivations to attend professional team sporting events (e.g., Funk, Mahony, Nakazawa, & Hirakawa 2001- Women's World Cup, James & Ross 2002-Professional Baseball). Other researchers have investigated sport type differences in sport fan motivation. James and Ross (2004) studied fan motivation for nonrevenue college sports (i.e., baseball, softball, and wrestling). The result indicated that consumers of the three college sports valued sport-related motives (i.e., entertainment, skill, drama, and team effort) more than motives related to self-definition (i.e., achievement, empathy, and team affiliation), and personal benefits (i.e., social interaction and family). Wann, Grieve, Zapalac, & Pease (2008) examined how fan motives are different across 13 different sports. They found that there were many significant motivational differences between different sport types and different target sports. Although previous researchers have focused on professional team sports and college sports when analyzing spectator motivation, recent research has examined spectator motivation for a specific sport such as mixed martial arts (Kim et al., 2008; Kim et al., 2009) and wheelchair rugby (Byon et al, 2010).

Some studies have explored fan motivation in a specific country. Lough and Kim (2004) examined the socio-motivations of spectators of the Women's Korean Basketball league (WKBL). They found that entertainment value was the most significant socio-motivation among WKBL spectators. Hong, McDonald, Yoon, and Fujimoto (2005) investigated Japanese baseball fans' motivation for their interest in the MLB because Japanese baseball players have the opportunities to play in the MLB. Hong et al., (2005) found three primary spectator motives (i.e., overall interest in baseball, interest in players, and quality of games) that Japanese fans held that led to emotional attachment and attitudinal or behavioral loyalty toward MLB. Won and Kitamura (2007) indicated that many Korean sport fans show enormous interest in the professional sports of the U.S. (e.g., MLB, NBA, and PGA). Furthermore, through their cross-national research, it was found that drama, achievement, and entertainment were the major motives of attendance for both Japanese and Korean League spectators. By exploring cross-cultural or cross-national differences in spectator motivation, Kwon and Trail (2001) found that the aesthetics motive was significantly different when comparing American and international student motivations to attend collegiate sport games. The authors asserted that recognizing cultural differences was essential for creating a successful marketing strategy. Won and Kitamura (2007) compared the motivations of South Korean and Japanese professional soccer league spectators and found that six (i.e., skill, drama, entertainment, player, achievement, and family) of nine motives were the main differences in attendance of soccer events between the two nationalities. Kim et al. (2009) indicated that spectator motivation factors (i.e., sport interest, vicarious achievement, aesthetic, national pride, and violence) in mixed martial arts events were significantly different between Korean spectators and American spectators.

Sense of Community

Sarason (1974) initially coined the phrase "psychological sense of community", and he defined "sense of community" is a group's overarching value. He also contended that "sense of community" was significant to all individuals across communities and contexts. McMillen and Chavis (1986) more concisely defined sense of community as "a process that stimulates opportunities for membership, for influence, for mutual needs to be met, and for shared emotional ties and support." (p.9). A number of researchers have examined sense of community in a variety of contexts such as workplaces, school settings, and community organizations.

In particular, many scholars in sport and higher education indicated that sport could increase sense of community among college students (e.g., chalip 2006, Glover & Bates, 2006; Tonts, 2005). Warner and colleagues (2011) have explored distinct impact of football on sense of community in college students. They found that students who attend more football games will have greater sense of community than those who do not participate in college sporting events. The result of this study indicated that students who have strong sense of community may be more likely to attend football games. Clopton (2010) examined relationship between athletic

participation, sense of community, and level of athletic competition. The finding suggested that participating in college sport offers to build sense of community in college life. Also, Clopton (2008) determined that that was relationship between a student's identification with university's sports teams and perceived sense of community on campus. The author asserted that team identification was a significant predictor of sense of community. As above mentioned, previous research for sense of community, attending college sports may foster sense of community. Furthermore, sense of community has been connected to positive student outcomes such as better academic performance and higher student retention.

Rh1: The spectator motivation factors contribute to the college sense of community.

Rh2: There are statistically significant differences in the factors of spectator motivation in terms of gender.

Methods

Participants

For this study, data were collected from a purposive sample of 246 American students at a major public university in the southern part of the United States. Participants in face-to-face self-administered techniques were utilized, and survey questionnaires were distributed in the seven classes on campus. After agreeing the participants to respond to the survey, the trained research surveyors explained the purpose of the study and instruction about the survey. The participants were asked to fill out the questionnaire about demographics, spectator motivation, and the college sense of community. In agreement with Institutional Review Board's (IRB) protocol was ensured. Of the total 246 students, 155 (63.3%) were male and 91 (37%) were female including 55 freshmen (22.4%), 95 sophomores (38.8%), 53 juniors (21.6%), and 43 seniors (17.2%). It took about 15 minutes for a participant to complete a survey

Measurement

In this study, the Motivation Scale for Sport Consumption (MSSC) by (Trail & James, 2001), the scale included 21 items used to measure spectator motivation. Seven factors were proposed in the MSSC: vicarious achievement, knowledge, aesthetics, drama, escape, physical skill, and social interaction. According to Trail et al. (2003) and Woo et al. (2009), the MSSC was used in various sports settings because reliability and validity for MSSC have been stable ($\alpha=.72$ to $.92$; AVE=.51 to $.83$). To measure the College Sense of Community Scale (CSCS), 6 items were adapted from Clopton (2008). The MSSC and the CSCS items were measured on a 5-point Likert -type scale ranging from "strongly disagree (1)" to "strongly agree (5)."

Data Analysis

In order to examine the research hypotheses, data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 23 and Analysis of Moment Structures (AMOS) version 23. A confirmatory factor analysis (CFA) was performed on the Motivation Scale for Sport Consumption (MSSC) and the College Sense of Community Scale. using AMOS 23 to evaluate the measurement models.

Following the suggestions of Kline (2015), several goodness of fit measures was adopted including: chi-square statistic (χ^2), root mean square error of approximation (RMSEA < 0.08), standardized root mean residual (SRMR < 0.09), and comparative fit index (CFI > 0.9). A Cronbach's alpha coefficient ($\alpha > 0.7$; Nunnally, 1994) and composite reliability (CR > 0.7, Anderson & Gerbing, 1988) were employed to examine reliability of the scales. For validity, Convergent validity was assessed by evaluating indicator loadings (> 0.5) and the average variance extracted (AVE> 0.5) values (Fornell & Lacker, 1981). In addition, discriminant validity was conducted by comparing AVE of each construct with squared interconstruct correlations (Fornell & Larcker, 1981). A multiple regression analysis was conducted to examine the relationship between the MSSC factors and the sense of community. Multivariate analysis of variance (MANOVA) was used to examine the effects of gender differences on spectator motivation factors. Also, univariate F-tests was provided additional support for the effects of gender differences on the seven factors of spectator motivation.

Results

Measurement Model

The psychometric properties of the measurement instruments were analyzed by a confirmatory factor analysis (CFA) using AMOS 23 software. In order to verify final measurement model, theoretical relevance, factor loadings and goodness-of-fit indices of the model were considered. Table 1 indicates that the estimates of exact, absolute, parsimonious, and incremental fit indicated confirmed a good model fit for the initial measurement model: Satorra-Bentler Chi square (S-B $\chi^2 = 585.7$. $P < .05$) was significant, and the ratio of S-B χ^2 statistic (i.e., $585.7/8296=1.97$, $p < .05$) was below the suggested cut-off value of 3 (Bollen, 1989). Furthermore, the RMSEA was .063. and SRMR was .061. These values were lower than the suggested cutoffs .08 and .10, respectively (Kline, 2015). The Comparative Fit Index (CFI) was .981, which this value was high the suggested cutoff of .090 (Kline, 2015). Accordingly, as results of model fit indices, the measurement model was an acceptable of fit for the data.

Table 1 Goodness of fit indices and χ^2 /df value for the measurement model

MODEL	RMSEA	CFI	SRMR	χ^2 /df
	.063	.981	.061	585.7/8296=1.97

Reliability and Validity

Reliability and validity assessments were performed through internal consistency using SPSS 23.0 and a confirmatory factor analysis using AMOS 23.0. Table 2 illustrated factor loadings, Cronbach’s alpha (α), the Composite Reliability (CR), and the Average Variance Extracted (AVE) index for the measurement model. For reliability, Cronbach’s alpha (α) values were ranged from 0.72 to 0.88, which were above the recommended cut-off criterion (Nunnally, 1994) CR values were ranged from 0.75 to 0.85, above the acceptable value of 0.7 (Anderson & Gerbing, 1988). In regard to convergent validity, all indicators loadings on each latent construct were greater than the suggested value of .70 (Kline, 2015). All AVE values were ranged from .51 to .61, which all exceed .50 as suggested by Fornell and Larcker (1981). In addition, all AVE values were greater than the squared interconstruct correlation estimates as suggested acceptable levels of discriminant validity (Fornell & Larcker, 1981). Consequently, based on evidence of supporting reliability and validity, the measurement model was retained without modifications.

Table 2 *Standardized factor loadings, reliability coefficients (λ), construct reliability (CR) and average variance extracted (AVE) for the measurement model.*

<i>Constructs / Items</i>	λ	α	CR	AVE
Acquisition of knowledge		0.72	0.77	0.53
I can increase my knowledge about the activity	0.732			
I can increase my understanding of the strategy by watching the game	0.733			
I can learn about the technical aspects by watching the game	0.621			
Escape		0.88	0.87	0.70
The game provides an escape from my day-to-day routine	0.831			
The game provides a distraction from my everyday activities	0.937			
The game provides a diversion from “life’s little problems” for me	0.776			
Aesthetic		0.77	0.80	0.59
I appreciate the beauty inherent in the game	0.529			
I enjoy the natural beauty in the game	0.773			
I enjoy the gracefulness associated with the game	0.913			
Physical Skill of the athletes		0.88	0.82	0.61
The superior skills are something I appreciate while watching the game	0.707			
I enjoy watching a well-executed performance	0.774			
I enjoy watching a skillful performance in the game	0.818			
Social Interaction		0.831	0.83	0.63
I enjoy interacting with other people when I watch a game	0.668			
I enjoy talking with other people when I watch a game	0.831			
I enjoy socializing with other people when I watch a game	0.868			
Vicarious Achievement		0.83	.84	.61
I feel a personal sense of achievement when the team does well	0.724			
I feel like I have won when the team wins	0.874			
I feel proud when the team plays well	0.776			
Drama		0.73	0.75	0.52
I enjoy the drama of close games	0.427			
I enjoy it when the outcome of the game is not decided until the very end	0.887			
I enjoy the uncertainty of close games	0.805			
College sense of community		0.79	0.85	0.51
There is a real sense of community at my college	0.496			
There is a strong feeling of togetherness on campus	0.485			
There is a sociable atmosphere at my college	0.572			
I feel very attached to my college	0.798			
I feel like I belong here at my college	0.644			
Students at my college feel they can get help if they are in trouble.	0.738			

Result of Multiple Regression Analysis

In order to test the first hypothesis, a correlation analysis was undertaken to examine significant relationships between spectator motivation factors with college sense of community. Also, multiple regression analysis was conducted to examine the predictive relationship between seven motivation factors and college sense of community. The result of correlation analysis revealed that statistically significant correlations existed between seven motivation factors and college sense of community. In the multiple regression analysis, the ENTER method for motivation factors as predictor variables was assessed. To check the assumption of multicollinearity, tolerance and Variance Inflation Factor (VIF) scores were measured on each variable. In this study, tolerance statistics ranged from 0.76 (Vicarious achievement) to 0.94 (Escape), and VIF score ranged from 1.01 (Physical skill) to 1.3 (Vicarious achievement), indicating that presence of multicollinearity was not among motivation factors as predictor variables. As shown in Table 3, the result of multiple regression indicated that the overall model was statistically significant $F(7, 238) = 14.893, p < .05$ and 30% of college sense of community was explained by the seven factors of motivation factors.

Table 3 Model Summary for the Motivation Factors on College Sense of Community

Model R ²	Adjusted R ²	df	F	Sig.
.305	.284	7	14.893	.000

In Table 4, the result of the coefficient from the multiple regressions reveals the influence of the seven motivation factors on college sense of community. The results of the model parameter indicated that the factors of vicarious achievement ($\beta = .397, p < .05$), social interaction ($\beta = .162, p < .05$), and knowledge ($\beta = .146, p < .05$) were statistically significant predictors of life satisfaction. However, the factors of escape aesthetic, drama and physical skill exerted the weak influence on the customer satisfaction.

Table 4 Regression Analysis of the Seven Motivation Factors on College Sense of Community

Variables	β	t	Sig.
Model			
Knowledge	.146	2.571	.011*
Escape	.028	.494	.622
Aesthetic	.067	.985	.379
Physical Skill	.077	1.409	.160
Social Interaction	.162	2.874	.004*
Vicarious Achievement	.397	6.442	.000*
Drama	.045	.826	.409

Note. *P<.05, a. Dependent Variable: college sense of community

Result of Multiple MANOVA

As shown in Table 5, MANOVA was used to examine the effects of gender differences on seven factors of spectator motivation. First, the test of the assumption of homogeneity of covariance matrices was statistically significant: Box's M = 31.94, $F [28, 126581.55] = 1.1, p = .323$, suggesting a likely violation of the assumption. Second, the results of the MANOVA indicated that the multivariate null hypothesis of equality of the means between the two gender groups regarding the areas of childhood play was rejected at the .05 level: Wilk's $\Lambda = .009, F (14, 476) = 327.45, p < .000$.

Table 5 Multivariate Analysis of Variance-gender differences

Effect	Wilk's Lambda	F	Hyp. df	Error df	P
1	.009	327.451	14	476	.000

As shown in Table 6, univariate F-tests provided additional support for the effects of gender differences on Seven factors of spectator motivation: Knowledge, $F (1, 244) = 4.312, p < .05$; Vicarious Achievement, $F (1, 244) = 17.021, p < .05$. However, there was no significant difference for the escape, aesthetic, physical skill, social interaction and drama factors. These results reveal that male was more affected by Knowledge and Vicarious Achievement.

Table 6 ANOVA of Motivation Factors by Gender

Source		SS	df	MS	F	P
Knowledge	Between Groups	2.219	1	2.119	4.312	.000*
	Within Groups	125.959	244	.515		
	Total	127.798	245			
Escape	Between Groups	.768	1	.768	.868	.352
	Within Groups	215.841	244	.885		
	Total	216.609	245			
Aesthetic	Between Groups	.418	1	.418	.633	.427
	Within Groups	161.075	244	.660		
	Total	161.493	245			
Physical Skill	Between Groups	.242	1	.242	.349	.555
	Within Groups	169.561	244	.695		
	Total	169.804	245			
Social Interaction	Between Groups	.673	1	.673	.861	.354
	Within Groups	190.830	244	.782		
	Total	191.504	245			
Vicarious Achievement	Between Groups	12.861	1	12.861	17.021	.000*
	Within Groups	184.371	244	.759		
	Total	197.233	245			
Drama	Between Groups	.121	1	.121	.176	.675
	Within Groups	168.023	244	.689		
	Total	168.145	245			

Discussion

The first research question examined the relationships between seven spectator motivation factors and college sense of community. The result of the multiple regression test indicated that the seven motivation factors predicted 28 percent of the variance in college sense of community. This study found that the knowledge, social interaction, and vicarious achievement factor had a positive influence on college sense of community. In the previous research, drama, achievement, and knowledge have been indicated to be predictors of sport identification, attendance, and media consumption (Andrew et al, 2009; Byon et al, 2010; Trail et al, 2003). In order to increase sense of community through attending sporting events, the knowledge factor is related to game strategy and the technical aspect of players that spectators wish to learn when they watch a game. Sport marketers could focus on diverse aspects of knowledge. For instance, providing pre-game events such as teaching baseball strategies or giving one-point lessons could be used by sport marketers. Although drama and physical skill were found to relate to college sense of community, these factors are not under the control of management. Furthermore, in this study, the social interaction factor was influenced on the sense of community, and it was highly correlated to sense of belong in previous research. Sport marketers and athletic directors strive to increase the social interaction value of college sport games. For example, social interaction value can be increased by half time show, and cheering performances during college sporting events. In addition, social interaction motivation, which is a fan's desire to interact with other fans, influenced the spectator decision to attend sporting events. To increase social interaction, sport marketers in college athletic departments could provide their fans with a cyber fan club forum on the team's website. Also, social networking platforms, such as Facebook and Twitter could be incorporated because they give fans opportunities to bond and interact with others.

Another finding from this study is that male and female spectators had different perceptions about spectator motivation. For male spectators, the acquisition of knowledge and vicarious achievement factors had a significantly greater impact than for female spectators. The male spectators may consider team wins and team plays as a significant factor for attending college sporting events. In addition, although there is no significant difference for aesthetic and drama in terms of gender, female spectators were more affected by these factors. Therefore, college sporting events are getting more and more popular for female spectators so that college athletic directors and marketers should focus on these factors in order to increase female fan base.

Conclusions

This study was attempted to understand the effects of perceived spectator motivation factors on the college sense of community. The findings of this research may provide important factors and influence of motivation factor decisions that athletic directors and sport marketers in college should make; however, several limitations may have affected the results. First, the data were collected from only one a major public university in the southern part of the United State. Therefore, the findings may not be generalized to other context of sport games. Future studies should collect data from various colleges, and data should be collected from spectators in sporting event days. Second, this study only focused on the relationship between spectator motivation factors and the college sense of community, so future studies should identify moderating effects of variables (i.e., involvement, team identification, and social adjustment) on the relationship of the college sense of community constructs.

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