Original Article

Factors that drive team identification in intercollegiate athletics: a perspective on product involvement

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Abstract:

Although the most highly identified college students will become season ticket holders, donors, and consumers of merchandise, there is still a lack of researches in securitizing factors significantly associated with the development of students' identification with intercollegiate athletics. Therefore, this study was to examine whether a student's situational and enduring product involvement related to intercollegiate athletics has a significant impact on team identification. A total of 242 undergraduate students in a major public university in the southeastern region of the United State completed questionnaires for the study. The researchers tested the efficacy of the model by examining a test of the measurement model and a test of overall model predicting team identification. The results of a structural equation model and the chi-square difference revealed that the second-order correlated model was the parsimonious model for the data when compared to the first-order model. The results from the structure equation modeling demonstrated that situational involvement and enduring involvement could enhance students' team identification in higher education. Findings of the study suggests that sport marketers and college administrators in higher education should pay particular attention to the development of student centered environments via improving interaction with players and coaches, enjoyable peripheral stadium services, various community activities, social media communication, and learning opportunities about the team and its sports.

Key Words: Intercollegiate athletics, Team identification, Product involvement, Sport marketing, Factor model

Introduction

Since intercollegiate athletics have become a powerful business that generates significant profits from fans of a variety of sports, many scholars have begun to pay attention to fans; relationships with sports entities. In particular, team identification has been recognized as a level of psychological attachment toward a certain sports team (Branscombe & Wann, 1994; Koo & Hardin, 2008). Fans who have strong identification with a team tend to show biased purchase behavior, differentiation with respect to alternative brands, and healthy socio-psychological functions in the evaluative process (Branscombe & Wann, 1994; Koo & Hardin, 2008; Milne & McDonald, 1999; Underwood, Bond, & Baer, 2001). Even though the previous studies have established a foundation for understanding team identification within the sports industry (Gladden & Funk, 2002; Funk & James, 2001; Hill & Green, 2000; Kahle, Aiken, Dalakas, & Duncan, 2003; Mullin, Hardy, & Sutton, 2007; Park & Dittmore, 2014; Yoshida & James, 2010), there is still a lack of understanding of which aspects are positively associated with the improvement of team identification. Therefore, it is necessary to identify factors and test a comprehensive conceptual factor model generating the level of team identification. Based upon product involvement, this study aims to provide a multidimensional model and test to identify the factors that generate team identification in the case of intercollegiate athletic program.

Theoretical Framework

Team Identification

Team identification has been defined as a psychological attachment toward a team, coach, athletic department, or organization (Trail, Anderson, & Fink, 2000; Wann & Pierce, 2005). While highly identified fans are disposed to define themselves as integral participants in the game, many scholars have noted that their affective, cognitive, and behavioral responses are different from those of fans who have lower levels of team identification (Trail, Anderson, & Fink, 2000; Tajfel, 1982; Wann & Pierce, 2005). For instance, while highly identified fans have a greater tendency to integrate into social groups, they share self-concepts and knowledge about the team' tradition, history, and personnel with the in-group members, which, in turn, enhances personal self-esteem (Branscombe & Wann, 1994; Tajfel, 1982; Wann, 2000; Wann & Pierce, 2005). In addition, the level of team identification is significantly related to consumers' responses regarding intention to attend home or away games, and likelihood to purchase season tickets or team-licensed products (Gau, James, & Kim, 2009;

Lee, Shin, Park, & Kwon, 2010; Madrigal, 1995; Theodorakis, Koustelios, Robinson, & Barlas, 2009; Trail et al., 2000).

In higher education, when the student group is a significant fan segment, the development of team identification in the college years plays a significant role in students' college lives (Sung, Koo, Kim, & Dittmore, 2015; Sutton, McDonald, Milne, & Cimperman, 1997). While the highly identified students have more opportunities to engage in social activities in the college environment, there positive social interactions with group members enhance their sociopsychological well-being in the complex nature of college life, which is a noteworthy facilitator of these students' academic goals (Pedrotti, Edwards, & Lopez, 2008; Pittman & Richmond, 2007, 2008; Shankland, Genolini, Franca, Guelfi, & Ionescu, 2010). In addition, the college students who are highly identified toward a team have a strong sense of belonging to the university, which is directly related to academic performance in higher education (Sung et al., 2015). Finally, the fans who successfully complete a college degree with strong team identification are perspective donors and season ticket holders; who will generate significant revenue for the intercollegiate athletic programs. Therefore, this study used students for its sample as developing a significant fan segment and understanding students' identification are key strategies for higher education sports organizations to succeed in a competitive market environment.

Product Involvement

Many researchers in leisure and recreation have paid attention to participants' identified behavior based on their involvements because the individuals' levels and types of activities are stimulated via a variety of environments (Kim, Scott, & Crompton, 1997; Selin & Howard, 1988). In particular, product involvement is defined as "an internal state variable that indicates the amount of arousal, interest or drive evoked by a product class" (Mittal & Lee, 1989, p. 194); this is consistent with the definitions of other consumer psychologists (Bloch, 1981). Involvement is explained as individuals' motivations or interests regarding a certain product and their internal states caused by certain stimuli or situations; identification represents a strong form of involvement in that a consumer's position on a product and is based on psychological attachment (Beatty, Homer, & Kahle, 1988; Celsi & Olson, 1988; Houston & Rothschild, 1978; Rothschild, 1984). In addition, Beatty Homer, and Kahle (1988) noted that "involvement results when important values of the person's self-image are engaged or made salient by a decision situation, whereas identification results when these values, self-images, or important attitudes become cognitively linked to a particular stand or choice" (p. 152). Finally, the current study is intended to use the concept of product involvement as a theoretical framework to understand the factors generating team identification.

Situational involvement represents an evaluation of objective stimuli and temporary awareness of a certain product, including expenses, performance, and social and psychological environment (Celsi & Olson, 1988; Parkinson, & Schenk, 1980). In addition, Celsi and Olson (1988) reported that situational involvement is directed toward the use of a product in a specific situation; situational involvement is a relatively short-term state of arousal related to team attributes. In higher education, college students are involved in a number of products (e.g., core products, service quality, and social environment) related to intercollegiate athletics. In particular, Mullin, Hardy, and Sutton (2007) indicated that the core product is a bundle of sports fans' perception of the game. Compare to other groups, college students are more easily perceive a number of attractive components that promote engagement with core college sports team products; these components, which include star players, coaches, outstanding performances, tradition, and history, provide tangible and intangible environments around the campus and the college community (Gladden & Funk, 2002; Yoshida & James, 2010). In addition, Attractiveness and services of the college stadium enhance students' evaluation of the team (Kahle, Aiken, Dalakas, & Duncan, 2003). Hill and Green (2000) also revealed that a positive perception of the services from stadium's services could affect consumers' future behaviors and emotions regarding the team and its environment. This is consistent situational involvement, in which stimuli in a specific environment (e.g., perceptions of service provided by employees, surrounding conditions, seating spaces and functions, and well-recognized signs), saliently influence students' decision. Lastly, while college sports promote social commonalities in the college community, including traditions, rituals, tailgate parties, team logos and team colors, students are easily categorized with others who share common self-concepts, interests, excitement, and passions (Melnick, 1993; Wann & Robinson, 2002). Additionally, promotions are easily spread through a variety of social media (Sutton, et al., 1997). In conjunction with situational involvement, awareness of intercollegiate athletic programs in the community, campus environment, and media could create interest and motivation for students (Mittal & Lee, 1989). While individuals have a tendency to belong to a group that shares a goal or purpose, intercollegiate athletic programs promote a sense of belonging to a certain organization. In particular, Abrams and Hogg (1999) found that the social association process affects an individual's stereotypic perception. Additionally, other researchers revealed that, while team awareness is significantly associated with team identification, social affiliations that are activated by media, friends, and the community enhance team awareness by increasing exposure to team information (Funk & James, 2001; Park & Dittmore, 2014; Tajfel, 1982).

Enduring involvement is independent of a purchase situation, and it refers to the degree of hedonic pleasure related to a product; this pleasure can be based in individuals' interests, self-concept, values, and ego (Richins & Bloch, 1986; Celsi & Olson, 1988). In addition, enduring involvement is based on the relationship of the product to the person's centrally held values across all purchase options (Celsi & Olson, 1988). College

students have centrally held values and interests in particular category (e.g., belief and domain involvement). In this context, *belief* refers to an organizational tradition interrelated with the college sports team's characteristics, as distinguished from those of other teams; it reflects students' values regarding the team, including courage, ethical values, self-discipline, and acceptance of authority (Chen, 2007; Sundeen, 2001). The strong values college students' holds are consistent with the concept of enduring involvement. In addition, college students go to games, read stories in the media, enjoy facilities, and connect their lives with a sport because they consider the sport pleasurable. According to Celsi and Olson (1988), the domain, or preference on an objective, is relative to an individual's personal goals and values. In higher education, the domain involvement is college students' perceptions of a certain sporting objective, which is standardized according to desires, values, and interests (Celsi & Olson, 1988; Zaichkowsky, 1985). Finally, deep-rooted senses of belief and domain involvement in a certain sports category are shown as college students' values and interests, which are centrally held and used in decision situations.

The current study proposed the concepts of situational (e.g., core product, service quality, and social environment) and enduring (e.g., belief and domain) product involvement to understand consumers' cognitive, affective, and behavioral responses. As both types of involvement reflect a student's feelings of self-relevance toward the products, increased involvement could facilitate a greater number of thoughts and emotions related to the team. Even though previous studies have emphasized the factors that increase fans' identification, and identified the role of spectators' team identification maintaining a positive relationship between spectators and sport organization (Gladden & Funk, 2002; Funk & James, 2001; Hill & Green, 2000; Kahle, Aiken, Dalakas, & Duncan, 2003; Mullin, Hardy, & Sutton, 2007; Park & Dittmore, 2014; Yoshida & James, 2010), there is a lack of research that scrutinizes factors significantly associated with the development of team identification in intercollegiate athletics. Therefore, the purpose of this study was to examine whether a student's situational and enduring product involvement in intercollegiate athletics has a significant impact on team identification by testing the three hypotheses:

RH1: Core product, service quality, and social environment are associated with situational involvement.

RH2: Belief and domain involvement are associated with enduring involvement.

RH3: Situational and enduring involvements significantly enhance team identification.

Material & methods

Participants

For this study, undergraduate students enrolled in a major public university in the southeastern region of the United States participated while data were collected via an intercept survey method. The data collection resulted in a purposive sample of 242 undergraduate students. 146(60.3%) males and 96 (39.7%) females containing 72 freshmen (29.8%), 68 sophomores (28.1%), 66 juniors (27.3%), and 36 seniors (14.8%) participated, totaling 242. The majority of students (81.0%) were between the ages of 18 and 22 while the mean age of participants was 21.46 years ($SD = 5.267$). The students were initially contacted by email and asked to follow hyperlinked directions for the online survey during the football season. In the beginning of the survey, authors initially asked whether or not the student could define as a fan of the football team at the given university. In later, authors removed the participations that reported as not a fan of the football team or a fan of different teams from the sample in order to measure correct identification toward the football team. While the football programs in the university was ranked in top 30 in overall successes in winning records reported by NCAA 2015, and has provided significant college environment in the university, the student fans of the football program was collected to measure the relationships between significant factors around college environment and the level of team identification (Wann, Tucker, & Schrader, 1996).

Measurement

The instrument for this study included scales for core products, service quality, social environment, belief, domain involvement, and team identification. All scale items utilized a 5-point Likert type-scale anchored by *strongly disagree* (1) and *strongly agree* (5). The instrument used in this study contains six major constructs: core products, service quality, social environment, belief, domain involvement, and team identification. In addition, the multiple measures for each of the sub-dimensions of factors generating team identification were developed and modified from the items of existing scales.

First, the measure of core products was illustrated with team success, team performance, tradition, head coach, and star players. 16-items of core products were adapted from existing scales (Gladden & Funk, 2002; Chen, 2007; Underwood, Bond, & Baer, 2001). For example, team success contained caring of winning, post-season records, and league champion while team performance involved teamwork, best efforts of each game, excitement, and game entertainments. In addition, tradition included history of winning and a rich history while head coach included existing favorable head coach in the team, and performance of head coach. Lastly, star player contained existing star player in the team, enjoyable to watch star player, and star players who they want to watch. Second, 9-items of service quality were adapted from the study by Underwood, Bond, and Baer (2001) and Yoshida and James (2010). Service quality included stadium itself (e.g., attractiveness, quality, comfortable seats, layouts, concessions of stadium), employees (e.g., being friendly, willingness to help, taking action about

what you needs, and professional knowledge of employees in the stadium). Third, 10-items of social environment adapted from Chen (2007) including fan affiliation, community affiliation, and media. The concept of measuring social environment was adapted from Underwood, Bond, and Baer (2001). Fan affiliation involved availability to meet other people, feeling like part of the community, supporting the team, and the importance of being a fan. Community affiliation included representing the city, pride of the team in the city, and a symbol of the city while media represented easiness of following the team through media, reading magazines regarding the team, and learning through social media. Fourth, 4-items of belief were adapted from Underwood, Bond, and Baer (2001), and slightly modified for the purpose of the study. It contained serious discipline of the team, respect of authority, diligent attitudes, and fair play. Fifth, 4-items of domain involvement was measured to understand the level of individuals' involvement with the domain itself in sports. The domain involvement scale was adapted from Zaichkowsky (1985) including the domain (a certain sport) that is part of life, following media about the sport, level of love of the sport, and thinking of the sport every day. Finally, the Spectator Sport Identification Scale (SSIS) (Wann & Branscombe, 1993) was utilized to determine team identification. 7 items of team identification included an importance of winning the team, a view point from friends, following team through medium, importance of being a fan, preference against rival teams, display the teams' name in own place, and intention to attend home games next season.

Data Analysis

The analysis of data was performed using the SPSS 20.0 and AMOS 20.0. The researchers tested the efficacy of the model by examining a test of the measurement model and a test of overall model predicting team identification. First, the Cronbach's alpha coefficients were accessed for the reliability of each scale. Second, Confirmatory Factor Analysis (CFA) was employed to evaluate psychometric measurement by the covariance matrix and maximum likelihood estimation, and to verify how the items secure the specified constructs in the measurement model (Bentler & Hu, 2005; Bollen, 1989). Since five products related to intercollegiate athletics can be meaningfully described by a higher-order structure, Rindskopf and Rose (1988)'s model comparison between a first-order model consisting of five correlated factors (e.g., products) and a second-order model consisting of two superordinate factors (e.g., involvements) and five first-order factors was employed to examine the underlying structure of factors influencing team identification. Third, structural equation model (SEM) scrutinized relationship of influential factors (e.g., core products, service quality, social environment, belief, and domain involvement) and team identification construct, based upon the favorable model fit indices.

Results

Confirmatory Factor Analysis

Preliminary data analysis indicated that the univariate normality was supported as none of the absolute value of kurtosis was higher than the recommended cut-off criteria value of 5.00 (Bentler & Hu, 2005). However, the Mardia's normalized estimate of multivariate kurtosis was 18.58 which might not satisfy the issue of multivariate normality in the sample (Mardia, 1970). Therefore, Bootstrap estimation, which corrects standard errors and the confidence intervals, was used to analyze the multivariate non-normal data for further analysis rather than Maximum Likelihood (ML) estimation as ML estimation may provide biased and/or incorrect results (Bentler & Hu, 2005; Byrne, 2013; McDonald & Ho, 2002).

For the reliability of the instrument, the authors assessed the 50 items for internal consistency with Cronbach's alpha. As a result of the test, the instrument with five dimensions and independent variable team identification were reliable to measure further examination. For example, the result of Cronbach's alpha indicated that all constructs including core products (.92), Service quality (.93), Social environment (.94), Belief (.84), Domain involvement (.89), and Team identification (.94). Additionally, the items related to product involvements and team identification considered having an acceptable level of reliability exceeding .70 threshold (Nunnally & Bernstein, 1994).

A confirmatory factor analysis (CFA) was employed to examine whether the items actually measured each related latent construct as well as whether a latent construct is distinct to the other constructs (Hair, Black, Babin, Anderson, & Tatham, 2006). With 50 items, the first item of each latent construct was fixed by the numeric value equal to one for the model identification. The estimates of exact, absolute, parsimonious, and incremental fit indices demonstrated a favorable model fit for the initial measurement model: χ^2 (1066) = 4046.751, $p < .001$; the Root Mean Square Error of Approximation (RMSEA) = .060; Comparative Fit Index (CFI) = .719. In addition, as the Lagrange Multiplier (LM) tests suggested, the measurement model allowed the covariance of error terms because the modification was supported by the theoretical rationale. All fit indices for the modified measurement model met the recommended values specifying a good model fit to the data (Hu & Bentler, 1999; Kelloway, 1998): χ^2 (1106) = 2061.208, $p < .001$, RMSEA = .060, CFI = .915. The selected model indices recommended the use of the modified measurement model as part of a structural model examining causal relationships among the latent constructs. Evidence of convergent validity was produced by calculating average variance extracted (AVE) of each latent construct (Hair, et. al., 2006). In the current study, the estimated AVE was ranged from .638 to .973 for all latent constructs, which exceeded .50 cut off thresholds recommended by Fornel and Larcker (1981). In addition, the estimated AVE scores for each latent factor higher than the

squared phi correlations (ϕ^2) in the measurement model indicated satisfactory levels of discriminant validity (Hair, et. al., 2006).

Model evaluation with second-order factor model

While five constructs are theoretically portrayed by a higher-order structure, an evaluation of higher-order factor model was required to conduct a stepwise modeling procedure that the less restricted model (e.g., higher-order model) was compared with the most restricted model (e.g., five-correlated factor model) by model fit indices (Rindskopf & Rose, 1988). As figure 1, the fit indices of the restrictive model (e.g., five-correlated factor model) derived from the SEM revealed an poor fit to the data; $\chi^2(1116) = 2348.730, p < .001$, RMSEA = .068, CFI = .890. While the suggestions from LM test were not theoretically interpreted, no additional path was included in the SEM for the further consideration. Finally, the model indices indicated that the model fit of the correlated factor model was a lack favorable relationship with team identification.

On the other hand, the less restrictive model (e.g., second-order model) from the SEM revealed a good fit to the data; $\chi^2(1112) = 2133.100, p < .001$, RMSEA = .062, CFI = .909, and all parameters were significantly estimated. In addition, an evaluation of the second-order model compared with the five-correlated model resulted that second-order model is a significantly better fit to the; $\Delta\chi^2(4) = 215.630, p < .001$.

Fig. 1. Results of Fit Statistics for the comparison between model 1 and model 2.

Notes: (1) Model 1 = the correlated five factor model, $\chi^2(1116) = 2348.730, p < .001$, RMSEA = .068, CFI = .890; (2) Model 2 = Second-order factor model, $\chi^2(1112) = 2133.100, p < .001$, RMSEA = .062, CFI = .909; (3) $\Delta\chi^2(4) = 215.630$ ***, $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

The decomposition of a significant relationships derived from SEM reveals that students' higher level of situational involvement is positively associated with the development of identification toward a certain team ($t = 5.766, p < .001$). This relationship indicated that when team characteristics increase by 1 standard deviation, .573 standard deviation of team identification is increased. Second, students' enduring involvement in higher education ($t = 3.378, p < .001$) also directly improves students' level of team identification. In addition, the positive relationship indicated when 1 standard increases in personnel in the team, .493 standard deviation of team identification is increased.

Discussion

The focus of this study was to investigate the potential factors that generate college students' identification. Two models, a multicorrelated factor model and a second-order factor model (Figure 1) were evaluated. The multicorrelated model did not fit the data, and the model was finally eliminated from further consideration on the development of team identification. Finally, the results of this study indicated that, while students are involved with a number of products related to intercollegiate football program, such as short-term interests (e.g., core products, service quality, and social environment) and deep-rooted value (e.g., belief and domain involvement), there is statistical evidence that two dimensions to improve students' levels of identification toward the college football team. These findings support intercollegiate athletic programs' efforts to maintain long-term relationships with college students because students are a significant fan segment and are perspective future consumers of season tickets, licensed-products, and donations.

One of findings from the decomposition of the structure equation modeling indicated that core products, service quality, and social environment significantly represent a short-term arousal and temporary awareness that stimulates college students to develop identification toward intercollegiate athletic programs. Our findings imply that, because college students spend a significant amount of time at a certain college, they are easily associated with a number of team attributes, including team-related products, the stadium's environmental and functional services, social group activities, and team information. In particular, the team attributes that create students' motivations and interests play a noteworthy role in generating students' identification toward the college team. The findings support that the idea that unique products in college sports including college representatives, game

schedules, and the competition between home and away games, the history, star players, and game performances are attractive elements that encourage students to affiliate with intercollegiate athletic programs (Yoshida & James, 2010). In particular, Yoshida and James (2010) noted that core products, which are attractive components designed by intercollegiate athletic programs, generate entertainment values and that the excitement of the game generates service value and products related to the game experience (Schaaf, 1995; Yoshida & James, 2010). In addition, the results of this study indicate that the evaluation of the stadium's environmental and functional services is significantly associated with college students' motivation and internal states. As Rothschild (1984) noted, situation involvement refers to a stimulus from an objective or from an individual's evaluation in a purchase situation; students' perceived emotions from interactions with personnel, the number of comfortable seats available, the stadium layout, and the accessibility of the stadium could all stimulate a further level of involvement with the team. In particular, college sports marketers provide managerial delivery of services to college student fans in the stadium environment, so it is reasonable that the students evaluate their service based on overall experiences at the stadium (Koo et al., 2008). This study also showed that college students are more likely categorized with other students and that they share information, interests, and self-concept during their college years. These students have a relatively short-term state of arousal due to a number of factors in the college social environment, such as college social groups, social activities designed by intercollegiate athletic programs, and information regarding team efforts shared by friends or on social media (Melnick, 1993; Wann & Robinson, 2002). This study revealed that newsletters, videos, or articles related to the team that is shared by friends or the organization can increase college students' temporary awareness of the team, and improve their level of team identification.

The second finding derived from the current investigation was that team belief and the involvement of a certain sports category significantly affect students' values and interests, enhancing their team identification. Enduring involvement represents the degree of individuals' hedonic pleasure from the product and the individuals' interests associated with their self-concept, values, and ego. The perceived psychological statements of a college sports team could enhance the level of psychological attachment toward the intercollegiate athletic program (McIntyre, 1989; Richins & Bloch, 1986). For example, the preferred sport, the domain itself, is part of the students' deep-rooted motivations to enhance identification with a college sports team. Involvement refers to students' perceptions related to a certain sporting objective, as standardized by desires, values, and interests (Celsi & Olson, 1988). This is consistent with students' passionate desires and extended goals, and watching, reading, and spectating in a certain sports domain, ties their self-concept to the excitement of the favored sport (Branscombe & Wann, 1990; Celsi & Olson, 1988). In addition, a student's belief about a team's performance is interrelated with the team's image in terms of discipline, respect for authority, diligence, and fair performance, which connects the students' values and ego to the team's distinguished class. In particular, Underwood, Bond, and Baer (2001) stated that a strong belief or trust in how the team has engaged with self-discipline, and ethical values is a major function that maintains sports fans' interests.

Conclusions

Intercollegiate athletic programs have become a major business in the United States, and they have generated many billion dollars from identified sport fans through biased purchase behavior, differentiation with respect to alternative brands, and psychological functions in the evaluative process (Branscombe & Wann, 1994; Koo & Hardin, 2008; Milne & McDonald, 1999; Underwood, Bond, & Baer, 2001). The campus environment generated by intercollegiate athletic programs improve students' lives by enhancing their sense of belonging to the university, social engagement, and psychological well-being, which are all directly related to academic performance in higher education (Sung et al., 2015; Sutton et al., 1997). This indicates that college sports programs need to develop effective marketing tools to maintain positive engagement with college students, as students are prospective season ticket holders and donors. This research uncovered that a student's identification with a team could be determined by a relatively short-term state of arousal related to team attributes and by a deep-rooted sense of belief and domain involvement with a certain sport. Team identification has been known as one of the key strategies for any sports organization to succeed in a competitive market environment; therefore, the findings from this study suggest that sports marketers and college administrators should pay more attention to the following suggestions.

This study suggests providing more access to core products, such as personal meetings with players and head coaches. In particular, Koo, Ruihley, and Dittmore (2012) suggested that emotional connection with players is positively associated with sports fans' attachment toward a program. Because sports fans have a lack of experience with players and coaches, meeting these people before or after a game could create a strong attachment toward the sports team. In addition, the online population has grown to 1.2 billion people, and more people are connected to social media every day (Brenner, J., & Smith, A., 2013). This study suggests that this is an effective communication tool for use with college students. In particular, Watkins (2014) noted that successful communications improve students' interest in a team and their intention to visit the stadium. In this regard, social media outlets, such as special Twitter, Facebook, and Instagram accounts, could be significant marketing tools to interact with students. In addition, promotional videos regarding historical performances, traditional promotions, and winning moments, and newsletters providing frequently updated information about the

team attributes could improve college students' short-term interests. Lastly, this study suggests that sports marketers and college administrators create educational programs to maintain students' interest in a team. For example, placing an intercollegiate athletics hall of fame in a visible location on campus could educate college students about the teams' outstanding contributions, and publicize the teams' ceremonies and honors. In addition, a hall of fame can perpetuate students' memories of intercollegiate athletic programs.

Limitations and Future Studies

This current study provides dominant insights in terms of which factors significantly generate team identification with intercollegiate athletic programs. The results of the study contain limitations that should be addressed in future research. First, this study has employed an intercept sampling method using Division I undergraduate students from a major public university in the southeastern region of the United States. As the circumstances around intercollegiate athletic programs vary based on the size of the program, categories of sports, its divisions, or categories of sports, future study should consider a large number of schools and other categories of sports in order to generalize the population, and eliminate environmental differences. Second, team identification could be influenced by socio demographic factors. For example, that the level of team identification is significantly different in gender, and greater in young age groups than older respondent (Pease, & Zahng, 1996). In addition, a number of studies resulted that young males have the most knowledge about a certain sport than women and old age groups, and positive relationship between the knowledge and team identification (Dietz-Uhler, Harrick, End, & Jacquemotte, 2000; Wann, & Branscombe, 1995). Finally, while this current study was focused on the examination whether the product involvement generates team identification, future study need to address the significant variables such as demographic information, and the moderate role of knowledge to explain team identification.

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