Constraints and Motivators: A New Model to Explain Sport Consumer Behavior

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This study focused on developing a model to explain relationships among constraints, motivators, and attendance, and empirically test the proposed model within the spectator sport context. The proposed model explained 34% of variance in Attendance. Results showed that Attachment to the Team, an internal motivator, entered first and explained approximately 21% of the variance in attendance. Lack of Success, an internal constraint, entered next and explained almost 10% additional variance. Leisure Alternatives, an external constraint entered next and explained an additional 3%. The ability to properly evaluate constraints and motivators gives sport marketers the opportunity to more effectively serve existing fans, as well as attract new fans.

The sport industry is the one of the largest industries in the United States, estimated at $441.1 billion (Plunkett, 2008). Spectator sport is a major part of this sport industry worth $28 billion and it is estimated that U.S. consumers spend almost $17.1 billion dollars a year on tickets to sporting events (Plunkett, 2008). Ticket sales are critical to the success of professional sport organizations as they typically comprise anywhere from 20% to 50% of the total revenue stream for Major League Baseball, the National Football League, the National Basketball League, and the National Hockey League (Badenhausen, Ozanian, & Settimi, 2007).

However, for newer and smaller leagues, the percentage from the gate is even higher, depending on the level and type of sport (Howard & Crompton, 2004). Sport organizations are craving high attendance not only for the ticket revenue but also for the revenue from the sale of on-site game day concessions, merchandising, and parking, which was $11.9 billion a year in the U.S. according to Plunkett (2008). However, competition for attracting spectators has intensified. The growth of new leagues has expanded the total number of professional teams at all levels to over 600 and multiple teams are competing for the spectators' financial resources in many local spectator sport markets. Moreover, professional sport organizations are

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facing several challenges such as increasing costs, falling attendance, and declining ratings (Howard & Crompton, 2004). So, it would be useful for sport marketers to understand the factors that affect an individual's decision to purchase tickets and to attend sporting events.

Researchers have investigated motivators for sport spectator consumption and have found many motivators that play a critical role in attracting fans to sporting events (e.g., Funk, Ridinger, & Moorman, 2003; Sloan, 1989; Trail & James, 2001; Wann, 1995). However, only a few researchers in sport management have examined constraints or barriers to attendance (Trail, Robinson, & Kim, 2008). Moreover, no research has investigated the relationship among motivators, constraints, and attendance. Considering Howard and Sheth's (1969) notion that consumers evaluate both positive and negative aspects when making decisions, and according to Kanouse (1984), people tend to weigh negative attributes more heavily than positive attributes in some cases, it would be valuable to understand constraints as well as motives. Thus, this study focused on developing a conceptual framework to explain relationships among constraints, motivators, and attendance, and empirically testing the proposed model within the spectator sport context.

Constraints

The meaning of the term "constraint" is varied across academic disciplines and contexts. To avoid confusion over the concept of constraints due to varying uses, we briefly discuss different applications of the term and present the definition of constraints adopted in the current study on which we base our conceptual model of constraints. In economic theory, a constraint is an umbrella term that means boundaries, obstructions, tendencies, and states (Hawkins, 2003). A constraint in information theory is defined as a degree of statistical dependence among variables (Garner, 1962). In addition, the term constraint is often used in the business management context and is described as a factor or factors, which may limit an organization's performance relative to its objective (Cox & Goldratt, 1986). Finally, in the leisure realm, a constraint is defined as a factor that prevents or prohibits an individual from participating and enjoying a leisure activity (Jackson, 2000).

The present study employed a slight variation of the latter definition due to the following reasons. First, the definition is the most widely accepted definition in the leisure and sport management area. There is considerable agreement among researchers on this frequently cited definition of constraints. Next, the definition is straightforwardly applicable to the current research because it is particularly concerned with leisure participation, given that sport spectating, which is a focal behavior of interest in this study, is a type of leisure participation. Finally, the definition is readily understandable for practitioners who might not have extensive academic knowledge of consumer behaviors. This feature is preferable because it enhances the applicability of findings from constraints research to leisure and sport management practice. Therefore, for the purpose of this study, constraints are defined as factors that impede or inhibit an individual from attending a sporting event.

Research from various disciplines (e.g., tourism, recreation, sport sociology, and sport psychology) has devoted attention to constraints as a key concept in understanding an individual's choices and behaviors. Although numerous

researchers have developed frameworks for investigating leisure constraints and have discussed empirical issues associated with this line of research (Alexandris & Carroll, 1997; Crawford & Godbey, 1987; Crawford, Jackson, & Godbey, 1991; Crompton, Jackson, & Witt, 2005; Hubbard & Mannel, 2001), few have examined the influence of constraints on sport spectator consumption behavior.

Crawford and Godbey (1987) developed a theoretical framework of leisure constraints. They suggested that leisure constraints could be divided into three main categories: intrapersonal, interpersonal, and structural constraints. Crawford and Godbey conceptualized that intrapersonal constraints incorporated an individual's psychological states and the attributes that might have a negative influence on leisure preferences (e.g., stress, religiosity, reference group attitudes, prior socialization into specific leisure activities, perceived self-skill, and subjective evaluation of the appropriateness and availability of various leisure activities). Interpersonal constraints were regarded as the result of relationships, or lack of relationships, with others (e.g., lack of an appropriate partner with whom to participate in a leisure activity) that might have a negative influence on both leisure preference and participation. Structural constraints were characterized as the factors that interfered between leisure preferences and participation, that is, physical or environmental factors that prevented an individual from leisure participation (e.g., financial resources, season, climate, the scheduling of work time).

Crawford et al. (1991) argued that the constructs in Crawford and Godbey's (1987) model were not conceptually linked to each other and the model did not explain the dynamics of those constructs. Therefore, they further developed the previous model and proposed a hierarchical model of leisure constraints. They contended that leisure constraints were faced in sequential order corresponding to a hierarchy of importance and participation in leisure activity could only occur if an individual successfully negotiated through the series of constraints. In other words, when an individual started to assess the possible participation in leisure activity, that individual initially faced intrapersonal constraints, which were generally considered as the most influential. If the potential participant had any intrapersonal constraints, the person would have to overcome the constraints first before confronting interpersonal constraints. If the individual resolved both the intrapersonal and interpersonal constraints, then the individual would face the structural constraints, if they existed. Finally, the individual participated in the leisure activity only if the individual did not have any structural constraints or if the individual successfully solved the structural constraints.

However, Crawford et al.'s (1991) model faced immediate criticism. Some researchers reported that constraints do not necessarily prevent or reduce participation (Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991). These findings guided Jackson, Crawford, and Godbey (1993) to introduce two new propositions related to negotiation and balance. The negotiation proposition indicated that "participation is dependent not on the absence of constraints (although this may be true for some people) but on negotiation through them. Such negotiation may modify rather than foreclose participation" (p. 4). Based on this proposition, researchers have identified resources or strategies that people used to help them negotiate through the constraints (Henderson, Bedini, Hecht, & Schuler, 1995; Henderson & Bialeschki, 1993; Jackson & Rucks, 1995; Samdahl & Jekubovich, 1997). The balance proposition indicated that "Both initiation and

outcome of the negotiation process are dependent on the relative strength of, and interactions between, constraints on participating in an activity and motivations for such participation" (Jackson et al., 1993, p. 9). This proposition highlighted the notion that constraints interact with strength of motivation for the participation decision; however, few researchers have investigated the relationship between constraints and motives empirically.

Carroll and Alexandris (1997) tested the balance proposition with a Greek population by examining the relationship between perception of constraint dimensions and strength of motives for participation. Their results indicated that the strength of motives for sport participation had a negative relationship with the perception of constraints and positive relationship with sport participation. Petrick, Backman, Bixler, and Norman (2001) examined how motives and constraints affected golfers' participation. They found that golfers' motives and constraints differed by their past behavior and experience. Hubbard and Mannel (2001) compared a number of different models in terms of the relationship between constraints and motives and noted that motives were a critical factor. The negotiation and balance proposition provided guidance for our proposed conceptual framework referent to the dynamic process of how constraints and motivators influence a sport consumer's decision to attend a sporting event.

Constraints on Sport Consumption Behavior

In the sport literature, researchers have investigated factors that have been identified to have a negative influence on sport consumption behavior to some extent, although these factors have not been termed constraints. Fizel and Bennett (1989) found that if the game was broadcast on television or radio, it might deter people from going to the venue. Hansen and Gauthier (1989) and Zhang, Pease, Hui, and Michaud (1995) reported that game schedule negatively influenced attendance as well. Baade and Tiehen (1990), Hansen and Gauthier (1989), Pan and Gabert (1997), and Zhang et al. (1995) reported that financial cost (e.g., ticket price) negatively affected attendance. Hansen and Gauthier (1989) and Noll (1974) found that weather also had a negative influence on spectators' decision to go to a sport event. Baade and Tiehen (1990) found that alternative sport entertainment also influenced attendance. In addition, alternative leisure activities (Hansen & Gauthier, 1989), lack of team success (Baade & Tiehen, 1990; Hansen & Gauthier, 1989; Pan & Gabert, 1997; Zhang et al., 1997), stadium location (Hansen & Gauthier, 1989; Pan & Gabert, 1997) and seat location (Hansen & Gauthier, 1989) were also identified to negatively influence attendance.

In the sport consumer behavior realm, no research has examined any aspect of the constraints model until recently. Trail et al. (2008) examined differences between genders, and differences between attendees and nonattendees on structural constraints, while controlling for intrapersonal constraints (team identification, type of sport identification, and level of sport identification). They found that after the covariates were controlled for, there was no significant interaction effect and there was no main effect for attendees and nonattendees. However, there was a main effect of gender on the composite score of the structural constraints. Males perceived other sport entertainment opportunities, televised games, and a lack of team success to be greater constraints to attending games than females. Whereas,

females thought that the weather, social commitments, and work/school commitments were greater constraints than males did.

Despite the fact that a considerable amount of knowledge about constraints has been accumulated in the sport management realm, there are a couple of limitations on constraint research. First, there has been a lack of an underlying framework to guide constraint research in the sport management area, which has resulted in a continued generation of purely descriptive results. Thus, this study will attempt to provide a framework for investigating constraints on sport consumption behavior and test the model. Next, constraints were not examined in conjunction with motives which have been considered as one of the key predictors of the sport consumption decision (Trail, Fink, & Anderson, 2003). This has occurred even though Howard and Sheth (1969) have long posited that consumers evaluate both positive and negative attributes of the alternatives when making decisions. Furthermore, previous findings from leisure studies suggested constraints and motives should be investigated in the same framework (Jackson et al., 1993; Crompton et al., 2005). Hence, the current study incorporated constraints and motives together into a proposed model.

Proposed Framework

Based on the constraint model proposed by Crawford et al. (1991), the empirical results that followed, and the information found by Trail et al. (2008), we are proposing a slight modification to the constraint model. The proposed model consists of four dimensions: internal motivators, internal constraints, external motivators, and external constraints. Constructs and the classification of those constructs differ from the original constraints model that Crawford et al. (1991) conceptualized with three constraint categories and no motives. We believe that the dichotomy would contribute more clarity than previous models in the operational definitions of the constraint dimensions because some constraints (e.g., no interest of family or friends, lack of partner, negative reference group attitudes) could be grouped as both intrapersonal and interpersonal constraints (Hawkins, Peng, Hsieh, & Eklund, 1999; Trail et al., 2008), unlike the previous research. We also propose that two dimensions of motives might explain relationships among motives, constraints, and leisure participation more comprehensively than the single-dimension of motives as suggested by Alexandris, Tsorbatzoudis, and Grouis (2002). This dichotomy of motives proposition also has been justified by previous research (Deci, 1972; Gilbert & Hudson, 2000).

The general idea is still the same in that Crawford et al.'s (1991) intrapersonal and interpersonal constraints are subsumed by our internal constraints that are defined as internal psychological cognitions that deter behavior. Moreover, the structural constraints of Crawford et al. (1991) are represented by external constraints that are defined as social or environmental aspects that prevent or decrease the likelihood of the individual performing the behavior (e.g., cost, weather, lack of transportation). These constraints may be the opposite end of a continuum to the motivators. We have added two motivator categories (internal and external) that were not present in Crawford et al.'s model. Internal motivators are defined as internal psychological cognitions that motivate behavior (e.g., needs, values, beliefs, goals, role identities). External motivators are defined as social or environmental aspects that attract the individual to the behavior (e.g., promotions, the media, market demand variables, and feature preferences).

Purpose

The first purpose of this study was to identify unique constraints on sport consumption behavior in concert with motivators. The second purpose was to develop a psychometrically sound scale to measure constraints on sport consumption behavior. The third purpose was to propose an underlying framework that provided basic conceptual definitions of constraints and motivators, and their relationships to each other. Finally, we wanted to test the proposed model empirically within a spectator sport setting.

Method

Participants

The participants were spectators at a women's professional basketball game. Out of 200 questionnaires distributed, 115 usable questionnaires were collected, for a return rate of 57%. Approximately 42% of the respondents were between 40–49 years old, 28% were 50–59, and 16% were 30–39. The respondents appeared to be well educated as 75.3% of the total sample had at least attended some college. The participants were relatively wealthy as over two-thirds had incomes that were greater than $60,000. The sample was 17% male and 83% female. Over 75% of the respondents traveled less than 30 miles to the game and only 8.0% of the respondents traveled more than 90 miles. Finally, most of the participants attended the game with others. Only 8.3% of the participants reported that they attended the game alone.

Instrumentation

Before data collection, sport management experts consisting of one sport management faculty member and one sport marketer reviewed the items for content validity. Minor modifications to some items were made and some items were added for this research. The item "Lack of friends to go to the game with me" was added to the Lack of Someone to Attend With subscale and the item "My friends are not interested in going to a (team name) basketball game" was added to the No Interest from Others subscale following experts' suggestion that interactions with friends were a critical part of individuals' interpersonal relationship with others. The questionnaire consisted of five parts.

Internal Motivators.   The first part was comprised of 10 subscales with 30 items measuring internal motivators: three subscales (Escape, Social, and Achievement) from Motivation Scale for Sport Consumption (MSSC; Trail & James 2001), six subscales (Community, Coach, Level of Sport, Player, Sport, & Team) from the Points of Attachment Index (PAI; Robinson & Trail, 2005), and the Support for Women's Opportunity subscale from Sport Interest Inventory (SII; Funk et al., 2003). Items were measured using a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The MSSC has shown adequate internal consistency in previous use (α = .72 to .93; James & Ridinger, 2002; Robinson & Trail, 2005; Trail et al., 2003; Trail & James, 2001; Trail, Robinson, Dick, & Gillentine, 2003). The MSSC has also yielded good construct reliability with Average Variance Extracted (AVE) values ranging from .51 to .82 (James & Ridinger, 2002; Robinson & Trail, 2005; Trail & James, 2001; Trail, Fink et al., 2003; Trail, Robinson et al.,

2003). The PAI has also shown good internal consistency with alpha coefficients ranging from .75 to .86 and adequate construct reliability with AVE value ranging from .48 to .73 (Robinson & Trail, 2005; Kwon, Trail, & Anderson, 2005). In addition, Support Women's Opportunity showed good psychometric properties (α = .94; AVE =.84) in previous research (Funk et al., 2003).

Internal Constraints.   The second part was comprised of four subscales with 12 items: We modified the Lack of Knowledge subscale from the MSSC and the Lack of Success subscale from Trail et al. (2005). Each showed good internal consistency in the previous research (α = .89). In addition, the Lack of Someone to Attend With subscale and a No Interest from Others subscale were created based on the concept of interpersonal constraints from Crawford et al. (1991).

External Motivators.   The third part was comprised of six subscales with 20 items measuring external motivators: two subscales from MSSC (Aesthetics and Drama). A slight modification of the Role Model subscale from the SII, two subscales measuring Media and Promotions based on items from Fink, Trail, and Anderson (2002). These subscales showed good psychometric properties (α =.75 to .93, AVE = .51 to .81) in the previous research. Three items pertaining to Player Behavior were created for the current study.

External Constraints.   The fourth part was comprised of seven subscales with 21 items measuring external constraints: two subscales (Parking & Location) modified from the Venue Service Experience Survey (VSES; Trail, Anderson, & Fink, 2002) previously showed good psychometric properties (α =.73 to .94, AVE = .65 to .90); five subscales (Commitments, Financial Cost, Leisure Alternatives, Participant Sport Alternatives, and Sport Entertainment) modified from Trail et al. (2005) showed good internal consistency (α =.73 to .84) previously as well.

Behavioral Measures.   The final part consisted of two subscales with six items: a Merchandise Purchasing subscale modified from Trail et al. (2002) and an Attendance subscale modified from Trail et al. (2003). Both subscales showed good psychometric properties (α =.87 and .82, AVE = .70 and .58) previously.

Data Analysis

To evaluate the measurement models (i.e., internal motivators, internal constraints, external motivators, external motivators, and behavioral measures), we ran five separate confirmatory factor analysis on each dimension using LISREL 8.80. Goodness of fit indices used to evaluate overall fit of the model in the current study were the comparative fit index (CFI) and the standardized root-mean-square residual (SRMR) following Hu and Bentler's (1999) recommendation. However, Browne and Cudeck (1992) suggested that the root-mean-square error of approximation (RMSEA) reduced problems with model fit that are not addressed by chi-square statistics. Therefore, we also included RMSEA as well as chi-square value divided by the degrees of freedom as a frame of reference. Furthermore, we also examined the (standardized) discrepancy matrix because clear misspecification can be hidden by the indexed fit of the composite structural model and it is impossible to identify which elements of the composite hypothesis can be viewed as unacceptable from the fit indices alone (McDonald & Ho, 2002).

CFI values greater than .95 are indicative of good-fitting models and SRMR values of .08 or less are desired (Hu & Bentler, 1999). RMSEA values of less than .05 indicate good fit, values of .08 or less would indicate reasonable fit and values higher than .10 indicate poor fit (Brown & Cudeck, 1992). Hu and Bentler suggested that values less than .06 should be considered to indicate that a model has a good fit. Internal consistency values are indicated to show whether the items measuring a specific subscale correlate with each other well. Values greater than .70 are considered to be adequate. AVE values are also reported to indicate how well the items on a specific subscale collectively explained the underlying construct's variance. AVE values above .50 indicate that the subscales have good construct reliability (Hair, Anderson, Tatham, & Black, 1998).

Analysis was performed using SPSS Regression and SPSS Explore for evaluation of assumptions. Univariate outliers in the DV and in the IVs are sought using extreme values output from the Explore analysis. Following Hair et al.'s (1998) protocol, normality, linearity, and homoscedasticity assumptions were simultaneously assessed by analyzing residuals scatter plots. To examine the degree of multicollinearity and its effects on the results, we employed a two-part process (condition indices and the decomposition of the coefficient variance) developed by Belsley, Kuh, and Welschi (1980) and made comparisons with the conclusions drawn from the variance inflation factor (VIF) and tolerance values.

The relationship between the key independent variables (i.e., constraints and motivators) and attendance was examined by using a stepwise regression analysis in SPSS 15.0. We allowed all variables (both motivators and constraints) to be examined simultaneously and the variable that explained the most variance on attendance entered first. The variable that entered next explained the most remaining variance in attendance, and so on. Latent variable scores of theorized constructs were computed following JÖreskog's (2000) technique and used in the regression analysis. Latent variable scores are considered to provide means of overcoming measurement error common in all measured variables to some degree, and have the ability to represent multiple aspects of a theorized construct when they are well constructed, valid, and reliable (Hair et al., 1998).

Results

Measurement Models

The goodness of fit indices for the confirmatory factor analyses on each measurement model indicated good fit for all the CFAs (Table 1) except internal motivators, which showed reasonable fit based on two of three fit indices (RMSEA = .07, SRMR = .07). In addition to the measures for overall fit of the models, few standardized residuals in the discrepancy matrices from the measurement models were below −3.0 or above 3.0, with the exception of 7 of 465 internal motivators ($z = -3.65$ to −3.00 or 3.00–3.72), 2 of 171 internal constraints ($z = 3.15$–3.62), and only 1 of 231 external constraints ($z = 3.39$). No external motivators had residuals outside the designated boundaries and the exceptions from the other scales were borderline. This result indicated that no particular relationship between any two variables was severely misrepresented in the models.

Table 1   Fit Indices for the Measurement Models

Model	χ²/df	SRMR	CFI	RMSEA (CI)
Internal motivators	615.19/360 = 1.71	.07	.95	.07 (.05, .08)
Internal constraints	70.77/48 = 1.47	.06	.97	.06 (.00, .09)
External motivators	186.07/155 = 1.20	.06	.98	.04 (.01, .06)
External constraints	247.56/168 = 1.47	.06	.94	.06 (.05, .08)
Behavioral measures	12.85/8 = 1.60	.06	.99	.05 (.00, .15)

Cronbach's alpha coefficients ranged from .69 to .92 (Table 2), indicating adequate internal consistency, with the exception of No Interest from Others, which was borderline according to the values of .70. The AVE values ranged from .46 to .85 (Table 2), indicating good construct reliability except for Commitment, Location, and the No Interest from Others subscales, which were borderline. Furthermore, no squared correlation between two subscales was greater than the AVE score of either factor (Tables 3–7), showing that items on subscales measured distinct constructs (Fornell & Larcker, 1981), with the exception of Identification with the Team and Identification with the Coach that were not distinct, and Media was not distinct from Promotion. Because these scales and subscales had good internal consistency, construct reliability, and adequately represented the underlying construct, we used them in the following analyses.

Table 2   Factor Loadings (β), Alpha Coefficient (α), and Average Variance Extracted Values (AVE)

Factor and Item	β	α	AVE
Internal Motivators			
Achievement		.92	.79
It increases my self-esteem.	.82		
It enhances my sense of self-worth.	.92		
It improves my self-respect.	.92		
Attachment to the Community		.91	.77
I feel connected to numerous aspects of the (city name) community.	.92		
I feel a part of the (city name) community.	.91		
I support the (city name) community as a whole.	.80		
Attachment to the Coach		.82	.63
I am a big fan of coach (name)	.62		
I would experience a loss if coach (name) was no longer the coach	.96		
Being a fan of coach (name) is very important to me	.76		
Attachment to the Level of Sport		.83	.64

(continued)

Table 2 *(continued)*

Factor and Item	β	α	AVE
I am a fan of the WNBA regardless of who is playing.	.71		
I consider myself a fan of WNBA, and not just one specific team.	.68		
I am a big fan of the WNBA.	.98		
Attachment to the Player		.87	.70
I am more of a fan of the individual players on the team than of the team	.75		
I am a big fan of specific players more than I am more of a fan of the team.	.89		
I consider myself a fan of certain players rather than a fan of the team	.86		
Attachment to the Sport		.84	.69
First and foremost I consider myself a basketball fan.	.54		
Basketball is my favorite sport.	.97		
Of all sports, I prefer basketball.	.92		
Attachment to the Team		.84	.64
Being a fan of (team name) is very important to me.	.77		
I am a committed fan of (team name).	.73		
I consider myself to be a "real" fan of (team name)	.89		
Escape		.87	.70
It provides me with an opportunity to escape the reality of my daily life for a while.	.81		
I can get away from the tension in my life.	.77		
It provides me with a distraction from my daily life for a while.	.93		
Social		.89	.73
I like to socialize with others.	.90		
I like having the opportunity to interact with other people.	.85		
The possibility of talking to other people.	.82		
Support Women's Opportunity		.92	.79
I believe it's important to support women's sport.	.93		
I see myself as a major supporter of women's sport.	.88		
Attending a game demonstrates my support for women's sport in general.	.85		
Internal Constraints			
Lack of knowledge		.92	.80
I don't understand the technical aspects of basketball.	.86		
I don't understand basketball strategy.	.92		

(continued)

Table 2 *(continued)*

Factor and Item	β	α	AVE
I don't understand the rules of the game of basketball.	.91		
Lack of Someone to Attend with		.79	.62
Lack of someone to go to the game with me.	.47		
Lack of friends to go to the game with me.	.96		
Lack of spouse/significant other to go to the game with me.	.85		
Lack of Success		.90	.75
If the (team name) basketball team loses more games than they win.	.86		
If the (team name) basketball team is in the bottom half of the conference.	.87		
If the (team name) basketball team doesn't win many games.	.86		
No interest from others		.69	.46
My family is not interested in going to a (team name) basketball game.	.89		
My spouse/significant other is not interested in going to a (team name) game.	.61		
My friends are not interested in going to a (team name) basketball game.	.47		
External Motivators			
Aesthetics		.71	.53
I enjoy the artistic value.	.62		
I like the beauty and grace of the sport.	.49		
It is a form of art.	.99		
Drama		.80	.61
I prefer close games rather than one-sided games.	.81		
I like games where the outcome is uncertain.	.53		
A tight game between two teams is more enjoyable than a blow-out.	.94		
Media		.84	.52
Newspaper ads for (team name) basketball games.	.74		
(Team name) basketball television commercials.	.80		
(Team name) basketball billboard ads.	.74		
Radio ads for (team name) basketball games.	.71		
Media publicity about (team name) basketball Game.	.60		
Player Behavior		.90	.75
The conduct on the court of individual players	.86		
The behavior of individual players in the community	.97		

(continued)

Table 2 *(continued)*

Factor and Item	β	α	AVE
The personality of individual players	.76		
Promotion		.81	.59
Special promotions.	.77		
Giveaways during the game.	.77		
Pregame events.	.77		
Role Model		.81	.85
The players provide inspiration for girls.	.82		
The players are good role models for young girls.	.97		
The players should be emulated by young women.	.97		
External Constraints			
Commitments		.72	.46
Work commitments.	.64		
Commitments to friends.	.73		
School/studying commitments.	.67		
Cost		.84	.68
The financial cost of going to a game.	.68		
The price of season tickets.	.80		
The price of single game tickets.	.97		
Leisure Alternatives		.88	.73
Attending movies.	.94		
Going to a restaurant.	.89		
Going to a bar.	.71		
Location		.74	.49
Distance I need to travel to get to the arena	.64		
Arena location.	.73		
Accessibility of arena.	.73		
Parking		.76	.52
Accessibility of parking for the arena.	.59		
Ease of parking at the arena.	.79		
Closeness of parking to the arena.	.77		
Participant Sport Alternatives		.81	.69
Exercising.	.90		
Working out.	.96		
Playing recreational sports.	.58		

(continued)

Table 2 *(continued)*

Factor and Item	β	α	AVE
Sport Entertainment		.79	.54
Watching other sports on TV	.87		
Attending a (local professional baseball team name)'s game	.56		
Attending a (local men's professional soccer team name)'s game	.74		
Behavioral Measures			
Attendance		.85	.66
(Team name)'s game attended last season.	.75		
(Team name)'s game attended this season.	.86		
(Team name)'s game that you will attend next season.	.83		
Purchase		.88	.74
I am likely to purchase the (team name)'s merchandise in the future.	.93		
I am likely to buy (team name)'s clothing in the future.	.97		
I buy (team name)' apparel for other people.	.65		

Table 3   Correlations Among Internal Motivators Subscales

	1	2	3	4	5	6	7	8	9	10
1. Achievement	1.00									
2. Coach	.34	1.00								
3. Community	.25	.33	1.00							
4. Escape	.33	.30	.38	1.00						
5. Level	.37	.49	.23	.25	1.00					
6. Player	.12	−.08	−.02	.08	−.04	1.00				
7. Social	.35	.29	.69	..35	.35	−.10	1.00			
8. Sport	.30	.36	.16	.10	.56	.10	.22	1.00		
9. Team	.44	.82	.32	.35	.77	−.12	.51	.56	1.00	
10. Women	.39	.37	.34	.18	.47	.08	.37	.35	.51	1.00

Table 4   Correlations Among Internal Constraints Subscales

	1	2	3	4
1. Lack of Knowledge	1.00			
2. Lack of Success	.15	1.00		
3. Lack of Some to Attend with	.26	−.05	1.00	
4. No Interest from Others	.38	−.02	.14	1.00

Table 5   Correlations Among External Motivator Subscales

	1	2	3	4	5	6
1. Aesthetics	1.00					
2. Player Behavior	.09	1.00				
3. Drama	.02	.11	1.00			
4. Media	.38	.27	.18	1.00		
5. Promotion	.30	.32	.16	.74	1.00	
6. Role Model	.24	.21	.31	.30	.24	1.00

Table 6   Correlations Among External Constraints Subscales

	1	2	3	4	5	6	7
1. Commitments	1.00						
2. Cost	.06	1.00					
3. Leisure Alternatives	.53	.07	1.00				
4. Location	.23	.42	.25	1.00			
5. Parking	−.01	.26	.32	.56	1.00		
6. Participant Sports	.38	.18	.50	.24	.32	1.00	
7. Sport Entertainment	.32	.21	.63	.22	.29	.68	1.00

Table 7   Correlations Among Behavioral Measures

	Attendance	Merchandise
Attendance	1.00	
Merchandise	.44	1.00

Test of Assumptions

No highest or lowest standardized score for DVs and IVs was above 3.29 or below −3.29, which were the suggested cut-off values for potential outliers (Tabachnick & Fidell, 2007). Errors of prediction (residuals) were normally distributed around predicted DV scores and the residuals had almost no correlation with predicted scores, indicating that normality and linearity assumptions were met. The variance of residuals about predicted DV scores tended to be smaller for the larger predicted values, showing the violation of the homoscedasticity assumption. However, no particular remedy was necessary because of the following reasons. First, moderate heteroscedasticity is not fatal to an analysis of ungrouped data including multiple regression, canonical correlation, factor analysis, or structural equation modeling and the linear relationship between variables is captured by the analysis. Next, data transformations, which are typically recommended as a remedy for the heterosce-

dasticity, often increase difficulty of interpretation (Tabachnick & Fidell, 2007). No VIF value exceeded 10.0 and tolerance values showed that collinearity did not explain more than 90% of any independent variable, indicating inconsequential multicollinearity (Hair et al., 1998). This conclusion was also supported when no condition index was greater than a threshold of 30 and no dimension had more than one variance proportion greater than .50 (Belsley et al., 1980).

Test of Hypothesized Relationships

Table 8 displays R, R^2, adjusted R^2, and change statistics of the models. In step 1, Attachment to the Team, which was an internal motivator, entered the equation first, $R^2 = .21$, $\Delta F (1, 113) = 29.06$, $p < .001$. In step 2, Lack of Success, which was an internal constraint, significantly added to prediction of Attendance, $\Delta R^2 = .10$, $\Delta F (1, 112) = 16.19$, $p < .001$. In step 3, Leisure Alternatives, which was an external constraint, significantly added to the prediction of Attendance, $\Delta R^2 = .03$, $\Delta F (1, 111) = 5.38$, $p < .05$. No other variables made a significant contribution in predicting Attendance. After step 3, 34% of the variance in Attendance was explained by Attachment to the Team, Lack of Success, and Leisure Alternatives. When all three IVs were in the equation, Attachment to the Team ($\beta = .44$; Table 9) was positively related to Attendance, and Lack of Success ($\beta = -.25$) and Leisure Alternatives ($\beta = -.19$) both had negative relationships with Attendance (Table 9).

Table 8   Testing of Hypothesized Relationship

IVs	R	R2	Adj. R2	SE	Δ R2	Δ F	df1	df2	Δ sig. F
Team	.45	.21	.20	3.88	.21	29.06	1	113	.00
Team, Lack of Success	.55	.31	.29	3.64	.10	16.19	1	112	.00
Team, Lack of Success, Leisure Alternatives	.58	.34	.32	3.57	.03	5.38	1	111	.02

Table 9   Unstandardized Coefficient(B), Standardized Coefficient (β), Partial Correlations for the Three Significant Predictors.

IV	B	SE	β	t	Sig.	CI for B	Partial
Team	1.48	.26	.44	5.26	.00	.96, 2.00	.47
Lack of Success	−.92	.31	−.25	−2.94	.00	−1.54, −.30	−.27
Leisure Alternatives	−.90	.39	−.19	−2.32	.02	−1.66, −13	−.21

Discussion

The first purpose of this study was to identify unique constraints on sport consumption behavior. To do this, first we had to define constraints for our research purposes. Constraints were defined as factors that negatively influence attendance, whereas motivators were defined as factors that positively influenced attendance. As it became readily apparent, determining whether factors are constraints or motivators depends on the context. A variety of contextual changes might flip a factor from being a constraint to being a motivator or vice versa. For example, consider team performance. If a team has winning record, it is reasonable to expect that team performance has a positive impact on attendance (a motivator). However, if a team has a losing record, the very same factor, team performance, may negatively influence attendance for some people (a constraint). The team investigated in the current study had the second worst record in its conference. For that reason, team performance was labeled as "Lack of Success" to clearly reflect the team's performance and thus was hypothesized to be a constraint. The empirical result supported the hypothesis. Hence, constraints and motivators should be understood in the light of relevant contexts. Furthermore, some constraints and motivators may be two ends of a continuum (e.g., team performance, knowledge). However, some may not be; for example, need for vicarious achievement. A lack of a need for vicarious achievement seems unlikely to be a constraint.

The second purpose of this study was to develop these constraints into a psychometrically sound scale. We identified and created four internal constraint constructs (Lack of Knowledge, Lack of Success of the Team, Lack of Someone to Attend With, and No Interest from Others) and seven external constraint constructs (Commitments, Cost, Leisure Alternatives, Location, Parking, Participant Sports, Alternative Sport Entertainment) that had good construct reliability, internal consistency, and discriminant validity.

The third purpose was to propose an underlying framework and fourth, we wanted to test the proposed model empirically within a spectator sport setting. The proposed model explained 34% of variance in Attendance, which is fairly large for social science research (Cohen, 1988). Results showed that Attachment to the Team, an internal motivator, entered first and explained approximately 21% of the variance in attendance. Lack of Success, an internal constraint, entered next and explained almost 10% additional variance. Leisure Alternatives, an external constraint entered next and explained 3% of the variance in attendance. The results give partial support for the proposed model. As we hypothesized, internal motivators (i.e., Attachment to the Team), internal constraints (i.e., Lack of Success), and external constraints (i.e., Leisure Alternatives) explained unique amounts of variances in attendance. However, no external motivator, which should have had a unique impact on attendance according to our hypothesis, accounted for a significant amount of variance in attendance.

This finding might be explained if the respondents did not perceive that this particular team possessed the attributes listed as external motivators. For example, perhaps people did not perceive that this was a dramatic or aesthetically pleasing team and therefore people were not motivated to attend for those reasons. In addition, perhaps the promotions were not effective and thus people were not motivated to attend for that reason. However, what we found by examining the correlation

matrix of external motivators and attendance (available from the authors) was that some of the external motivators were significantly correlated with attendance (e.g., Players as Role Models), but the predictive power of those constructs were subsumed by previously entered variables (i.e., Attachment to the Team or Lack of Success). This indicates that either there may be interactions among variables that we did not investigate, or that some variables may act as mediators for other variables.

In the current study, internal motivators and internal constraints explained a major portion of variance (31%) in attendance and a much greater amount of the variance than external motivators (not significant) and external constraints (3%). This result supports Crompton et al.'s (2005) notion that internal factors are more influential predictors of leisure participation than external factors. However, the role of external factors should not be disregarded solely based on the findings from this research. This small amount of variance explained by external factors might be true only for the particular team or the sample used in this study, if the above explanation for insignificant external motivators is also applied to external constraints. Thus, the proposed model needs to be retested with different samples and different teams.

The results indicated that fans were motivated to attend a game because they identified with the team. This supports the previous notion that team identification is a key predictor of sport consumption behavior (Cialdini et al., 1976; Sloan, 1989; Wann & Branscombe, 1993). Our finding is inconsistent with Kwon et al.'s (2005) findings that multiple points of attachment other than the team (e.g., the coach, the sport, and the level of sport) accounted for significant amount of additional variance in different aspects of sport consumption behavior such as BIRGing, satisfaction, conative loyalty, and attendance behavior. In the current study, no other points of attachment significantly explained any additional variance after identification with the team. However, the value of including multiple points of attachment to investigate identification with sport teams should not be overlooked solely based on this result because utilizing multiple points of attachment may provide details, which cannot be obtained using a unidimensional measure. The correlation matrix of internal motivators (available from the authors) revealed that identification with the team was highly correlated with coach ($r = .82$), level of sport ($r = .77$), sport ($r = .56$) and these points of attachment were also significantly correlated with attendance (coach, $r = .40$; level of sport; $r = .33$; sport, $r = .29$). This implied that our respondents were identified with the team because they were fans of the coach, WNBA, and basketball, which in combination led them to attend a game. This is information on which sport marketers and managers needs to focus. Based on this knowledge, they can identify the focal points that best appeal to their fans and create marketing communication plans correspondingly for building a bond between a team and fans. For example, the team we investigated in this study needs to realize that the current head coach for the team symbolizes the team to its fans and develop a marketing communication strategy that focuses on promoting the coach.

The results revealed that lack of team success was a significant predictor of sport consumption behavior. This finding is consistent with the previous literature, which also found that team performance influenced attendance in major league sports (Baade & Tiehen, 1990; Whitney, 1988), in minor league sports (Zhang et al., 1997), and in intercollegiate sports (Pan & Gabert, 1997). The direction of the beta coefficient indicated that fans were internally constrained from attending the

team's games when the team was unsuccessful. This supports Snyder, Lassegard, and Ford's (1986) supposition that people dissociate themselves from unsuccessful others to protect their self-esteem. Similarly, team success could be a motivator if the team is a perennial winner. This is consistent with the idea of basking in reflected glory (Cialdini et al., 1976). However, only a moderate association between Lack of Success and attendance was found in this study, which implies that not all the fans necessarily were prevented from attending the team's game when the team was unsuccessful. Thus, sport marketers and sport managers should not be discouraged by poor team performance. It is a constraint, but not an insurmountable one.

From a theoretical standpoint, the model examined here provides researchers a conceptual paradigm for investigating how constraints, in concert with motivators, influence spectators' decisions. From a practical standpoint, the ability to properly evaluate constraints and motivators gives sport managers the opportunity to more effectively serve existing fans, as well as attract new fans. In particular, knowledge of constraints will be essential for a team that struggles to attract fans because poor attendance might reflect that perceived constraints on attending the team's games are more salient to potential spectators than motivators are. Therefore, the team will need to identify influential constraints and to alleviate those constraints through marketing communications. Hopefully, this would alter the spectators' negative perceptions, in addition to actually improving the diagnosed problems.

The sampling procedures, the sample, and the team analyzed presented some limitations for this study in terms of generalizability. As we mentioned earlier in the discussion, we collected the data from a convenience sample of fans who attended a women's professional basketball game and analyzed only one women's professional basketball team. Future research should seek to confirm the proposed model from a random sample with different sports (e.g., basketball, football, soccer, golf) as well as different levels of competition (e.g., major league, minor league, college, high school), and cultures (e.g., North American, European, Asian) to increase the generalizability of the results.

It should be noted that some factors are unambiguously internal to sport consumers but some factors have both internal and external components in nature. For example, it can be generally agreed that Attachment to the Team is truly internal. However, it is not so certain whether Lack of Success is internal or external. Although, a sport consumers' perception of whether a team is successful or not is internal, the perception is obtained on the basis of the team's actual performance, which is external to the individuals. The limitation related to overlapping constructs between internal and external categories might result from the initial and rather general nature of classification used in this study. Therefore, future researchers might need subcategories of internal and external dimensions to more precisely explain the nature of constraints and motivators or the alternative classifications depending on research purposes and contexts.

In addition, this study developed a new framework to explain the sport consumption decision process by incorporating constraints and motivators. Unfortunately, human decision-making processes are quite complex and development of comprehensive sport consumption decision-making model was beyond the scope of the current study. However, the omission of some of key variables (e.g., needs, values, involvement) that are known to influence an individual's decision or choice in the current study might account for a large amount of variance not explained

in present model. Therefore, future research on constraints and motivators should incorporate additional spectator characteristics and situational factors, which play critical roles in sport consumption decisions.

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