

IMPACT OF MARKET DEMAND AND GAME SUPPORT PROGRAMS ON
CONSUMPTION LEVELS OF PROFESSIONAL TEAM SPORT SPECTATORS AS
MEDIATED BY PERCEIVED VALUE

By

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To my family

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LIST OF TERMS

Affect	Psychological orientation that refers to the experience of feeling.
Behavioral Intentions	Behavioral intentions as indications of an individual's willingness toward a given task (Ajzen, 2005).
Cognition	Psychological orientation that refers to the knowing, thought, remembering, and reasoning (Gerrig & Zimbardo, 2002).
Emotional Response	A complex psychological pattern of changes, including physiological arousal, feelings created in response to a situation perceived to be personally significant (Gerrig & Zimbardo, 2002).
Game Amenities	Entertainment and promotional activities provided by a team during an event.
Game Support Programs	Controllable service attributes that are related to game operation programs such as ticket services, stadium services, game amenities, and accessibility to a stadium, all of which to support the enjoyment of a game (Zhang et al., 1998a).
Market Demand	Sport consumers' expectations towards the main attributes of the game itself (Zhang et al., 1995).
Mediation	Indirect effect of an independent variable on a dependent variable that passes through a mediator variable (Edwards & Lambert, 2007, p. 1).
Perceived Value	The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given (Zeithaml, 1988, p. 14).
Service Quality	A form of attitude that results from the comparison of prior expectations with performance (Cronin & Taylor, 1992, p. 56).
Word-of-Mouth	An informal way of passing information by verbal means.

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The purpose of this study was to examine the structural relationship of market demand variables and game support programs to the consumption of professional team sport games while taking into consideration the mediating influence of perceived value. This study simultaneously incorporated market demand (core service) and game support (peripheral service) factors into one study and examined their direct and indirect relationships with game consumption behaviors. A questionnaire that measured market demand of professional team sport games, game support programs, perceived value, consumption intentions, and sociodemographics was responded by a total of 453 research participants at various metropolitan areas and locations, following a community intercept sampling approach (Brenner, 1996). The data set was randomly split into two halves: one for exploratory factor analyses and the other for confirmatory factor analyses and tests of structural relationships among these sets of variables. As a result of the factor analyses, five factors were confirmed for the market demand variables including Home Team, Opposing Team, Game Promotion, Economic Consideration, and Schedule Convenience. A three-factor model of game support programs was generated that consisted of Game Amenities, Ticket Service, and Venue Quality. Furthermore, a unidimensional model was derived for the

perceived value (i.e., Perceived Value for the Cost) and consumption intentions (Behavioral Intentions) sections from the factor analyses, respectively. All measures displayed good psychometric properties in terms of validity and reliability. In the structural relationship analyses, Home Team, Opposing Team, Game Promotion, Game Amenities, and Perceived Value for the Cost were found to be significantly related to Behavioral Intentions for professional team sport games. Venue Quality was the only factor that was found to have an indirect relationship with Behavioral Intentions through Perceived Value for the Cost. The findings of this study revealed the importance for professional sport teams to build a strong and high-quality home team, highlight the merits and competitiveness of both home and opposing teams in their game promotions, adopt multiple means of marketing campaigns, formulate exciting entertainment elements for pre-game, during-game, and post-game shows, and price game tickets in a reasonable manner to ensure consumer affordability.

CHAPTER 1 INTRODUCTION

According to Shank (2005), game attendance is the most traditional and important form of sport consumption behavior in spectator sport, which is defined as any live sport event that is played in front of spectators. Examples of spectator sport include, but are not limited to, baseball, basketball, football, and ice hockey. Spectator sport is distinguished from participant sport in two aspects. First, the main activity and motivation for spectators in a sport event lie in watching a sport competition; whereas, the main activity and motivation for a participant sport is the actual playing of the sport. Second, spectator sport requires some type of confined facilities (e.g., stadium, arena, gym, or field), where spectators can watch the athletic performance and competition. Nevertheless, a chaste participant sport such as hunting does not necessarily require any venue for paid spectators (Shank, 2005).

Chelladurai (1999) classified the sport industry into three segments: (a) sport economic activities, (b) spectator sports, and (c) participant sports. This researcher noted that spectator sport had been the fastest growing segment within the sport industry and further estimated that this sector alone was a \$50 billion industry in terms of annual business transactions. Other researchers have also recognized the continued growth of spectator sport in North America by pointing out that spectator sport has become an increasingly important type of leisure behaviors of Americans (Ross & James, 2006; Trail, Anderson, & Fink, 2005). The rapid and vast growth of professional sport teams in North America is also evidence of the immense interest in spectator sports. According to Frank (2000), 67% of the U.S. population referred to themselves as fans of the National Football League (NFL), 62% of the U.S. population indicated that they were rooting for Major League Baseball (MLB), and 54% reported that they were National Basketball Association (NBA) fans. Masteralexis, Barr, and Hums (2008) indicated that as of

2007, a total of 149 franchise teams belong to the five major professional sport leagues: MLB, NFL, NBA, the National Hockey League (NHL), and Major League Soccer (MLS). This figure does not include teams in less-prominent professional sport leagues such as the Arena Football League (AFL), Women's National Basketball Association (WNBA), and many other major and minor league teams. The augmentation of spectator sports has been also confirmed through attendance and media viewership rates. In the year of 2003-2004, approximately 476 million people attended spectator sport events in North America. In 2003, NFL games were played in front of more than 17 million fans that attended games at 95% of stadium capacity on average. A similar trend has been observed in international competitions as well; for example, the 2002 World Cup soccer tournament in Korea and Japan was televised to over 200 countries during 30 days of competition, drawing approximately 28.2 billion cumulative viewers (Hyundai Economic Institute, 2002). Brandt (2004) reported that approximately 137 million television viewers watched the 2004 Super Bowl. The same phenomenon is also true in Division I men's basketball and football, which are considered to be the two main revenue producers for collegiate athletic departments (Fulks, 2003). In 2005, nearly 1.3 million people watched March Madness college men's basketball games online (Rein, Kotler, & Shields, 2006). According to Fulks, the average percentages that Division-I men's basketball and football contributed to the income of Division I athletic programs in 2003 were 70% (\$13 million) and 23% (\$4.3 million), respectively. The increasing popularity of spectator sport has led to the establishments of new leagues, teams, and multimedia outlets, which has not only provided more spectating options for sport consumers but also created greater competitions among various leagues and teams for consumer's choice. Due to a crowded sport marketplace, sport consumers now have many options with which to spend their time and discretionary dollars. As a result, professional sport organizations

have faced increasing competitions for gaining market share. Mullin, Hardy, and Sutton (2007) stated that “competition for sport dollar is growing at the pace of a full-court press” (p. 7) to describe the intensity of the competitive sport marketplace. A recent ESPN sports poll asked a sample of residents in North America if they were still considered themselves a fan of the sports of which they had originally become a fan. The poll indicated that eight out of 10 professional sports were losing their fans drastically. The two sports that gained positive scores were auto racing and golf (Mullin et al., 2007). According to Rein et al. (2006), there are five potential reasons for the growing challenges of attracting and retaining sport consumers within the sport industry. First, there are too many sport-related product options available to sport consumers. As indicated above, there are numerous professional sports, intercollegiate sports, interscholastic sports, and even youth sport events being held on a regular basis across the United States. The second reason is due to constrained leisure time for people in America. Today, Americans spend on average 19 hours per week for leisure activities in 2004 compared to its 26 hours in 1973. The third reason is due to the expensive cost of becoming a sport fan. For instance, in order to attend a professional sport event, a family of four people would typically spends \$164 for a MLB game, \$247 for a NHL game, \$263 for a NBA game, and \$330 for a NFL game. The fourth reason is due to the proliferation of increased media outlets. In addition to traditional media such as television and radio, the Internet has become a mass medium. In 2005, more than two thirds of all Americans were able to access the Internet at home. Moreover, increasing availability of satellite and cable television allows sport consumers to enjoy watching major sport events at home or sports bars and restaurants. Mullin et al. (2007) stated that “ESPN capitalized on this niche programming by offering nothing but sports 24 hours a day” (p. 370). Lastly, people’s discretionary money is increasingly spent in recreational activities (e.g., bowling, skating, and

golf) and other entertainment activities such as sport video games, movies, and concerts rather than professional sport events (Shank, 2005). This notion has also been confirmed by an empirical study (Zhang et al., 1997b), which found substitute forms of other entertainment businesses (e.g., movies, concerts, recreational activities, television, restaurants, and night clubs) had considerable negative influences on game attendance at minor league hockey games.

As market competitions are becoming more intensified in professional sports, it is important for both academicians and practitioners to understand game consumption related variables so as to improve the quality of product offering and to enhance competitiveness of sport product(s) and services. Previous studies examining game consumptions related variables have often been conducted from the following two perspectives: market demand (Zhang, Lam, & Connaughton, 2003a; Zhang, Pease, Hui, & Thomas, 1995) and game support programs (Zhang, Lam, Connaughton, Bennett, & Smith, 2005a; Zhang et al., 2004a; Zhang, Smith, Pease, & Lam, 1998a). In previous studies, some researchers captured these two concepts under a general concept of sport service quality (Greenwell, Fink, & Pastore, 2002; Zhang, Connaughton, & Vaughn, 2004b). With this collective approach, variables directly related to athlete/team performance are termed as core service (Mullin et al., 2007) and variables related to event operations and game promotions are referred as peripheral service (Van Leeuwen, Quick, & Daniel, 2002). Another approach to study game consumption related variables has separated variables of game support programs from those variables primarily related to athlete/team performance (Zhang et al., 1995, 1998a). Although the two approaches are not drastically different, the disparity is that the collective approach tends to solely rely on service quality theories as the theoretical framework to examine all game consumption related variables. Conversely, the separated approach adopts different theoretical concepts to study market demand

variables and game support programs. This approach focuses on in-depth and systematic analyses of specific team performance and game operation variables for the purpose of guiding the development of meticulous marketing and promotion strategies (Zhang et al., 2003a).

According to Mullin et al. (2007) and Zhang et al. (1995), the core product in spectator sport is the game itself. Following an extensive literature review on factors influencing game attendance variables, Schofield (1983) proposed four market demand categories including demographic variables, economic variables, game attractiveness, and residual preference. Greenstein and Marcum (1981) and Jones (1984) focused their studies on game production functions and found that team performance variables, such as winning/losing record and presence of star player, were related to game attendance. Synthesizing key game demand variables and production functions, Zhang et al. (1995) proposed the systematic concept of market demand, which was defined as the spectators' expectations towards the main attributes of the core product (i.e., game itself). Braunstein, Zhang, Trail, and Gibson (2005) further explained that market demand was a set of essential constructs associated with the game that a sport team could offer to its existing and prospective consumers. Unlike other business merchandise, the core product of sport games is unique in that team marketers and management personnel can hardly control the core product once a sport team's roster is finalized.

A theoretical justification for the market demand can be partially attributed to the Theory of Reasoned Action proposed by Fishbein and Ajzen (1975). This theory postulated that human behavior was a direct consequence of behavioral intentions, which were functions of attitude and subjective norm. Several researchers have found that attitude construct was found to have more explanatory power in accounting for behavioral intentions when compared to that of subjective norm (Stutzman & Green, 1982; Warshaw, Calantone, & Joyce, 1986). Other researchers have

also indicated that a strong attitude toward a certain object or phenomenon could act as powerful heuristics that positively direct consumer behavior (Fazio, Powell, & Williams, 1989). When a sport consumer holds a positive attitude toward the attributes of game product such as home team/athlete performance, and/or game schedule, the positive attitude tends to be transformed into attendance and re-attendance behaviors.

Numerous studies on sport market demand have been conducted to examine the predictability of game attendance (Zhang et al., 1995, 2003a, 2004a) and fan satisfaction (Greenwell et al., 2002; Madrigal, 1995). Involving a sample of spectators of NBA regular season games, Zhang et al. (1995) found that four factors (home team, opposing team, game promotion, and schedule convenience) were related to game attendance. Zhang et al. (2003a) conducted a study to examine the general market demand variables associated with the consumption of professional sport events. Game attractiveness and economic consideration factors were found to be predictive of the general consumption of professional sport games. In a study examining game consumption of a NFL expansion team, Zhang et al. (2004a) found that game attractiveness, economic consideration, and game promotion factors were positively related to game consumption. Madrigal (1995) found that through affective reactions such as Basking in Reflected Glory (BIRG) and enjoyment, the quality of opponent had a positive relationship with consumer satisfaction of the game. Likewise, in a study conducted by Greenwell et al. (2002), home team and opposing team were found to exert positive influence on a spectator's overall satisfaction of game attendance experience.

Zhang et al. (1998a) defined game support programs as controllable service attributes that are related to game operations, such as ticket services, stadium services, game amenities, and facility accessibility, all of which are to support the provision and enjoyment of a spectator event.

The quality of these event operation activities can usually be controlled by team management and marketers before, during, and after the event. Zhang et al. (1998a, 2004c) indicated that the game support programs often affect the consumption behavior of spectators. During game operations, focusing on these controllable variables is apparently more important for the team management in order to enhance the game experience of spectators (Mullin et al., 2007; Murray & Howat, 2002).

Studying the quality of game support programs have usually followed various service quality related theories, such as Grönroos' (1984) two-component theory of service quality and Bagozzi's (1992) appraisal-emotional response-coping framework. Grönroos (1984) proposed the 'Nordic model', which was a service quality model that consisted of two components: technical quality and functional quality. Technical quality was related to the outcomes of the service, reflecting the tangible aspects of service. Functional quality was related to intangible aspects, such as consumers' perceptions of the delivery process. Bagozzi's (1992) appraisal-emotional response-coping framework suggested that preliminary appraisal in the evaluation of service quality lead directly to positive consumer behavior. The model posits that the relationship between appraisal and behavior can also be mediated by emotional response derived from the initial appraisal. When a sport consumer is satisfied with service encounters as he/she attends a sport event, the positive evaluation tends to drive future attendance.

Despite the recognized importance of game support programs, only a small number of studies have focused on these variables (Greenwell et al., 2002; Wakefield & Blodgett, 1996; Zhang et al., 1998a, 2004b, 2004c). Zhang et al. (1998a) conducted a study to examine the influence of game support programs on game attendance of minor league hockey games. The researchers found that game amenities and ticket service factors were significantly ($p < .05$)

related to game attendance. Zhang et al. (2004b) examined the predictability of game support programs of NBA regular season games on game attendance. The results of this study indicated that game amenities, arena accessibility, audio visual, and ticket services were positively predictive of game attendance. To investigate the influence of special programs and services for NBA season ticket holders, Zhang et al. (2004c) studied those programs and services designed for offering added values to season ticket holders. The researchers found that those special programs and services were effective in retaining professional sport consumers of the highest ticket/consumption levels. Wakefield and Blodgett (1996), in a study that examined the influence of sportscape (stadium quality) on fan attendance intention, found that all of the game operation variables had positive relationship with repatronage intention and customer retention. Greenwell et al. (2002) supported Wakefield and Blodgett's notion by finding that the perceptions of stadium quality factors significantly predicted spectator's overall satisfaction of minor league hockey games.

A number of limitations have been identified in previous studies related to market demand and game support programs. First, studies adopting the collective approach tended to examine market demand and game support program variables in a general and superficial manner. Only a small segment of variables were included in these studies and the included variables were usually a part of a larger study that attempted to examine many, if not all, variables related to the marketing of sport events. Although the findings of these studies have provided insights on the importance of studying market demand variables and game support programs, the studies were partial, non-systematic, and overall superficial. Specific marketing implications can hardly be drawn from these studies. Second, although studies adopting the separated approach were more systematic and in-depth, and provided specific information on team formation, team performance,

and game operations, variables related to the core product and the game support elements were rarely examined simultaneously. Consequently, sport marketers' decisions tend to be made on either provision of core product or game support programs, rarely both. Third, previous studies overlooked the potential influence of other socio-psychological variables, such as perceived value of game product, when studying the relationship between game product-related marketing variables and game consumption (Murray & Howat, 2002). In recent years, a great number of studies have been conducted to examine spectator consumption behavior from such socio-psychological perspectives as fan motivation (Funk, Mahony, Nakazawa, & Hirakawa, 2001; Pease & Zhang, 2001; Trail & James, 2001; Wann, 1995) and team identification (Heere & James, 2007; Trail, Fink, & Anderson, 2003; Wann & Branscombe, 1993; Wann & Pierce, 2003). Although market demand variables, game support programs, socio-psychological variables, and sociodemographic variables have been found to explain about 50% variances collectively (Zhang et al., 2007), a significant portion of game consumption variance remains unexplained.

Researchers have attempted to identify additional variables with explanatory power on game consumption behavior, particularly those that may interact with market demand variables, game support programs, and spectator motivation variables. Perceived value (Kwon, Trail, & James, 2007; Murray & Howat, 2002) is one set of those variables that have been identified as a salient variable for spectator consumption behavior. Zeithaml (1988) defined perceived value as consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received (quality and benefit) and what is given (perceived value for the cost and non-monetary price). Netemeyer et al. highlighted that "perceived value for the cost was considered a cornerstone of the most consumer-based-brand-equity frameworks" (p. 211). Perceived value has been found to be one of the most important variables in predicting consumption behavior (Bolton

& Drew, 1991; Chang & Wildt, 1994; Dodds, Monroe, & Grewal, 1991; Zeithaml, 1988). Bolton and Drew (1991) even indicated that perceived value is a richer measure of a customer's psychological evaluation than perception of service quality. These researchers suggested that perceived value plays a key role in connecting the perceived service quality with behavioral intentions. A number of studies have been conducted to examine the influence of perceived value on consumption behavior in the general marketing and consumer research (Chang & Wildt, 1994; Parasuraman & Grewal, 2000). Often, perceived value was identified as a mediator in the relationship between service quality and behavioral intentions (Oh, 1999; Zeithaml, 1988). Chang and Wildt found a hierarchical relationship among perceived price, perceived service quality, perceived value, and purchase intentions. Perceived value was found to be a direct antecedent of purchase intentions. Parasuraman and Grewal supported the hierarchical relationship by finding that perceived service quality directly influenced perceived service value, which in turn affected customer loyalty. In an experimental study, Dodds et al. (1991) further confirmed the hierarchical relationships among service quality, perceived value, and purchase intentions, indicating that perceived value was positively related to the willingness to buy. Overall, considerable evidence supports the important role of perceived value as an intervening factor in the relationship between service quality and consumption behavior (Cronin, Brady, Brand, Hightower, & Shemwell, 1997).

Despite the highly recognized importance of perceived value on consumption behavior, little research attention has been devoted to examining the effect of perceived value on sport consumption (Kwon et al., 2007; Murray & Howat, 2002). Murray and Howat were among the first researchers to examine the effect of perceived value on future consumptive intentions for a leisure center. The result of a path analysis revealed that the perceived value had a direct

relationship with future intentions as well as indirect relationship with the future intentions through satisfaction. Recently, Kwon et al. (2007) examined the role of perceived value on purchase intentions of team-licensed merchandise and found that perceived value played a mediating role in the relationship between team identification and purchase intentions. These two studies provided empirical support for including perceived value variables when studying sport consumption behavior. Similarly, Tsuji, Bennett, and Zhang (2007) highlighted the need for investigating the effect of perceived value when examining relationship between service quality and behavioral intentions as well as indirect relationship with the future intentions through satisfaction.

Statement of Problem

Kotler and Armstrong (1996) indicated that the cost for retaining existing customers is generally five times lower than attracting prospective customers. One area that is in great need of retaining spectators is professional sport teams, as teams have been losing their fans drastically because the marketplace has become very competitive (Mullin et al., 2007; Rein et al., 2006). It is imperative for team management and marketers to identify those variables that directly and indirectly affect game consumption (Hansen & Gauthier, 1989; Zhang et al., 1995).

Understanding what makes spectators decide to return to the game, and how they refer the game product and service received to others such as family members, friends, and community constituents is important for teams to better understand spectator consumption behavior and accordingly formulate an effective marketing mix (i.e., product, price, place, and promotion).

Findings of previous studies revealed that market demand variables and game support programs were salient variables in explaining sport spectator consumption behavior (Kwon et al., 2007; Murray & Howat, 2002; Wakefield & Blodgett, 1996; Zhang et al., 1995, 1998a, 2004b). However, these two concepts have usually been studied independently (Cronin & Taylor, 1992;

Ko & Pastore, 2005; Parasuraman, Zeithaml, & Berry, 1998; Wakefield & Sloan, 1995; Zhang et al., 1995, 2004c). Although previous researchers recognized the importance of market demand variables and game support programs when marketing professional sport games, only a small number of studies have examined both sets of variables simultaneously (Greenwell et al., 2002; Tsuji et al., 2007; Zhang et al., 2004c). Of those studies containing both concepts, oversimplicity was a major issue. Previous studies tended to adopt general measures derived from consumer satisfaction studies in the context of main stream business, failing to take into consideration special characteristics of professional sport events. In fact, context-specific measures have been recommended (Carman, 1990). It is critical for a research investigation to incorporate the uniqueness and special characteristics of the core product, product extensions, and market environment (Mullen et al., 2007; Zhang et al., 2003b). Additionally, previous studies have revealed that only a small portion of game attendance variance (i.e., less than 50%) were explained by market demand variables and game support programs although their importance were undoubtedly confirmed by numerous researchers (Greenwell et al., 2002; Tsuji et al., 2007; Wakefield & Blodgett, 1996; Zhang et al., 1995, 1998a, 2004b). Low variance explanation may be due to the overlook of the potential influence of some mediating variables, such as perceived value, on the relationship between sport production and game consumption. McDougall and Levesque (2000) provided a good explanation on the need to study perceived value as an intermediate concept when conducting consumer behavior studies:

Consider the situation where customers may be “satisfied” with “what was delivered and how the service quality was delivered, but may not have felt they got their money’s worth. If perceived value is a driver of intention and the managers exclude this measure in their

model, they would attempt to improve intention through improvements in only service quality. The results of these tactics would have a minimal effect on intentions (p. 395). Therefore, studying game product variables and perceived value simultaneously is critical to gaining a more comprehensive understanding of what influences spectators to repatronage the game and how they conduct word-of-mouth promotions. From an analytical perspective, Bagozzi (1980) argued that one reason for model misspecification in marketing research is due to omitting important variables from the model. To fill the void, the purpose of the study was to examine the structural relationship of market demand variables and game support programs to the consumption of professional team sport games while taking into consideration the mediating influence of perceived value.

Hypothesized Research Model

Deducted from a comprehensive review of literature, this study examined the hierarchical relationship among market demand, game support, perceived value, and behavioral intentions. This conceptual model is illustrated in Figure 1. As in a number of previous studies, market demand, game support programs, and behavioral intentions were conceptualized as multi-dimensional measures. More specifically, the concept of market demand was represented by six factors: Home Team, Opposing Team, Love of Professional Team Sport, Economic Consideration, Game Promotion, and Schedule Convenience (Braunstein et al., 2005; Greenstein & Marcum, 1981; Jones, 1984; Schofield, 1983; Zhang et al., 1995, 2003a). Game support programs consisted of four factors: Ticket Service, Game Amenities, Stadium Service, and Stadium Accessibility (Greenwell et al., 2002; Wakefield & Blodgett, 1996; Zhang et al., 1998a, 2004b, 2004c).

The concept of perceived value was represented by a unidimensional factor, Perceived Value for the Cost, as suggested by previous researchers (Kwon et al., 2007; McDougall &

Levesque, 2000; Murray & Howat, 2002; Netemeyer et al., 2004). While acknowledging its multidimensional aspects, previous studies (i.e., Kwon et al., 2007; McDougall & Levesque, 2000; Murray & Howat, 2002; Netemeyer et al., 2004) have consistently found that the utilitarian aspect, namely Perceived Value for the Cost, was the most relevant perceived value factor that affected sport consumption behavior (Kwon et al., 2007). Furthermore, Netemeyer et al. (2004) argued that Perceived Value for the Cost was overall the best candidate for representing global perceived value measure in consumer behavior research. Kwon et al. supported Netemeyer et al.'s notion by emphasizing that a sport consumer tended to weigh the cost versus the benefit (i.e., Perceived Value for the Cost) to determine perceived value of team-licensed product. Thus, to be consistent with the empirical evidence, the current study adopted the unidimensional aspect (i.e., Perceived Value for the Cost) to measure perceived value.

Behavioral intentions were initially composed of two factors: Repatronage Intentions and Recommend to Others, using Söderlund (2006) and Zeithaml, Berry, and Parasuraman's (1996) behavioral intentions scales. The importance and relevance of repatronage have been stressed by numerous scholars (Kotler & Armstrong, 1996; Mullin et al., 2007; Rein et al., 2006). Zeithaml et al. (2006) stated that "among the most important generic behavioral intentions is willingness to recommend the service to others and repurchase intent" (p. 149).

All measurement models are presented in Figures 1-2, 1-3, 1-4, and 1-5, respectively. By following the conceptual model in Figure 1-1 and related research findings of previous studies, a structural model was proposed in the context of professional team sports, where market demand factors (core service) and game support factors (peripheral service) were hypothesized to directly influence behavioral intention factors. The market demand and game support factors were also hypothesized to indirectly affect behavioral intention factors through the perceived value factor

(i.e., Perceived Value for the Cost). The structural model is presented in Figure 1-6, where market demand and game support factors were allowed to be correlated. Specifically, the following hypotheses were tested in this study:

- **Hypothesis 1:** Home Team would have a direct influence on the behavioral intention factors.
- **Hypothesis 2:** Opposing Team would have a direct influence on the behavioral intention factors.
- **Hypothesis 3:** Love of Professional Sport would have a direct influence on the behavioral intention factors.
- **Hypothesis 4:** Economic Consideration would have a direct influence on the behavioral intention factors.
- **Hypothesis 5:** Game Promotion would have a direct influence on the behavioral intention factors.
- **Hypothesis 6:** Schedule Convenience would have a direct influence on the behavioral intention factors.
- **Hypothesis 7:** Game Amenities would have a direct influence on the behavioral intention factors.
- **Hypothesis 8:** Ticket Service would have a direct influence on the behavioral intention factors.
- **Hypothesis 9:** Stadium Service would have a direct influence on the behavioral intention factors.
- **Hypothesis 10:** Stadium Accessibility would have a direct influence on the behavioral intention factors.
- **Hypothesis 11:** Perceived Value for the Cost would have a direct influence on the behavioral intention factors.
- **Hypothesis 12:** Market demand factors would have an indirect influence on the behavioral intention factors through Perceived Value for the Cost.
- **Hypothesis 13:** Game support factors would have an indirect influence on the behavioral intention factors through Perceived Value for the Cost.

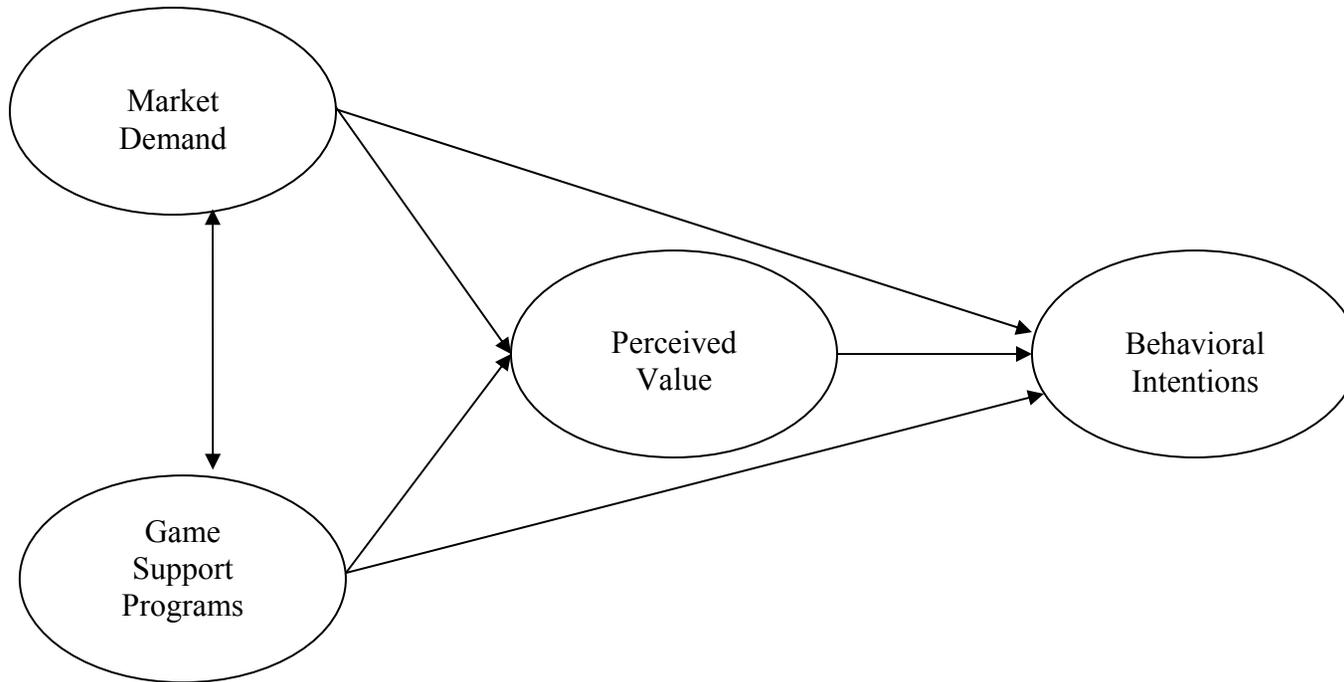


Figure 1-1. Conceptual framework of market demand, game support programs, perceived value, and behavioral intentions

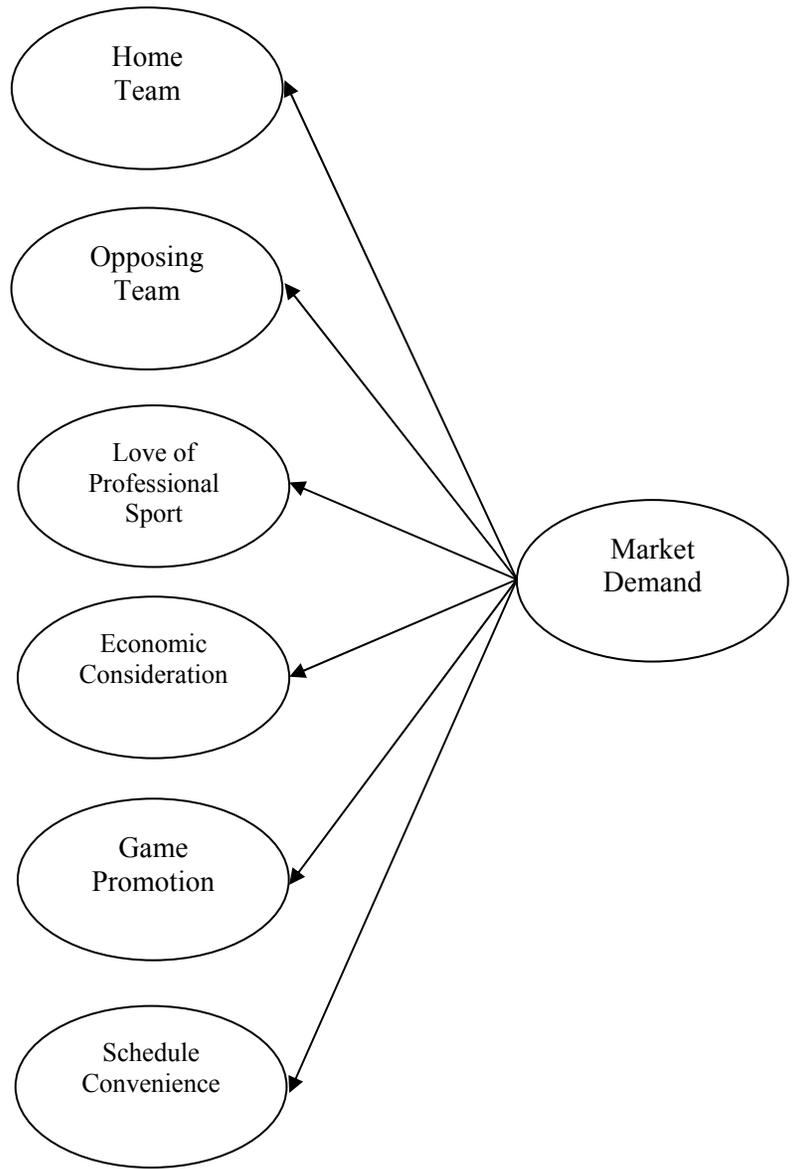


Figure 1-2. Six dimensions of market demand

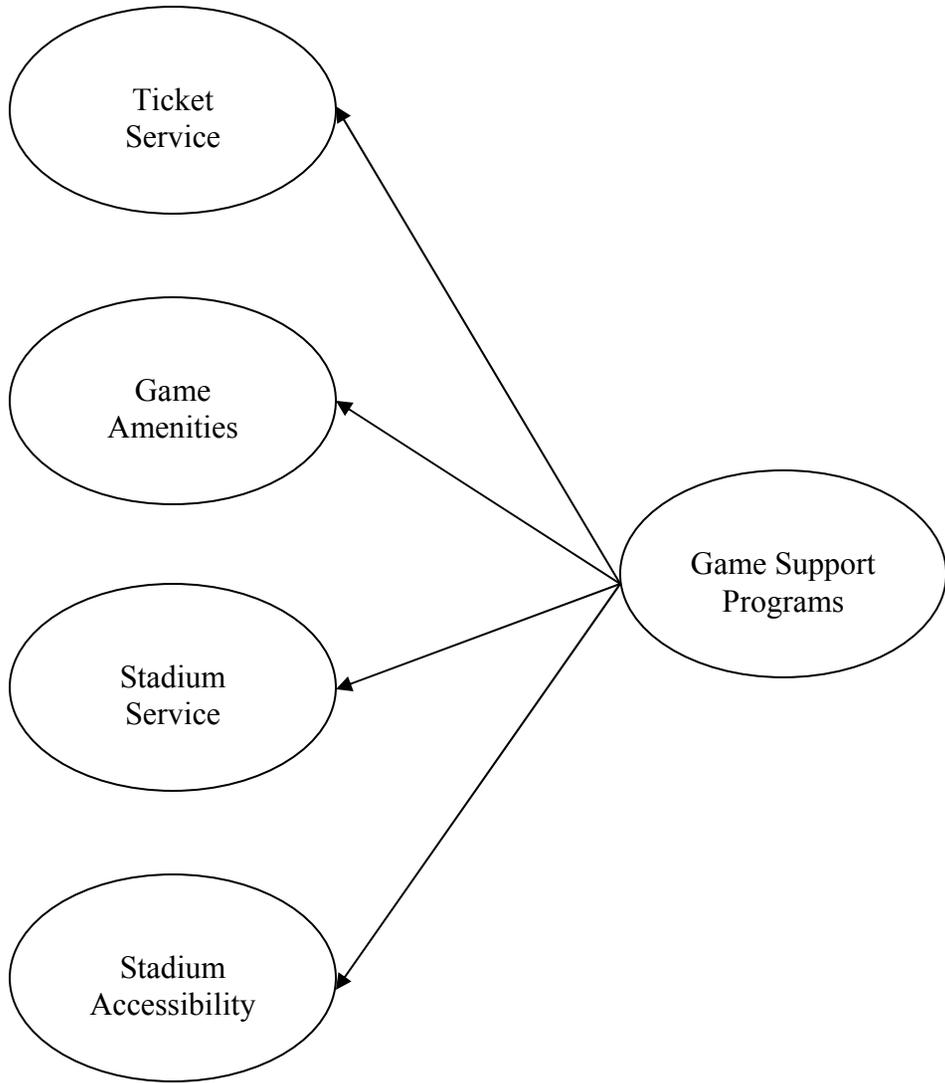


Figure 1-3. Four dimensions of game support programs

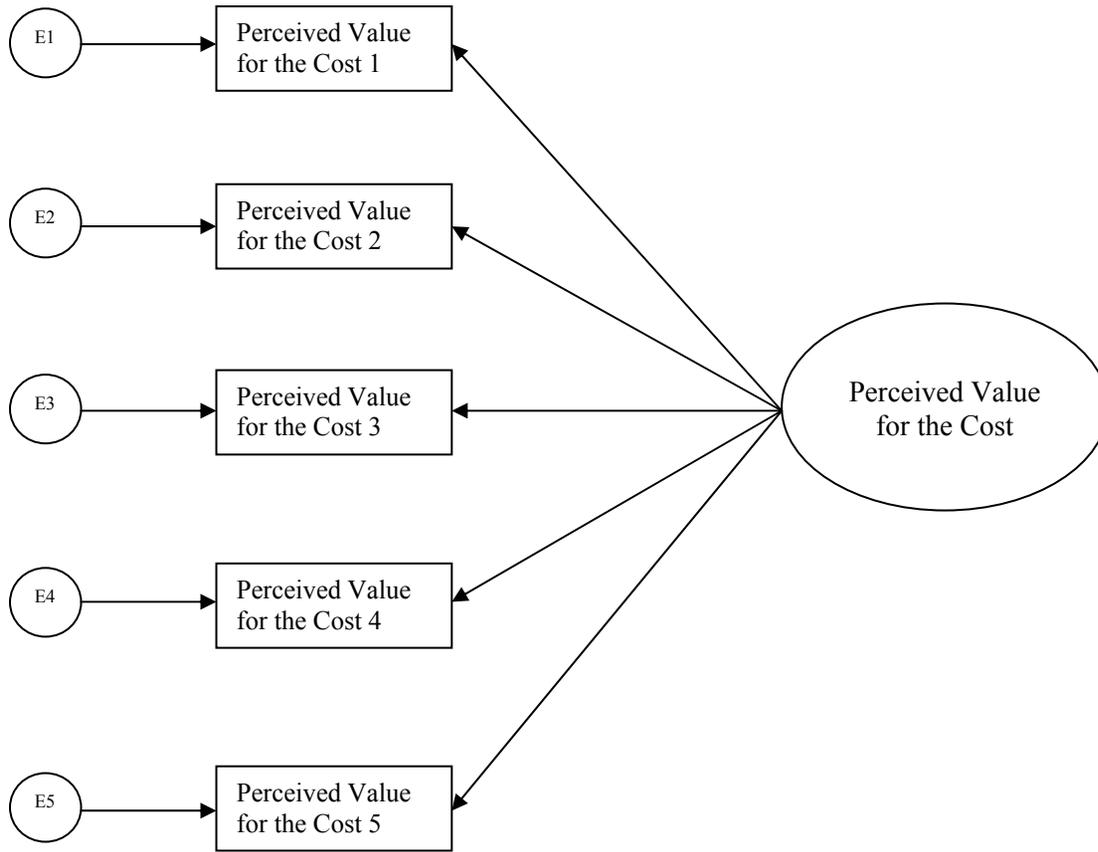


Figure 1-4. Uni-dimension of perceived value

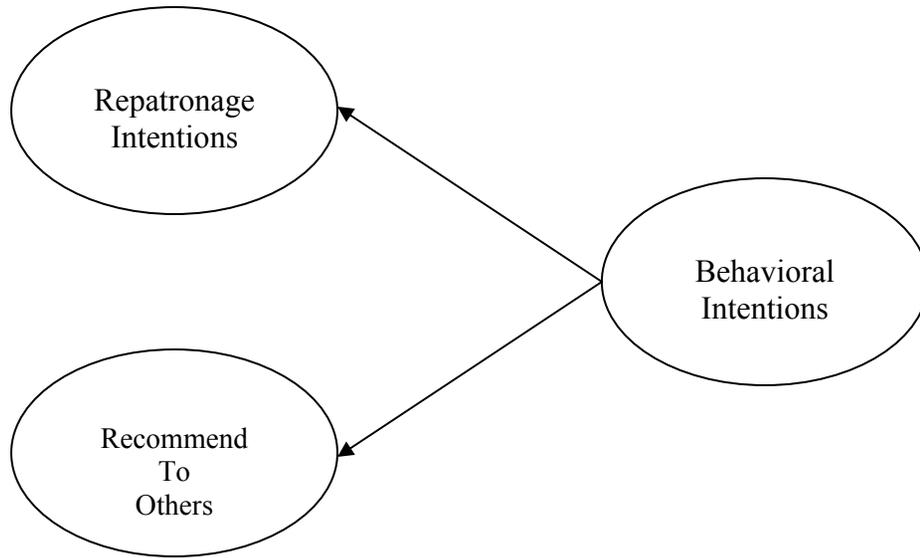


Figure 1-5. Two dimensions of behavioral intentions

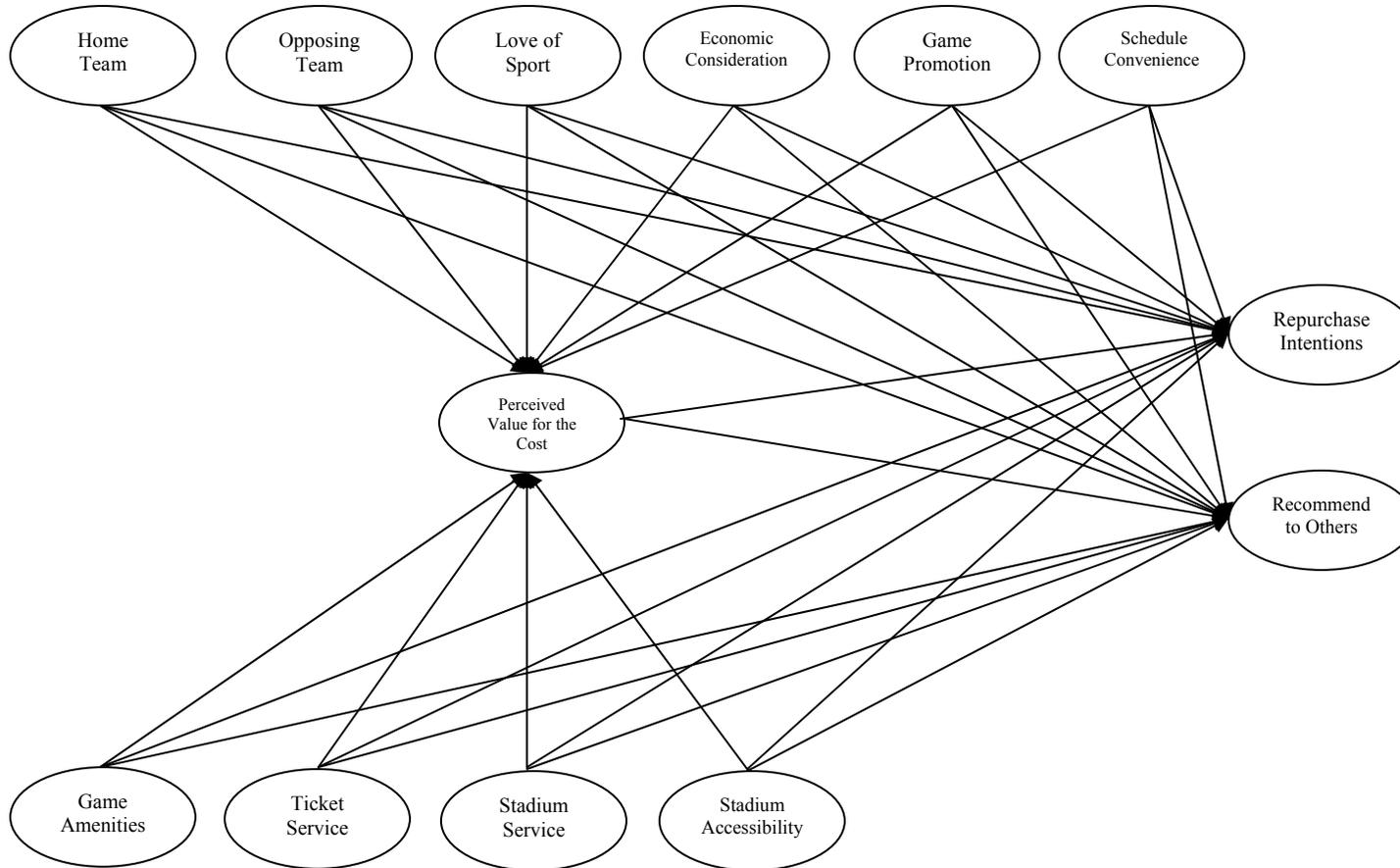


Figure 1-6. Proposed structural relationships among market demand, game support, perceived value for the cost, and behavioral intentions

Significance of the Study

As market competitions increase in professional team sports, team management and marketers need to develop strategic marketing plans that are based on in-depth understanding of consumers. It is critical for them to identify those variables contributing to sport consumption and how they function together to accomplish a team's marketing objectives. In recent studies, market demand, game support, and perceived value factors have been found to have significant effects on customer's repatronage intentions and referral behaviors (Kwon et al., 2007; Murray & Howat, 2002; Wakefield & Sloan, 1995, Zhang et al., 1995, 2004c). However, these concepts have primarily been examined fragmentarily, making the practical implications partial and of limited usage (Cronin & Taylor, 1992; Parasuraman et al., 1998; Wakefield & Sloan, 1995). This study incorporated all of these sets of constructs altogether and in the meantime; their interactive relationships were also examined. By taking into considerations the unique aspects of professional team sports and the multidimensionality of these concepts, it was expected that research findings would have a greater applicability to the marketing of professional team sport events. Many researchers suggested that greater insight would be achieved for practitioners from utilizing the multidimensional constructs (Greenwell et al., 2002; Parasuraman et al., 1988, Zhang et al., 1995).

It was anticipated that the research findings would fill the void in the literature by building linkages from market demand and game support to perceived value, and then to behavioral intentions. When these relationships were found to exist, they would serve as a foundation for researchers to establish a hierarchical theory that supports the notion that successful game product and high service quality offered by a professional sport team enhances perceived value, and eventually leads to repeating consumption behaviors of sport consumers. Gaining an in-

depth understanding of the relationships among these constructs would also enable team management to identify specific constructs that have the most impact on spectator consumption behaviors and thus to formulate and implement plans to adjust and improve team formation, game tactics, event operations, and promotional strategies. The current study was initiated based on a premise that the main goal of sport organizations is to offer quality game product and high service quality to satisfy consumers' experiences. This provision would help sport consumers to form a positive perceived value of the game products and services in order to enhance the probability that those sport consumers would engage in repatronage and recommendation of the game products and services.

Delimitations

The study was completed within the following delimitations:

- Research participants were those who attended a professional team sporting event within the past 12 months of the time that the survey was conducted and had purchased the game ticket.
- Research participants were those who resided in southeastern states in U.S.
- Research participants involved men and women over the age of 18.
- The study was conducted via a paper-and-pencil questionnaire.
- Research participation in the study was voluntary.
- Data were collected in the summer of 2008.

Limitations

The following limitations are recognized by the researcher, which might have affected the internal and external validity of the study:

- Although all research participants were asked to respond to the questionnaires with sincerity and honesty, their actual level of cooperativeness could not be fully controlled by the researcher.

- The generalizability of the study findings might be limited to only two southeastern states (i.e., Florida and Georgia) in U.S.
- Voluntary participation, instead of a random selection of research participants, may affect the generalizability of the research findings.
- Although sample size of the current study was adequate for SEM (Wetson & Gore, 2006), factor structures and causal relationships derived were not cross-validated by additional independent sample.

CHAPTER 2 LITERATURE REVIEW

Sport Spectator Consumption

Consumers' behavioral loyalty is often shown via product/service consumption (Baker & Crompton, 2000), having a direct impact on an organization's financial profitability (Zeithaml et al., 1996). Sport consumption behavior is not an exception. Broadly speaking, two forms of sport spectator consumption have been identified: active and passive sport consumption. Active sport spectator consumption takes the form of game attendance (Zhang et al., 1995, 1997b) and the purchasing of licensed merchandise products (Kwon et al., 2007). On the other hand, passive sport spectator consumption refers to consumption activities through modes of various media such as game watching, game listening, and game reading (Fink, Trail, & Anderson, 2002; Gantz, 1981). In the following section, more elaboration on defining sport spectator consumption and how sport spectating has been measured will be presented.

Definition of Sport Spectator Consumption

In the field of sport management, there have been two views in defining a sport consumer: micro-view and macro-view. In the micro-view, sport consumers are divided into two categorizations: spectators and fans (Sloan, 1989; Trail, Robinson, Dick, & Gillentine, 2003). Sloan separated the term spectator from fan by defining spectator as an individual who is merely a game observer, whereas a fan is an individual who enthusiastically follows his/her favorite teams. In the macro-view, a sport spectator is defined as an individual who attends a sport venue to watch a sport event. Therefore, the term, sport spectator, is an encompassing word that consists of sport fans as well (Funk & James, 2001). Based on the macro-view, sport spectator consumption is defined as the act of attending a sport event for the specific purpose of watching the sport event in a given venue (Parks et al., 2007). However, it has been argued that accurately

measuring actual consumption behavior is a challenging task because surveys can hardly be made at the moment of purchase (Cronin, Brady, & Hult, 2000). As an alternative measure, researchers have used a construct of behavioral intentions (Eggert & Ulaga, 2002; Fink et al., 2002; Oh, 1999; Petrick & Backman, 2002a). Various researchers have found that measuring behavioral intentions allows a highly accurate prediction of ensuing behaviors (Ajzen, 1971; Conner, Sheeran, Norman, & Armitage, 2000; Sheeran, Orbell, & Trafimow, 1999). Ajzen (2005) defined behavioral intentions as indications of an individual's willingness toward a given task. Thus, it could be said that the stronger the intention an individual has, the more likely the individual is to perform the intended action.

Measurement of Behavioral Intentions

Although behavioral intentions may change over time due to unforeseeable events or time intervals, in general, behavioral intentions have been regarded as an immediate antecedent of actual behavior in the fields of marketing (Cronin et al., 1997; Grewal, Monroe, & Krishnan, 1998b; Patterson & Spreng, 1997; Zeithaml, et al., 1996), tourism and hospitality (Baker & Crompton, 2000; Lee, Yoon, & Lee, 2006; Oh, 1999; Petrick, 2003, 2004a; Petrick & Backman, 2002a), and sport management (Kwon et al., 2007; Murray & Howat, 2002; Trail et al., 2003; Tsuji et al., 2007; Wakefield & Blodgett, 1996; Wakefield, Blodgett, & Sloan, 1996; Wakefield & Sloan, 1995).

In marketing and consumer behavior research, two forms of measuring behavioral intentions have been identified: unidimensional and multi-dimensional measurement. In terms of the unidimensional measurement, variables such as purchase intentions repurchase intentions, and/or word-of-mouth intentions, have been frequently used as either a multi-item or single-item measure. For instance, Cronin et al. (1997, 2000) measured purchase intentions using three items

to examine the relationships among service quality, perceived value, and purchase intentions in the context of six service industries. Patterson and Spreng (1997) adopted the unidimensional approach to measure repurchase intentions in the context of business-to-business service. In an attempt to predict golf travelers' consumption behavior, Petrick and Backman (2002a) measured intentions to revisit using two items. The same measurement was shown by Petrick (2003, 2004a) to predict cruise passengers' repurchase behavior. Grewal, Krishnan, Baker, and Borin (1998a) measured purchase intentions using three items to understand how consumers in a retail store form purchase intentions toward durable goods.

In sport management research, Murray and Howat (2002) measured future purchase intentions towards joining a leisure center using a single item. In an attempt to predict behavioral intentions of an action sport event, Tsuji et al. (2007) also used a single item measure. Kwon et al. (2007) measured purchase intentions of team licensed-apparel using a unidimensional construct. Trail et al. (2003) also measured sport consumers' future behavior employing a unidimensional approach that consisted of four items. Researchers have justified the use of either a single-item or unidimensional measure by arguing that the method may reduce respondent's fatigue as well as research cost (Oh, 1999). However, single-item or unidimensional measurement tends to lose considerable variances from the construct being examined (Churchill, 1979; Hair, Black, Babin, Anderson, & Tatham, 2005). Thus, a multi-dimensional measure should be utilized whenever a construct is theoretically identified as having multi-dimensional characteristics. In the context of spectator sport, Wakefield and Sloan (1995) and Wakefield and Blodgett (1996) viewed behavioral intentions as a two-dimensional construct, measuring desire to stay and repatronage intentions. In order to examine the influence of the physical environment on customers' affective responses and subsequent behavioral intentions, Wakefield et al. (1996)

measured repatronage intentions and recommending to others as assessing behavioral intentions. Petrick (2004a) also used a two-dimensional model of behavioral intentions that consisted of repurchase intentions and recommending to others. In addition to repurchase intentions and recommending to others, Eggert and Ulaga (2002) added another dimension of behavioral intentions to their model, the search for an alternative.

Based on the literature review regarding behavioral intentions, it is suggested that behavioral intentions are a multi-dimensional construct, and the most commonly identified sub-dimensions are repatronage intentions and recommending to others. To support the above notion, Zeithaml et al. (2006) stated that “among the most important generic behavioral intentions is willingness to recommend the service to others and repurchase intent” (p. 149). A study conducted by Söderlund (2006) also empirically supported each factor’s unidimensionality, indicating that the two factors were complementary but distinct. To compare aggregation and disaggregation methods for examining the behavioral intentions construct measured by repatronage intentions and word-of-mouth intentions, Söderlund (2006) compared two models. The first model was an aggregated model in which the two factors were combined into one factor, and the second model was a disaggregation model in which the two factors were independent of each other. As a result of Confirmatory Factor Analysis (CFA), the author found that the two-factor model showed better model fit than the aggregated model. In addition, the two-factor model demonstrated good discriminant validity, indicating that the two factors were distinct factors. Therefore, the two dimensions (i.e., repatronage intentions and recommend to others) have been proposed as spectator behavioral intentions for the current study.

Overview of the Proposed Dimensions of Spectator Behavioral Intentions

Building on the view of behavioral intentions as a multi-dimensional construct (Zeithaml et al., 2006), a two-factor model of spectator behavioral intentions have been proposed. The two factors are Repatronage Intentions and Recommending to Others. In the following section, definitions, supporting empirical evidence, and justifications of using the two factors will be discussed.

Repatronage intentions

Repatronage Intentions are defined as an indication of a consumer's desire to repurchase the product/service that the consumer once used/received (Ajzen, 2005). Repatronage intentions "have to do with moving one's body in a physical sense to get in contact with a supplier" (Söderlund, 2006, p. 81). This construct has been used as one of the common outcome variables in marketing and consumer behavior research (Zeithaml et al., 2006). Furthermore, repatronage intentions have been found to be a direct consequence of such variables as customer satisfaction (Eggert & Ulaga, 2002; Oh, 1999; Petrick & Backman, 2002a), perceived value (Grewal et al., 1998b; Oh, 1999; Petrick, 2003, 2004a; Petrick & Backman, 2002a), service quality (Cronin et al., 2000; Petrick, 2004b), and store image (Grewal et al., 1998a). In sport management research, Wakefield and Blodgett (1996) found that repatronage intentions were directly influenced by spectator satisfaction. In an attempt to examine the influence of the service environment on behavioral intentions, Wakefield et al. (1996) also found that repatronage intentions were positively related to minor league hockey spectators' perceived service quality (cognition) and excitement (affect). Given its significant relationships with various customer variables such as service quality and perceived value, the Repatronage Intentions factor has been operationalized as a sub-dimension of spectator behavioral intentions in the current study.

Recommending to others intentions

Recommending to Others is referred to as the degree to which a consumer recommends a service/product that they received/used to others (Zeithaml et al., 2006). This interpersonal behavior has to do with communication with others (Söderlund, 2006). Along with repatronage intentions, the recommending to others factor has been found to be the most generic construct of behavioral intentions in consumer behavior research (Zeithaml et al., 2006). Various researchers have found that the recommending to others factor was a robust behavioral intention construct directly predicted by perceived value (Oh, 1999), satisfaction (Lee et al., 2006; Oh, 1999), and perceived service quality (Wakefield et al., 1996). Based on previous studies, it appears as though the recommending to others factor is an important predictor of behavioral intentions. Interestingly, few researchers have conceptualized repatronage intentions as a direct antecedent of the recommending to others construct (Oh, 1999; Petrick, 2004b). In general, these two constructs have not been separated to form a causal relationship with each other. However, Oh (1999) and Petrick (2004b) differentiated between repatronage intentions and recommending to others by arguing that consumers tend to recommend a product/service after forming an intention to repurchase the product/service. For the current study, the Recommend to Others factor has been conceptualized as a sub-dimension of spectator behavioral intentions since examining a causal relationship between two constructs (Recommend to Others and Repatronage Intentions) was not the purpose of this current study. The focal point of the current study is to measure spectator behavioral intentions as a multi-dimensional construct as suggested by previous studies in order to assess more holistic spectator behavioral intentions influenced by market demand, game support programs, and perceived value.

In order to enhance sport spectators' consumption behavior, it is imperative for sport marketers to identify key influencing factors. Extant literature has reported several key antecedents of spectator behavioral intentions such as market demand (core service), game support programs (peripheral service) (Tsuji et al., 2007; Zhang et al., 2004c; Zhang et al., 1995; Zhang et al., 1998a), and perceived value (Kwon et al., 2007; Murray & Howat, 2002). In the following sections, a literature review on general service quality, market demand, game support programs, and perceived value as they relate to marketing, consumer research, and spectator sport will be presented.

Service Quality

Today's sport organizations face increasing competition for gaining market share. In an empirical study, Zhang et al. (1997b) found that substitute forms of other entertainment had considerably negative influences on game attendance for minor league hockey games. Thus, retaining existing consumers rather than attracting new consumers seems more imperative for the financial stability of sport organizations. Indeed, research has shown that retaining consumers is approximately five times less expensive for a service business than attracting prospective consumers (Kotler & Armstrong, 1996). Therefore, it is important for sport organizations to understand the underlying causes and antecedents of variables that may influence repatronage intentions (e.g., game attendance) (Hansen & Gauthier, 1989; Zhang et al., 1995). The perception of service quality has been identified as one of the most salient variables that may affect not only customer retention but also attraction in the marketing literature (Brady & Cronin, 2001; Cronin & Taylor, 1992; Grönroos, 1984; Parasuraman, Zeithaml, & Berry, 1985; Parasuraman et al., 1988). The service quality construct has been widely utilized in other contexts including hospitality (Choi & Chu, 2001); fitness, leisure, and recreation services (Alexandris, Grouios,

Tsorbatzoudis, & Bliatsou, 2001; Chelladurai & Chang, 2000; Hill & Green, 2000; Kim & Kim, 1995; Ko & Pastore, 2005; Lam, Zhang, & Jansen, 2005; Murray & Howat, 2002), and spectator services (Greenwell et al., 2002; Tsuji et al., 2007; Wakefield & Sloan, 1995; Wakefield et al., 1996; Zhang et al., 1998a, 2004b, 2004c, 2005b). Some of the identified consequences derived from good service quality include customer loyalty (Petrick & Backman, 2001), repatronage intentions (Wakefield et al., 1996), word-of-mouth (Wakefield & Boldgett, 1999), and satisfaction (McDougall, & Levesque, 2000; Tsuji et al., 2007), which in turn, help generate long-term profitability of an organization.

Definition of Service Quality

According to Kotler & Armstrong (1996) a service is defined as “any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything” (p. 455). The above definition implies an important distinction between a service and a product. A service deals with intangibility, which consumers cannot see or feel before the consumption stage. In addition to the distinguishing aspect of intangibility a service is also inseparable, perishable, and variable (Bitran & Hoeh, 1990; Kotler & Armstrong, 1996; Sasser, Olsen, & Wyckoff, 1978). Therefore, service quality can only be measured by an individual’s perceptions toward a service received (Parasuraman et al., 1985), whereas tangible products can be more objectively measured based on their qualities, such as toughness, durability, or defects (Crosby, 1979).

In service marketing, the term ‘service quality’ has been more frequently used than a general term ‘service’ when it comes to assessing the ‘service’ from the consumer’s perspective (Parasuraman et al., 1988; Zeithaml et al., 1996). Based on the confirmation-disconfirmation paradigm (Oliver, 1980), Parasuraman et al. (1988) defined service quality as the comparison of

a consumer's evaluation of the service performance to their pre-expectation of the service. This definition of the gap model between expectation and perception has been widely adopted in the marketing literature (Alexandris et al., 2001; Brown, Churchill, & Peter, 1993; Carman, 1990; McDonald, Sutton, & Milne, 1995). However, due to lack of predictive validity and measurement reliability, this gap model has been criticized (Cronin & Taylor, 1992; Buttle, 1996, Zhang et al., 2004b), and researchers have recommended using a performance-only model by viewing service quality as an attitudinal construct (Crompton & Love, 1995; Cronin & Taylor, 1992; VanDyke, Kappelmen, & Prybutok, 1997; Zeithaml et al., 1996). Empirically, Cronin and Taylor compared the performance-only measure with the gap model and found that the performance-only measure was superior to all four industries to which the measurement was applied. Based on the performance-only measure, service quality is operationalized as a consumer's perceptions towards a service performance received by the consumer.

Significance of Examining Service Quality

Theoretically, one of the most important reasons to examine service quality is due to its high explanatory power on outcome variables, such as purchase intentions (Petrick & Backman, 2001; Reichheld & Sasser, 1990; Tsuji et al., 2007), cost (Crosby, 1979), profitability (Buzzell & Gale, 1987; Rust & Zahorik, 1993), customer satisfaction (Bolton & Drew, 1991; Cronin & Taylor, 1992), and word-of-mouth (Petrick & Backman, 2001). The practical importance of investigating service quality lies in the fact that a high quality of service will produce a competitive edge, which will be directly related to revenue generation (Zhang et al., 1998a, 2004c). Furthermore, accurate and periodic assessment would provide management with feedback by pointing out areas in which management should improve.

Service quality research also has significance in the field of sport management. According to Wakefield and Sloan (1995), study on service quality has been a largely undeveloped area compared to areas such as psychology (i.e., team identification and motivation) and socio-demographic variables (gender, ethnicity, income, and education) in spectator attendance research. Zhang et al. (2004c) argued that services in relation to a sporting event can be extended to the game support/operation programs, which are considered extensions of the core product (game itself). Thus, examining service quality of those game support/operation programs would provide information for immediate attention by sport marketers. Moreover, the attributes relevant to game support/operation programs can be controlled and manipulated by a sport marketer, whereas the game itself cannot. Therefore, examining satisfaction toward game support/operation programs would have much practical relevance and value for game management (Baker & Crompton, 2000; Zhang et al., 2004c, 2005).

Measurement of Service Quality

For the past two decades, service quality research has been guided by two theoretical perspectives: (a) the American point of view that is represented by the SERVQUAL scale (Parasuraman et al., 1988) and its numerous modifications (Brown et al., 1993; Carman, 1990; MacKay & Crompton, 1990; McDonald et al., 1995; Wright, Duray, & Goodale, 1992) and (b) the European viewpoint, referred to as the Nordic model, developed by Grönroos (1984). Both scales were developed based upon Oliver's (1980) disconfirmation paradigm. Parasuraman and his colleagues (1985) proposed a conceptual model that included 10 factors related to service quality. The 10 factors were as follows: Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding/Knowing the customer, and Tangibles. Later, Parasuraman et al. (1988) conducted two studies to empirically test the above

10 factors to determine whether the dimensions were representing various service settings. The first study was conducted using 200 customers recruited by a mall-intercept method. As a result, a preliminary 34-item scale was developed. To further validate the initial scale, the researchers collected 800 customers from four nationally known firms, including a bank, a credit-card company, an appliance repair and maintenance firm, and a long-distance telephone company. For each firm, 200 customers were sampled. As a result of alpha reliability, exploratory factor analysis (EFA), and regression, the 10-factor model was collapsed into a five-factor model, called SERVQUAL, which included Reliability, Assurance, Tangibles, Empathy, and Responsiveness. Reliability referred to how dependably and accurately the service was performed. Assurance was defined as the courtesy, knowledge, and trust of employees. Tangibles were related to the appearance of physical facilities and communication items. Empathy was defined as the offering of caring and attention to customers. Responsiveness referred to the extent to which a service firm displayed a willingness to help and provide timely service to customers (Parasuraman et al., 1988). Numerous studies in the fields of leisure and sport management have adopted the theoretical framework of the SERVQUAL scale (Chelladurai & Chang, 2000; Howat, Murray, & Crilley, 1999; Kim & Kim, 1995; Lam et al., 2005; Papadimitriou & Karteroliotis, 2000). In the context of fitness centers in Korea, Kim and Kim (1995) developed a scale of Quality Excellence of Sports Centers (QUESC) that included 33 items under 12 dimensions that measured perceptions of service quality. The twelve dimensions derived from an EFA were as follows: Ambiance, Employee Attitude, Employee Reliability, Social Opportunity, Information Available, Programs Offered, Personal Considerations, Price, Privilege, Ease of Mind, Stimulation, and Convenience. However, it was found that most of the factors showed low reliability. In an attempt to apply the QUESC scale to Greek private fitness

centers, Papadimitriou and Karteroliotis (2000) conducted a study using 487 actual users of the fitness centers. Although the authors failed to confirm the factor structure of the QUESC, Papadimitriou and Karteroliotis (2002) proposed a parsimonious and sound a 24-item four-factor model that consisted of Program Availability, Other Services, Instructor Quality, and Facility/Attraction Operations. In the context of Austrian recreation centers, Howat, Absher, Crilley, and Milne (1996) developed a scale that contained 15-items under five factors, including Core Services, Staff Quality, General Facility, Secondary Services, and Knowledge. In an attempt to define more parsimonious dimensions, Howat et al. (1999) tested the five-factor model, which was collapsed into a three-factor model that contained Core, Peripheral, and Personnel. The three-factor model has shown stable psychometric properties in other applications (Howat & Crilley, 2007; Howat et al., 2002). Based on an extensive literature review, Chelladurai and Chang (2000) developed a five-factor model that may generally pertain to the recreation and fitness industry. The factors were: Core Service, Interaction between Employee and Client, Interaction between Client and Client, Context, and Client Participation. While the proposed factors seem relevant to recreation and fitness industry, the conceptual model has not yet been empirically validated. All of the above empirical studies were modeled upon the result of EFA except for Howat and Crilley's (2007), which utilized CFA.

Adopting Oliver's (1980) disconfirmation paradigm, Grönroos (1984) proposed a two-dimensional model that included technical quality and functional quality. Technical quality was defined as the outcomes of the service, which reflects tangible aspects. Grönroos (2005) elaborated that technical quality is "what the customer is left with, when the service production process and its buyer-seller interactions are over" (p. 63). Functional quality was related to intangible aspects, such as the consumers' perception as to how the service is delivered. An

important aspect when defining a service is the interaction between the service provider and the customer that takes place while the service is delivered (Brady & Cronin, 2001). McDougall & Levesque (2000) used the term ‘relational quality’ as they defined the functional quality while taking into consideration the interaction aspect of the service. Using 447 church members, the authors tested a conceptual model to examine the relative importance of service quality and perceived value on customer satisfaction, which was hypothesized to directly affect behavioral intentions. The results of the study indicated that core service quality, relational service quality, and perceived value were found to be directly related to customer satisfaction, which, in turn influenced behavioral intentions, which were measured by switching intentions and intentions to remain loyal. Based on the Grönroos’ (1984) two-component model, Zhang et al. (1998a) developed the Spectator Satisfaction Inventory (SSI) that contained 24-items under five factors, including Satisfaction with Ticket Service (STS), Satisfaction with Audio Visuals (SAV), Satisfaction with Accessibility and Parking (SAP), Satisfaction with Arena Staff (SAS), and satisfaction with Event Amenities (SEA). As a result of a test of Cronbach’s alpha coefficient and EFA, the scale showed good reliability and construct validity. To the best of the author’s knowledge, the SSI scale was the first instrument empirically tested for measuring spectator service quality toward game support programs. In addition, the SSI scale has been adapted to the contexts of NBA professional basketball games (Zhang et al., 2004c) and minor league hockey games (Zhang et al., 2005b) for the purpose of further validations.

In addition to these two theoretical frameworks (i.e., SERVQUAL and Grönroos’ two-component model), Brady and Cronin (2001) identified two additional recent conceptualizations of service quality, which were Rust and Oliver’s (1994) ‘three-component model’ and Dabholker, Thorpe, and Rentz’s (1996) ‘multilevel model.’ In fact, the three-component model was

developed based on Grönroos' (1984) two-component model (Rust & Oliver, 1994). Rust and Oliver proposed Service Product, Service Delivery, and Service Environment as the three components of the model. The service product dimension was related to Grönroos' (1984) technical quality, and the service delivery was in relation to the functional quality. Although Rust and Oliver did not empirically test the three-component model, the model's efficacy has been found in McDougall and Levesque's (1994) study in which the authors found a three-factor model, including Service Outcome, Service Process, and Physical Environment.

Dabholker et al. (1996) were the first researchers who viewed service quality as a hierarchical and multilevel concept, consisting of three levels: (a) overall perceptions of service quality, (b) primary dimensions, and (c) sub-dimensions. The authors employed three facets of qualitative measures to derive the initial items thought to be relevant to service quality in retail settings. As a result, the authors proposed the Retail Service Quality Scale (RSQS), which included Overall Service Quality as the third-order factor, five primary dimensions (Physical Aspects, Reliability, Personal Interaction, Problem Solving, and Policy), and six sub-dimensions (Appearance, Convenience, Promises, Doing It Right, Inspiring Confidence, and Courteous). Adopting the multilevel concept, Brady and Cronin (2001) validated the Dabholker et al.'s (1996) model using the sample drawn from four different service industries including fast food, photograph, amusement parks, and dry cleaning. As a result of CFA, the authors proposed the third-order model that included one third order (Service Quality), and three second-order factors (Interaction Quality, Physical Environmental Quality, and Outcome Quality), with each second-order factor containing three first-order sub-dimensions. This hierarchical theory of service quality has been adapted to the field of sport management (Ko & Pastore, 2004, 2005). Utilizing the data collected from a university recreation center, Ko and Pastore (2005) also tested their

conceptual model consisting of one third-order factor (Service Quality) and four second-order factors (Program Quality, Interaction Quality, Outcome Quality, and Physical Environmental Quality), with each second-order factor containing three sub-dimensions, except for Interaction Quality, which consisted of two sub-dimensions. CFA and SEM analyses also confirmed its sound reliability and validity.

In sum, three important considerations have been identified based on the literature review regarding the measurement of service quality. First, there has been general consensus that service quality is multi-dimensional in nature (Brady & Cronin, 2001; Carman, 1990; Cronin & Taylor, 1992; Greenwell et al., 2002; Howat et al., 1999, 2002; Ko & Pastore, 2005; Lam et al., 2005; Parasuraman et al., 1988; Zhang et al., 1998a, 2004c, 2005). Second, it is suggested that core service and peripheral service quality be measured simultaneously in order to assess the service quality comprehensively, regardless of using any of the theoretical frameworks reviewed (Greenwell et al., 2002; Howat et al., 1999, 2002, 2007; McDougall & Levesque, 2000; Murray & Howat, 2002; Tsuji et al., 2007; Van Leeuwen et al., 2002). Finally, the attributes measuring service quality should be those relevant to the context in which the service is to be employed. In fact, the applicability of the SERVQUAL scale to other contexts has been criticized by researchers (Carman, 1990; Cronin & Taylor, 1992) even when the SERVQUAL scale was developed simply for generic use (Parasuraman et al., 1988). For instance, Carman (1990) applied the SERVQUAL to measure service quality towards hospitals. The author failed to confirm the proposed five factors (Reliability, Assurance, Tangibles, Empathy, and Responsiveness). Instead, the researcher derived nine factors representing the perceptions of service quality toward hospitals. As a result of applying the SERVQUAL scale to a retail apparel store, Gagliano and Hathcote (1994) found 19 items under four factors: Reliability, Tangibles,

Personal Attention, and Convenience. In the field of sport management, numerous researchers also supported the notion of developing the industry-specific factors of service quality due to the different nature of service among sport organizations. In fact, services in spectator sport are more likely to deal with intangibles than services in durable goods (Greenwell, et al., 2002; Lam et al., 2005; Murray & Howat, 2002; Zhang et al., 1998a, 2004c). In the end, the original authors of the SERVQUAL scale, Parasuraman, Berry, and Zeithaml (1993) also acknowledged that the scale should be modified to be relevant to the context in which it is being examined.

Overview of the Proposed Spectator Service Quality

For developing a service quality scale that is pertinent to spectator sport, the current study will adopt the three criteria suggested above: (a) service quality should be treated as multi-dimensional in nature, (b) core service quality and peripheral service quality should be measured simultaneously, and (c) attributes related to core service quality and peripheral service quality should be context-specific. In terms of the multi-dimensional scale, a variety of scales have been developed in the field of sport management (Greenwell, et al., 2002; Ko & Pastore, 2005; Lam et al., 2005; McDonald et al., 1995; Murray & Howat, 2002; Tsuji et al., 2007; Wakefield et al., 1996; Zhang et al., 1998a, 2004c, 2005). With regards to measuring both core service quality and peripheral service quality simultaneously, Greenwell et al. (2002) examined the influence of the sportscape (physical sport facility) on customer satisfaction within the context of minor league hockey games. In the study, service quality was divided into two dimensions: (a) core product, which was measured as quality of home team and opposing team (Zhang et al., 1995), and (b) peripheral (service personnel) which was measured by staff responsiveness, presentation, knowledge, and behavior of officials. The authors suggested that greater insight would be achieved for team marketers if they know the relative influences of the core and peripheral

service quality on customer satisfaction in relation to game attendance. Recently, Tsuji et al. (2007) investigated spectators' satisfaction with action sport events as a predictor of future game attendance intentions. As an antecedent to satisfaction, the authors operationalized service quality as core and peripheral, suggested by Van Leeuwen et al. (2002).

The last criterion is related to developing a context-specific measurement of service quality. In spectator sport, the game itself is considered the core product (Mullen et al., 2007; Zhang et al., 2003b), which is related to the set of attributes that may affect consumers' perceptions of the quality of the game (Greenwell et al., 2002). The factors comprising the core product are generally categorized as Home Team, Opposing Team, Game Promotion, Love of Sport, Economic Consideration, and Schedule Convenience (Branustein et al., 2005; Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983; Zhang et al., 1995). The uniqueness related to core product is that the team marketing and management personnel can hardly control the core product once it has been set up for the game and season. However, Zhang et al. (2004b) described consumers' expectations towards peripheral service product by stating that "sport fans expect more than the core game product when they attend a sport event. Thus, the quality of game support programs and relational services plays an important role in maintaining and increasing spectator attendance levels" (p. 100). Furthermore, Zhang et al. (1998a) argued that the peripheral service product is an extension of the core product, which team marketers and management can manipulate if necessary during the season. Factors representing the peripheral service quality are Ticket Service, Game Amenities, Stadium Service, and Stadium Accessibility (Zhang et al., 2005b).

Unfortunately, there is no scale that incorporates aspects of both core service quality and peripheral service quality in the context of spectator sport. While Greenwell et al.'s (2002) scale

seems the most comprehensive in terms of adopting necessary attributes that are relevant to spectator sport, two weaknesses have been identified. First, only two factors, home team and opponent team' quality, were represented by core service quality. As suggested by previous studies (Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983; Zhang et al., 1995), more aspects, such as game schedule, should be added when measuring core service quality. Second, their scale pertaining to peripheral service quality focused on only physical environment aspects (e.g., layout, seating comfort, and scoreboard) and perceptions of service staff (e.g., responsiveness). The peripheral service quality scale should have reflected game operation variables, such as ticket service and game amenities (Zhang et al. 1998a, 2004c, 2005).

In the field of spectator sport, variables featuring core product (game itself) have been well discussed (Braunstein et al., 2005; Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983; Zhang et al., 1995, 2003a, 2003b, 2004a). In addition, attributes related to peripheral service, which includes aspects of game support (operation) programs, have also been identified (Greenwell et al., 2002; Tsuji et al., 2007; Zhang et al. 1998a, 2004c, 2005). In the following section, the concept and relevant variables representing core product service quality as well as peripheral service quality in relation to spectator sport will be discussed, followed by the dimensions of service quality related to spectator sport that will be proposed for the current study.

Market Demand (Core Service Quality)

As Mullin et al. (2007) and Zhang et al. (1995) noted, the core product in spectator sport is the game itself. Following an extensive literature review on factors influencing game attendance variables, Schofield (1983) proposed four demand categories: Demographic Variables, Economic Variables, Game Attractiveness, and Residual Preference. Greenstein and Marcum (1981) and Jones (1984) also proposed game production function that was related to team

performance variables such as winning/losing record and star player thought to account for factors affecting game attendance. Synthesizing demand categories and production function, Zhang et al. (1995) proposed a concept of market demand, which was defined as the spectators' expectation towards the main attributes of the game itself. Furthermore, Braunstein et al. (2005) argued that market demand is a construct associated with the game that a team can offer to its existing and new consumers. In a sense, market demand variables are comprised of the attributes of core service quality.

A number of studies have been conducted to develop scales that measure market demand (Braunstein et al., 2005; Zhang et al., 1995, 2003a, 2003b, 2004a). For the purpose of examining variables that influence spectator's game attendance of NBA games, Zhang et al. (1995) developed the Spectator Decision Making Inventory (SDMI) through data collected from six second-half NBA games ($N = 861$). Initially 20 items were developed based on an extensive literature review and interviews with administrators. The 20 items were sent to a panel of experts for a test of content validity, which resulted in 17 items. Following an EFA, 15 items were retained that included four dimensions such as Home Team, Opposing Team, Game Promotion, and Schedule Convenience. The SDMI displayed high psychometric properties. This study was unique because it was the first study that developed a scale of market demand in a systematic way to examine factors affecting game attendance in the context of sport management. However, an EFA was used to validate the factor structure of the SDMI. In an attempt to re-examine the SDMI's factor structure using a CFA, Zhang et al. (2003b) collected a total of 685 surveys from spectators of five NBA games. The initial SDMI scale included 15 items under four factors: Home Team, Opposing Team, Game Promotion, and Schedule Convenience. Following the CFA, items were further reduced to 13 under the same factors. The CFA revealed that the revised-

SDMI displayed good psychometric properties. The resolved model was consistent with the theoretical dimensions proposed by previous researchers (Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983). The SDMI has been adapted to a MLB spring training game (Braunstein et al., 2005). The data were split into half. The result of CFA on the first set of data was found to have poor psychometric properties, so it was subject to an EFA with a direct oblimin rotation, which resulted in 29 items under the eight factors, which was confirmed by another CFA using the second data set. The developed scale was named as Spectator Decision Making Inventory-Spring Training (SDMI-ST). The identified eight factors were: Home Team, Opposing Team, Game Promotion, Vacation Activity, Economic Consideration, Schedule Convenience, Nostalgic Sentiment, and Love of Baseball. However, some factors such as Nostalgic Sentiment and Love of Baseball showed poor loadings but were retained due to the theoretical relevance to the study context.

In an attempt to apply market demand to the general setting where home and opposing teams cannot be distinguished, Zhang et al. (2003a) conducted a study to examine the relationship between general market demand variables and sport consumption of professional sports. Using 525 subjects recruited by a community intercept method (Brenner, 1996), the authors derived a 12-item instrument of market demand under three factors: Game Attractiveness, Marketing Promotion, and Economic Consideration. The concept of general market demand has been adapted to a National Football League (NFL) expansion team (Zhang et al., 2004a) in which the authors developed an 18-item instrument of general market demand variables that loaded onto four factors (Game Attractiveness, Marketing Promotion, Economic Consideration, and Socializational Opportunity). As a result of an EFA and Cronbach's alpha coefficient, the scale displayed good reliability and validity. This was the first examination to identify the extent

to which market demand factors explain NFL expansion team's product consumption and team identification.

As a result of the literature review on market demand variables, it was found that when the home team and opposing team can be differentiated, the Game Attractiveness factor should be split into two dimensions: Home Team and Opposing Team (Braunstein et al., 2005; Zhang et al., 1995, 2003b). However, the Game Attractiveness factor should remain combined when home and opposing teams cannot be distinguished (Zhang et al., 2003a, 2004a).

Proposed Dimensions of Market Demand (Core Service Quality)

The Theory of Reasoned Action (Fishbein & Ajzen, 1975) as a primary theoretical framework and based on empirical findings of previous market demand studies (Braunstein et al., 2005; Zhang et al., 1995, 2003a, 2003b, 2004a), a six-factor model of market demand (core service quality) was proposed in the current study. The six factors are: Home Team, Opposing Team, Game Promotion, Economic Consideration, Love of Professional Team Sport, and Schedule Convenience. A discussion and rationale of selecting each factor will be presented in the following section.

Home team

The first dimension in the proposed model, Home Team, is defined as the perceived quality of the home team that is represented by such attributes as home team performance, presence of superstar, quality of home team players, home win/loss record, home team reputation, and/or home team league standing. Previous studies found that the home team had a positive relationship with game attendance of NBA basketball (Zhang et al., 1995) and minor league hockey (Zhang et al., 1997a). Zhang et al. (1995) found that home team's win/loss records, league standing, presence of superstars, and home team's performance had positive relationship

with NBA game attendance. Zhang, Wall, and Smith (2000) found that win/loss record was positively related to NBA season ticket holder's game attendance. Bird (1982) in his football attendance study, found that league standing had a direct relationship with game attendance. Zhang et al. (1997a), in their minor league hockey study, found that home team history, reputation, league standing, the presence of star players, and home team quality were contributing variables to game attendance. Given its significance on game attendance, Home Team would be an important factor representing market demand as it relates to professional team sport.

Opposing team

The second dimension in the proposed model, Opposing Team, refers to the perceived quality of the opposing team that is featured by such variables as opposing team performance, quality of opposing team, overall quality of opposing team players, opposing team history and tradition, opposing team league standing, opposing team as a rivalry, and/or superstar. Madrigal (1995) found that quality of opponent was related to affective reactions (enjoyment and BIRG), both of which had a direct relationship with spectator satisfaction. In the context of the NHL, Jones (1984) found that the presence of star players was what motivated sport consumers to attend hockey games. Quality of opposing team, opposing team history, league standing, and presence of superstar were consistently found to be contributing variables to game attendance (Greenwell et al., 2002; Zhang et al., 1995, 1997a). Based on the predictive validity of the Opposing Team factor, it should be measured as a sub-dimension of market demand as it relates to professional team sport.

Love of professional team sport

The third dimension in the proposed model, Love of Professional Team Sport, is defined as the perceived quality of professional team sports. A wide range of attributes have been identified as influencing variables. These may include, but are not limited to, closeness of competition, popularity of professional team sport, duration of game, high level of skills, best players in a sport, and/or speed of game (Braunstein et al., 2005; Ferreira & Armstrong, 2004; Zhang et al., 2003a). Braunstein et al. found that love of professional baseball was identified as an important factor representing SDMI-ST. The same finding was discovered in Zhang et al.'s (2003a) general market demand associated with professional sport consumption study. Furthermore, the authors found that love of professional sports was positively related to game attendance and media consumption. In an attempt to examine attributes that influence college students game attendance, Ferreira and Armstrong (2004) found that such variables as the duration of event, the popularity of sport, high level of skill displayed, and speed of game were revealed as salient attributes influencing game attendance. Given its significance on game attendance, the Love of Professional Team Sport would be an important factor representing market demand as it relates to professional team sport.

Economic consideration

The fourth dimension in the proposed model, Economic Consideration, is defined as an individual's perceptions towards economic variables, including ticket price, ticket affordability, good seats, and/or ticket discounts. Previous studies have shown conflicting results regarding the impact of economic consideration on game attendance. Baade and Tiehen (1990), in their longitudinal study on major league baseball attendance, found that economic consideration was negatively related to game attendance. Similar findings were found in Bird's (1982) football

study and the general professional sports study conducted by Hansen and Gauthier (1989). On the other hand, Zhang et al. (1995) found that ticket discounts, good seats, and group ticket cost were positively associated with attendance of NBA game. In numerous studies, economic consideration was found to exert a substantial influence on game attendance (Zhang et al., 1997a, 2003a, 2004a). Given its significant contribution in accounting for game attendance, the Economic Consideration would be an important factor representing market demand as it relates to professional team sport.

Game promotion

The fifth dimension in the proposed model, Game Promotion, is defined as the specific mixture of marketing tools that the sport organization can use for persuasion (Kotler & Armstrong, 1996). The Game Promotion factor can be represented by such attributes as advertising, direct mail and notification, publicity, and web information. This factor should be separated from in-game entertainment amenities (Zhang et al., 2005b), which can be manipulated by team marketers on a game basis. Previous studies indicate that the game promotion factor was positively related to game attendance in the NBA (Zhang et al., 1995, 2000), minor league hockey (Zhang et al., 1997a), general professional sports (Zhang et al., 2003a), and an NFL expansion team (Zhang et al., 2004a). Based on the findings of the previous studies, the Game Promotion factor should be treated as an influencing variable to form market demand as it relates to professional team sport.

Schedule convenience

The sixth dimension in the proposed model, Schedule Convenience, is defined as the assigned time and day in which a sport game is held. Zhang et al. (1995) found that schedule convenience was related to only past game attendance. Hill, Madura, and Zuber (1982) found

that schedule convenience was positively related to game attendance with weekend and season ending games, but not afternoon games in the MLB. Zhang (1998b) examined minor league hockey spectators' preferred time for game attendance. The author found that spectators preferred evening times (7:00 pm) for weekday and Saturday games, and late afternoon times (4:00 pm) for Sunday games. This factor seems to have lesser predictive validity on game attendance compared to the two other factors of Home Team and Opposing Team. However, in various scale development studies, the Schedule Convenience factor emerged as an important sub-dimension of market demand (Braunstein et al., 2005; Zhang et al., 1995, 2003b). Thus, this factor should be considered as a contributing factor of market demand as it relates to professional team sport.

Spectator Game Support Programs (Peripheral Service Quality)

Zhang et al. (1998a; 2004c) argued that the peripheral service quality that is related to game support programs often affects the consumption levels of spectators. Furthermore, it has been suggested that utilizing manipulated variables such as the game support programs may be more important than the core product in terms of game consumption (Mullin et al., 2007; Murray & Howat, 2002). Despite the significance of game support programs on game consumption, few studies have been conducted to develop a scale that is pertinent to consumers' perceptions towards the game support programs in the context of spectator sport (McDonald et al., 1995; Zhang et al., 1998a, 2004b, 2004c, 2005b).

Adopting the SERVQUAL scale, McDonald et al. (1995) developed the TEAMQUAL™ scale, which included 39 items under five factors, the same as the SERVQUAL scale. Although the TEAMQUAL™ scale has never been empirically validated, the authors took into consideration the nature of spectator sport and management of a sport event when developing the

scale. Based on a sample of 181 spectators from three minor league hockey games, Zhang et al. (1998a) developed the Spectator Satisfaction Inventory (SSI) that measured game support programs related to peripheral services of spectator sport. The SSI included 24 items under five factors: Satisfaction with Ticket Service (STS), Satisfaction with Audio Visuals (SAV), Satisfaction with Accessibility and Parking (SAP), Satisfaction with Arena Staff (SAS), and Satisfaction with Event Amenities (SEA). In an attempt to apply the SSI scale to the NBA context, Zhang et al. (2004c) examined spectators' satisfaction towards game support programs offered by a professional basketball team and its relationship with game attendance. Based on Grönroos' (1984) two-component model (technical and functional) of service quality and the characteristics of professional basketball games, the researchers developed the Spectator Satisfaction Scale (SSS) that included 18 items under four factors, including Satisfaction with Ticket Service (STS), Satisfaction with Amenities of Game (SAG), Satisfaction with Audio Visuals (SAV), and Satisfaction with Accessibility Condition (SAC). An EFA, Cronbach's alpha, stepwise multiple regression, and Kruskal-Wallis indicated that the SSS scale showed good measurement properties and predictive validity (16% variances explained in game attendance).

Utilizing a more advanced factor analysis method (CFA), Zhang et al. (2005b) developed the Scale of Game Support Programs (SGSP) to measure spectator satisfaction associated with game operation of minor league hockey games. A preliminary scale consisting of 28 broad game support activities was developed through an extensive literature review, field observations, and interviews with administrators. Following an EFA, the data were reduced to 23 items under four factors, including six items for Satisfaction with Ticket Service (STS), six items for Satisfaction with Game Amenities (SGA), six items for Satisfaction with Arena Service (SAS), and four items for Satisfaction with Arena Accessibility (SAA). Following a CFA, the items were reduced

to 22, retaining the same factors. Furthermore, the CFA revealed that the SGSP had sound psychometric properties. This study was an extension of the previous study (Zhang et al., 1998a) that developed a game operation scale (SSI). However, two aspects were improved: (a) the study utilized a much larger sample size than 1998 study, and (b) both EFA and CFA applications were utilized to confirm the scale's factor structure.

Using Grönroos' (1984) two-component model and Oliver's (1980) expectancy disconfirmation theory as theoretical frameworks, Zhang et al. (2004b) examined the role of special programs and services perceived by NBA season-ticket holders to predict their sport consumption. A total of 350 season ticket holders answered a questionnaire that included six items measuring demographic variables, 15 items measuring special programs and services, and eight items measuring game consumption. Following an EFA, four factors emerged in the special programs and services variables: Representative, Benefit, Opportunity, and Socialization in the Expectation and Perception dimensions. Additionally, an EFA extracted three factors that were related to sport consumption: Event Viewing, Ticket Type, and Ticket Level. As a result of a stepwise multiple regression analysis, the authors found that apart from the Benefit factor, the special programs and services factors were found to have significant influences on the sport consumption factors. Because the Congruence factor did not show good explanatory power, the authors suggested that a performance-only measure be employed, as proposed by various authors (Crompton & Love, 1995; Cronin & Taylor, 1992).

Proposed Dimensions of Spectator Game Support Programs (Peripheral Service Quality)

Using the two component model (Grönroos, 1984) as a primary theoretical framework and specific characteristics concerning game support programs related to professional team sports (Zhang et al., 1998a, 2004a, 2005b), a four-factor model represents the Game Support Programs

of professional team sport in this study. The four factors are as follows: Ticket Service, Game Amenities, Stadium Service, and Stadium Accessibility. In the following section, justification for using each dimension will be discussed.

Ticket service

Ticket Service is defined as the various channels of ticket sale services, including phone order, mail order, box office, ticket personnel friendliness, web order procedures, convenience of ticket sale locations, and/or will call. Providing effective ticket services are imperative for sport organizations in order to enhance the perceptions of service quality of sport consumers. Because ticketing is necessary for all spectators to get into the venue, the ticket office is usually the first contact place for most spectators (Mulrooney & Farmer, 1996). Previous studies concerning ticket service revealed a positive relationship with game consumption (Zhang et al., 1998a; Zhang et al., 2004a). As a result of a stepwise multiple regression, Zhang et al. (1998a) found that ticket service was positively predictive of future game attendance of minor league hockey. In an attempt to predict NBA season-ticket holders' sport consumption, Zhang et al. (2004a) examined the roles of special programs and services. The authors found that the Representative factor, which was comprised of ticket service attributes, was positively related to media consumption, which included items such as watching games, game attendance, and visiting team website. Contrary to the above findings, Zhang et al. (2004c) found that ticket services were not a statistically significant predictor of NBA spectators (Zhang et al., 2004c). However, the result may have been attributed to online ticket shopping or ticket purchase through a nation-wide ticket distribution company, such as Ticketmaster (Zhang et al., 2004c). Thus, online ticketing should be taken into consideration in the measurement of game support programs. Given the

significance of its predictive validity on game consumption, the Ticket Service factor will be included as a sub-dimension of game support programs as related to professional team sport.

Game amenities

Game amenities are defined as entertainment and promotional activities offered during the course of a game. Music, public announcements, scoreboard, promotions, pre, half, and post-game entertainments, dance/cheerleading activities, and music selection have been identified as contributing variables of game amenities. Furthermore, this factor has been found to be related to game consumption (Greenwell et al., 2002; Wakefield et al., 1996; Zhang et al., 1998a; Zhang et al., 2004c; Zhang et al., 2005b). Wakefield et al. (1996) found that scoreboard was related to affective reaction (pleasure), which in turn, influenced game consumption in the context of college football and minor league baseball. Greenwell et al. (2002) also supported the above findings when the result of their study revealed that scoreboard quality was positively related to minor league hockey spectator satisfaction. Zhang et al. (1998a) found that game amenities were an important predictor of game attendance of minor league hockey games. The same finding was discovered in the case of NBA spectators (Zhang et al., 2004c). Zhang et al. (2005), in their NBA season ticket holder study, found that in-game entertainment amenities were positively related to game consumption of NBA games. Based on the findings of the previous studies, the Game Amenities factor should be treated as an influencing variable to form game support programs as related to professional team sport.

Stadium service

Stadium service is defined as the physical surroundings of service encounters that spectators can experience as a part of game spectating. Variables identified are concession, cleanliness, restroom, and/or staff courtesy. Previous studies concerning the stadium service

revealed a positive relationship with game consumption (Wakefield & Sloan, 1995; Zhang et al., 2004c). In the context of college football spectators, Wakefield and Sloan (1995) found that parking, food, and cleanliness were statistically significant predictors of the desire to stay longer variable. Zhang et al. (2004c) also found that the stadium service factor had a positive relationship with game attendance of NBA spectators. Similar findings were discovered in the context of minor league hockey (Zhang et al., 1998a). Previous findings provide supporting evidence that Stadium Service could be an important sub-factor representing game support programs as related to professional team sport.

Stadium accessibility

Stadium Accessibility refers to the degree of convenience to stadium access. A wider range of variables have been identified as significant attributes. These may include, but are not limited to, parking, niceness of venue, security, ticket takers, ushers, and/or ease of entrance. Wakefield et al. (1996) found that stadium access had a positive relationship with pleasure of college football spectators. Furthermore, Zhang et al. (2004c) also found that the stadium accessibility factor was positively related to game attendance of NBA spectators. The stadium accessibility factor in Zhang et al.'s (1998a) minor league hockey consumption study was extracted as a significant factor by an EFA. Given its significance of predictive validity on spectator's affective reaction and game consumption, this factor has been included as an influencing variable to form game support programs as related to professional team sport.

Perceived Value

Over the last two decades, perceived value has received increasing attention as one of the most salient variables in predicting consumption behavior in the marketing literature (Bolton & Drew, 1991; Chang & Wildt, 1994; Zeithaml, 1988). Holbrook (1994) argued that the

fundamental marketing basis cannot be explained without considering perceived value. Ravald and Grönroos (1996) supported Holbrook's (1994) argument by mentioning that the perceived value construct has been found to be a strong predictor for repurchase intentions, word-of-mouth, and customer loyalty.

Various terms representing perceived value have been used by different researchers. These include, but are not limited to: customer value (Eggert & Ulaga, 2002; Oh, 1999), consumption value (Sheth, Newman, & Gross, 1991), service value (Cronin et al., 1997, 2000; Lee, Petrick, & Crompton, 2007), and perceived value (Petrick, & Backman, 2002a; Petrick, 2003; Lee et al., 2006; Moliner, Sanchez, Rodriguez, & Callarisa, 2007; Patterson, & Spreng, 1997 Sweeney, & Soutar, 2001; Zeithaml, 1988).

Although perceived value has been considered one of the important constructs in service marketing and consumer behavior research, a widely accepted consensus on the definition of perceived value has yet to emerge (McDougall & Levesque, 2000). One of the main reasons behind this may be the dynamic nature of the perceived value construct. That is, perceived value varies between customer characteristics (Bolton & Drew, 1991; Parasuraman, 1997), types of product or service (Zeithaml, 1988), and different time periods such as pre-purchase, at the moment of purchase, at the time of use, and post-purchase (Parasuraman & Grewal, 2000; Ravald & Grönroos, 1996). Kortge and Okonkwo (1993) argued that perceived value is a subjective construct. Zeithamal (1988) also contended that there are individual differences in terms of possessing perceived value. For example, consumers may form good perceived value when the price is low, regardless of quality. Additionally, consumers may shape the perceived value when there is a balance between quality and price. This theoretical proposition has been

empirically validated by Sheth et al. (1991) and Sweeney & Soutar (2001), who argued that there were relative influences of value dimensions on consumption behavior.

Definition of Perceived Value

In marketing and consumer research, perceived value is often defined from the consumer's standpoint. Conventionally, researchers viewed perceived value as a two-dimensional construct consisting of product/service quality received and price paid for the quality (Buzzell & Gale, 1987; Monroe, 1990). Holbrook (1994) supported this view by arguing that perceived value is the discrepancy between the benefits of a product or service in relation to its costs. In the same vein, Sawyer and Dickson (1984) understood perceived value as a comparison of get dimension (i.e., product/service quality) and give dimension (price/cost). McDougall and Levesque (2000) also agreed with the two-dimensional view, in which they defined perceived value as consumers' cognitive evaluation of what they have received for what they have given. To support the above view, Patterson and Spreng (1997) submitted a definition of perceived value as "a cognitive-based construct which captures any benefit-sacrifice discrepancy" (p. 4). This definition has been widely used as the most common definition in marketing and consumer research (Bojanic, 1996; Dodds & Monroe, 1985). However, Grewal et al. (1998b) defined perceived value as having only a 'get' dimension, comprised of acquisition value and transaction value. Acquisition value was defined as the physical gain that a consumer directly obtains from the service or product, whereas transaction value is the psychological gain that a consumer gets from the product or service use and the feeling that one received a good deal. Grewal et al.'s (1998b) definition has been adopted by various domains in both hospitality (Al-Sabbahy, Ekinici, Riley, 2004; Jayanti & Ghosh, 1996) and tourism (Petrick & Backman, 2002a). However, the two-dimensional definition, which consists of 'get' and 'give' or trade-off between quality received and price

paid' has been more widely used as the most common definition in marketing and consumer research (Bojanic, 1996; Dodds & Monroe, 1985; Dodds et al., 1991).

However, Bolton and Drew (1991) argued that treating perceived value as just trade-off between quality and cost is unsophisticated as it provides a lack of usefulness of understanding the construct. In line with the above notion, Woodruff (1997) contended that perceived value should be conceptualized more than just quality in relation to cost. He suggested perceived value be understood as the relationship between total benefits and total sacrifice. Total benefits may include not only quality received but also emotion derived from the purchase of product. Total sacrifice consists of monetary sacrifice as well as non-monetary sacrifice, such as time, effort, and risk (Woodruff, 1997). Employing qualitative measures such as focus groups and in-depth interviews, Zeithaml (1988) proposed one of the most comprehensive models that depict the relationship among price, quality, perceived value, and purchase intentions. In her study, she elaborated 'get' and 'give' in a similar manner to which Woodruff (1997) defined them. She argued that the 'get' included such aspects as perceived quality, intrinsic attributes, and extrinsic attributes. The intrinsic attributes were related to the feeling that a consumer gets from the purchase of the product. The extrinsic attributes were represented by the reputation of the product purchase. In addition, Zeithaml (1988) divided the 'give' dimension into two components, including perceived value for the cost and perceived sacrifice (effort made to buy). Based on the above thesis, Zeithaml (1988) defined perceived value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (p. 14).

It should be noted that due to the historically unclear consensus regarding the definition of perceived value (Dodds et al., 1991; McDougall & Levesque, 2000), the literature demonstrated

some confusion in discriminating the terms perceived value and personal value (Ledden, Kalafatis, & Samouel, 2007) and perceived value and satisfaction (Patternson & Spreng, 1997; Ravald & Grönroos, 1996; Woodruff & Gardial, 1996). These terms are complementary, but clearly distinct, from each other. In terms of the difference between perceived value and personal value, Sheth et al. (1991) pointed out that perceived value is the individual perceptions formed by pre- and post-consumption of products or services. On the other hand, personal value is an individual's enduring beliefs that direct his/her behavior in their ordinary life (Rokeach, 1968). Rokeach argued that "values have to do with modes of conduct and end-states of existence. More formally, if a person 'has a value' is to say that he has an enduring belief that a particular mode of conduct or that a particular end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence" (p. 550). Therefore, personal value can be derived from without any consumption-related situation, whereas perceived value cannot be formed unless an individual is related to the consumptive state.

With regards to the conceptual differences between perceived value and satisfaction, perceived value can occur at various stages of purchasing (Parasuraman & Grewal, 2000; Ravald & Grönroos, 1996), whereas satisfaction is considered as post-consumption evaluation, which occurs only at the post-consumption stage (Oliver, 1981). Second, perceived value can be formed as a function of both cognitive and affective attitudinal orientations (Bolton & Drew, 1991; Petrick, 2002a; Sheth et al., 1991; Sweeney & Soutar, 2001; Zeithaml, 1988). However, satisfaction has been conceptualized as purely an affective evaluation (Oliver, 1996).

Importance of Examining Perceived Value

Over the two decades, perceived value has received growing academic attention due to its theoretical and practical significance. In the context of marketing, Parasuraman (1997) argued

that in addition to service quality, perceived value has been considered one of the most influential constructs for achieving a competitive edge. Cronin et al. (2000) pointed out that perceived value has gained increased attention to marketing managers and researchers because of its high explanatory power in outcome variables such as customer satisfaction and behavioral intentions (Eggert & Ulaga, 2002). Furthermore, Parasuraman and Grewal (2000) supported the importance of examining perceived value by mentioning that the construct has been found to be the most significant predictor of repurchase intentions. Woodruff (1997) suggested in his study that by recognizing the relationship of perceived value with other variables such as service quality, satisfaction, and behavioral intentions, managers will be able to more efficiently allocate their marketing resources.

Despite the highly recognized importance of perceived value in understanding consumer decision-making process, few studies on the perceived value construct have been conducted in the field of sport management. The literature review only identified two studies that have used the perceived value construct (Kwon et al., 2007; Murray & Howat, 2002). Murray and Howat were among the first researchers to examine the effect of perceived value on the prediction of future intentions in the context of sport and leisure center. Utilizing stratified random sampling, 218 surveys were collected to examine the relationships among service quality, satisfaction, perceived value, and future intentions. The authors conceptualized service quality as a two-dimensional construct composed of core service quality and relational service quality. A path analysis revealed that both the core and relational service quality constructs were found to have a direct relationship with perceived value ($r = .59$, and $r = .63$) respectively. In addition, they found that perceived value was related to satisfaction and future intentions. More specifically, perceived value had a direct relationship with future intentions as well as an indirect relationship

with future intentions via satisfaction. As the authors tested a comprehensive model that considered the mediating role of perceived value, the authors used perceived value for the cost of perceived value using a single item.

To predict purchasing team-licensed apparel, Kwon et al. (2007) examined the mediating role of perceived value in the relationship between team identification and purchase intentions. Using a small student sample ($N = 110$), the authors found that perceived value was indeed a key mediating variable between team identification and purchase intentions, explaining nearly 43% of the variance. The results of the study indicated that team sport marketers need to take into consideration perceived value when developing marketing strategy, because the study found that team identification alone was not sufficient to influence consumer's purchase intentions. In this study, perceived value was measured as a unidimensional construct related to value-for-money.

Measurement of Perceived Value

Despite the recognition of Zeithaml's (1988) multi-dimensional conceptualization of perceived value and Bolton and Drew's (1991) empirical results, a majority of the research concerning perceived value has operationalized the factor as a single-item measure (Cronin et al., 1997; Eggert & Ulaga, 2002; McDougall & Levesque, 2000; Murray & Howat, 2002; Oh, 1999; Patterson & Spreng, 1997), which purported to measure overall perceived value of a product in terms of value-for-money.

Some of the problems associated with using a single-item measure have been well documented in the literature (Al-Sabbahy et al., 2004; Bolton & Drew, 1991; Petrick, 2002a). In line with the notion by Bolton and Drew (1991) that components representing perceived value are more than just value-for-money, Al-Sabbahy et al. (2004), in their hospitality marketing research, argued that the use of a single-item measure does not address the concept of perceived

value because it is proposed with multiple dimensions (Petrick, 2002a; Sweeney & Soutar, 2001; Zeithaml, 1988). Another problem associated with a single-item measure of perceived value is identified by Petrick (2002a), who proposed the SERV-PERVAL scale that was constructed as a multi-dimensional perceived value of a service. The researcher pointed out that the problem with using a single-item measure is that theoretically “it assumes that consumers have a shared meaning of value” (p. 122). Practically, Petrick (2002a) also claimed that the single-item measure “results in the knowledge of how well one is rated for perceived value, but give no specific direction on how to improve perceived value” (p. 122). Sheth et al. (1991) also pointed out that the choice decision is a function of multiple perceived consumption values. Holbrook (1994) argued that purchase behavior derived directly from perceived value can be categorized into two attitudinal dimensions: a) cognition and b) affect. More specifically, in a buying context, the cognitive components are in relation to a conventional view of perceived value in which a consumer tends to compare what they receive for what they give up. The affective components are generated when consumers consider how the purchasing is viewed by others or how this buying makes them feel good or bad. Havlena and Holbrook (1986) supported the argument of Holbrook (1994) by suggesting that affective aspects be entered into the equation of perceived value for two reasons: (a) “emotional benefits affect choice behavior between instrumental alternatives that are functionally equivalent in other aspects” (p. 394), and (b) perceived value is considered a dynamic variable (Bolton & Drew, 1991; Parasuraman, 1997), which means that consumers could form perceived value after the consumption as a post-hoc evaluation that may include subjective or emotional reactions such as fear, anger, and happiness that are caused by the purchase (Bolton & Drew, 1991; Havlena & Holbrook, 1986; Sweeney & Soutar, 2001). The affective and hedonic aspects of consumption may be more relevant to sport consumers. Sport

consumer behavior can hardly be understood solely from a cognitive view, as sport consumers may be attracted to a sport game not only for mental benefits (i.e., cognition) but also for the pleasure, positive arousal, sensation, satisfaction, and feeling associated with winning, which are related to affective aspects (Sloan, 1989). Due to the above reasons, it is suggested that perceived value be formed through not only cognitive processes (e.g., belief and thinking) but also affective processes (feeling and emotion), which justifies multi-dimensional aspects of perceived value (Bolton & Drew, 1991; Petrick, 2002a; Sheth et al., 1991; Sweeney & Soutar, 2001; Zeithaml, 1988). In tourism marketing research, Sanchez, Callarisa, Rodriguez, and Moliner (2006) also pointed out that developing a scale measuring perceived value should reflect both functional (cognitive) and affective dimensions. This multi-dimensional view may attenuate the conventional perspective that perceived value is related to cognitive response to a service experience (Cronin et al., 2000; McDougall & Levesque, 2000; Patterson & Spreng, 1997). While acknowledging multi-dimensional aspects of perceived value, cognitive aspects, which are related to economic utility variables such as perceived value for the cost and quality, outperformed hedonic aspects of perceived value in previous literature (Cronin et al., 1997; Eggert & Ulaga, 2002; McDougall & Levesque, 2000; Oh, 1999). Furthermore, when perceived value is measured with other variables such as quality simultaneously, the two constructs tend to form a causal relationship, in which perceived value for the cost is positively related to perceived value (Oh, 1999; Sweeney & Soutar, 1997; Zeithaml, 1988). Thus, the sole use of perceived value for the cost as measuring perceived value has been suggested when perceived quality is incorporated into the same model. Following Churchill's (1979) multi-item measure, several items assessing perceived value for the cost have been recommended.

Overview of the Proposed Dimensions of Perceived Value

In this current study, perceived value is represented by a unidimensional factor, Perceived Value for the Cost, as suggested by previous research (Kwon et al., 2007; McDougall & Levesque, 2000; Murray & Howat, 2002; Netemeyer et al., 2004). Zeithaml (1988) defined perceived value as a consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received (quality and benefit) and what is given (perceived value for the cost and non-monetary price). While acknowledging its multi-dimensional aspects, previous studies have consistently found that utilitarian aspect such as perceived value for the cost accounted for more variance explained in consumption behavior (Kwon et al., 2007; Netemeyer et al., 2004). Netemeyer et al. argued that "perceived value for the cost was considered a cornerstone of the most consumer-based-brand-equity frameworks" (p. 211). Kwon et al. supported Netemeyer's rationale by suggesting that a sport consumer tends to weigh the cost versus the benefit to determine perceived value of team-licensed product. Therefore, perceived value for the cost could be overall the well-representing global measure of perceived value construct. Furthermore, a unidimensional measure of perceived value using perceived value for the cost can certainly be overarching approach. Consistent with the theoretical relevance and empirical suggestions, the current study adopted a unidimensional aspect (i.e., perceived value for the cost) to measure perceived value, even though the measurement may exclude the potential importance of hedonic aspects of perceived value such as emotional response.

Perceived Value for the Cost

Perceived Value for the Cost refers to the perceived price paid for a service (i.e., a ticket for game attendance). This is one of the most important factors that distinguish perceived value from other theoretically related factors such as service quality, personal value, and satisfaction (Bolton & Drew, 1991; Ledden et al., 2007; Zeithaml, 1988). Many scholars view perceived

value as a trade-off between what consumers paid for what they received (McDougall & Levesque, 2000; Patterson & Spreng, 1997; Sawyer & Dickson, 1984). Zeithaml (1988) found that perceived value for the cost was indirectly related to perceived value through perceived quality. Oh (1999) also confirmed the above relationship by finding that perceived value for the cost was directly related to perceived value in the context of choosing a luxury hotel. This would be the same case for attending a sporting event for fans. Studies have found that ticket price for a sport event was, in general, negatively related to game attendance (Bird, 1982; Demmert, 1973, Noll, 1974). However, this negative relationship would be moderated by psychological orientations such as involvement and team identification (Wann & Branscombe, 1993). Therefore, the Perceived Value for the Cost factor has been included as the dimension representing perceived value of professional team sport. This factor will be measured by perceptions regarding price reasonability, economic worth, and/or money worth.

Relationship among Perceived Value, Service Quality, and Behavioral Intentions

As Parasuraman (1997) and Woodruff (1997) indicated, perceived value should be considered for gaining a competitive advantage in marketing. In numerous empirical studies, perceived value has been found to have considerable impact on behavioral intentions (Petrick, 2003; Zeithaml, 1988). Furthermore, Cronin et al. (1997) and Oh (1999) found that perceived service quality was the most significant predictor of perceived value. Zeithaml's (1988) finding supported the positive relationship between perceived service quality and perceived value. Therefore, a conceptual framework that posits the hierarchical relationship among service quality, perceived value, and behavioral intentions has gained increased attention over the past decade in marketing and consumer research (Cronin et al., 1997, 2000; Dodds et al., 1991; Gallarza &

Saura, 2006; Grewal et al., 1998b; Lee et al., 2006; Murray & Howat, 2002; Oh, 1999; Petrick, 2004a, 2004b; Zeithaml, 1988).

Using a 5x3x3 between-subjects factorial design, Dodds et al.'s (1991) study examined the effects of price, brand, and store information on consumers' product evaluations. The authors conceptualized perceived value as a trade-off between perceived service quality and perceived sacrifice, which was measured by monetary and non-monetary orientations. The results of the study indicated that perceived service quality positively led to perceived value, which in turn, positively influenced willingness to buy.

In the context of purchasing a durable product, Grewal et al. (1998a) developed a conceptual model of the consumer decision-making process and tested the effects of store name, brand name, and price discounts on consumers' psychological evaluations, such as store image, perceived brand quality, and internal reference prices, which in turn, may influence consumer's perceived value and purchase intentions. Using a 2x2x2 between-subjects design, the author found that perceived value was positively related to purchase intentions. Furthermore, perceived value was directly influenced by brand quality, internal reference price, and perceived brand quality. However, in this study, perceived value was operationalized as a unidimensional model. In an attempt to understand the effect of price on perceived value, which in turn, may affect willingness to buy and search intentions, Grewal et al. (1998b) developed a two-dimensional perceived value model, which included acquisition value and transaction value. The results showed that both values had a positive effect on willingness to buy durable goods. Also, both values were found to be negatively related to search intentions.

To better understand consumers' decision-making process of choosing an upscale hotel, Oh (1999) developed a conceptual model to test the relationship among price, perceptions of

performance, perceived service quality, customer perceived value, satisfaction, intentions to repurchase, and word-of-mouth. The results of the study indicated that perceived value was found to be directly related to repurchase intentions as well as word-of-mouth, and perceived value was also indirectly related to repurchase intentions through satisfaction. Perceived service quality had a direct relationship with perceived value. Furthermore, perceived service quality also had an indirect relationship with repurchase intentions as well as word-of-mouth by means of perceived value. The author also found that perceived value for the cost was a direct antecedent of perceived value, which in turn, influenced repurchase intentions as well as word-of-mouth. While this study was recognized as the first holistic approach to examine decision-making process in the context of hospitality, the limitation associated with this study was the use of a single-item measure for all constructs except for the perception of performance. Because of the single-item measures, the construct's validity and reliability have been questioned.

Cronin et al. (2000) examined the relationships among service quality, service value, satisfaction, and behavioral intentions across the six service industries that were characterized as hedonic vs. utilitarian, tangible vs. intangible, and primary vs. secondary. As a result of SEM analysis, the authors found that service quality was directly related to perceived service value, satisfaction, and behavioral intentions and had indirect relationships with behavioral intentions through perceived service value and satisfaction. Contrary to Oh's (1999) finding, perceived sacrifice was found not to be related to perceived service value. In terms of the effect of perceived service value on behavioral intentions and satisfaction, the results revealed that perceived service value was directly related to behavioral intentions as well as satisfaction. Since indirect effects on behavioral intentions have been scarce in service marketing research, the researchers suggested incorporating both direct and indirect effects of quality on behavioral

intentions. From the findings of Cronin et al. (2000), it should be noted that perceived value played not only a role of direct predictor of behavioral intentions but also a mediating role between service quality and behavioral intentions.

The above theoretical relationship of perceived value has been verified in various contexts, including spectating, recreation sport, health care and communication (Cronin et al., 1997); festival attendance (Lee et al., 2007); cruise travel (Petrick, 2004a, 2004b); university students' travel behavior (Gallarza & Saura, 2006); durable goods (Grewal et al., 1998a); and use of a leisure center (Murray & Howat, 2002).

Cronin et al. (1997) examined the hierarchical relationship among service quality, perceived value, and purchase intentions in six service industries including three hedonic services such as recreation sport, spectator sport, and entertainment businesses, and three utilitarian services businesses such as health care, communication, and food. As a result of path analysis, the authors found that there was a considerable increment of the variance explained (on average of 39%) in purchase intentions by adding the perceived value construct to the service quality and intention model. In addition, service quality was found to be directly, as well as indirectly, related to purchase intentions via perceived value.

In order to predict festival attendees' future behavioral intentions, Lee et al. (2007) investigated the roles of service quality, perceived value, and satisfaction on behavioral intentions. In this study, perceived value and satisfaction have been treated as mediating factors. The result of SEM analysis indicated that service quality and perceived value were found to be the significant predictors of behavioral intentions. In particular, perceived value was revealed to be the best predictor of behavioral intentions. The authors also confirmed the theoretical proposition suggested by Sheth et al. (1991), Sweeney and Soutar (2001), and Petrick (2002a,

2003) that consumption values have differential impacts (relative influences) on consumption behavior.

Petrick (2004a) replicated Cronin et al.'s (2000) study to examine whether the proposed theoretical relationship (i.e., service quality-perceived value-purchase intentions) would hold up in the context of cruise travel. As a result of SEM analysis, the author concluded that service quality was shown to have direct and indirect relationships with repurchase intentions through perceived value, and repurchase intentions were found to be directly related to word-of-mouth. Later, Petrick (2004b) conducted another study to examine the extent to which Petrick's (2002a) five dimensions of perceived value would have predictive validity on cruise passengers' repurchase intentions and to compare the differences of the effect of perceived value on repurchase intentions between first timers and repeaters. As a result of SEM analysis, the author found that that quality was directly related to repurchase intentions, and indirectly related to repurchase intentions through perceived value. These effects existed in both groups. An interesting finding was that the perceived value for the cost was found to be the best predictor of perceived value, whereas quality in general was the best predictor in other studies (Bolton & Drew, 1991; Jayanti & Ghosh, 1996). It appears that behavioral price was related to perceived value only in first timers. Finally, it was revealed that reputation was a good predictor of quality but not a good predictor of perceived value, which was consistent with the finding by Zeithaml (1988).

Recently, Gallarza and Saura (2006) explored the relationships among consumer perceived value, satisfaction, and loyalty in the context of university students' travel behavior. The results of the study indicated that service quality was found to be directly related to perceived value and indirectly related to loyalty via perceived value and satisfaction. While the

exploration and confirmation of the relationship among service quality, perceived value, and behavioral intentions has received considerable attention in marketing, hospitality, and tourism domains, little attention has been paid to the field of sport management. Thus far, only two studies have appeared in major sport management journals (Kwon et al., 2007; Murray & Howat, 2002). Kwon et al. (2007) confirmed the mediating role of perceived value in the relationship between team identification and purchase intentions in the context of team-licensed merchandise consumption. Murray and Howat's (2002) study was the first exploration of the relationship among quality, value, and intentions in the field of sport management. Their findings were consistent with the previous studies in which the authors found that both core service quality and relational service quality were directly related to perceived value, which in turn, influenced future intentions.

Summary

For professional sport teams, ticket sales and media contracts are considered as two main revenue producers (Zhang et al., 1995). Also, sport teams have secondary revenue generators, such as parking, concessions, and the sale of team-licensed products (Zhang et al., 1997a), which are regarded as by-products of ticket sales (game attendance). However, media contracts are generally decided based on unique factors, such as population size in which the team is located, team performance, and the presence of star players or coaches. Due to the requirement of those unique factors, broadcast rights are often enjoyed by select teams and conferences. Therefore, it is essential for team marketers to identify variables that influence game attendance in order to enhance the level of consumption towards game products/services.

In the consumer research domain, constructs such as market demand, game support programs, and perceived value have been shown to be good predictors of behavioral intentions,

which are considered as an immediate antecedent of consumption. Furthermore, those constructs, except for perceived value (Perceived Value for the Cost), have been conceptualized as multi-dimensional in nature (Grönroos, 1984; Petrick, 2002a, Parasuraman et al., 1998; Zhang et al., 1995, 1998a), which has more practical implications than a unidimensional conceptualization. According to Petrick (2002a) and Zhang et al. (2004c), a multi-dimensional scale is desirable because the results would pinpoint areas that need immediate attention. In addition, management can identify the relative performance of each area in which it is succeeding and failing. Cronin et al., (2000) and Oh (1999) suggested a holistic approach of analysis that measures service quality, perceived value, and behavioral intentions simultaneously to better understand why people decide to repurchase or spread word-of-mouth concerning their experience with the products/services. Therefore, adopting its holistic approach, this current study measured the influence of market demand (core service), game support programs (peripheral service), on spectator behavioral intentions as mediated by perceived value.

CHAPTER 3 METHODOLOGY

The method of this study is presented in the following four sections: (a) participants, (b) measurement, (c) procedures, and (d) data analyses. A survey design was conducted to assess the influence of market demand and game support factors on spectator behavioral intentions as mediated by perceived value in the context of professional team sports.

Participants

For the purpose of including professional team sport spectators from diverse backgrounds, the current study employed a community intercept sampling method to recruit research participants. A community intercept method is a modified method of the traditional mall intercept. While a traditional mall intercept is only conducted at shopping malls, community intercept method can be conducted at various public places where sampling can be more representative of the residents in the community, such as grocery stores, shopping malls, churches, movie theaters, sports bars, and mass transportation waiting areas (Brenner, 1996).

Participation in this survey was voluntary, and a participant had to be 18 years of age or older. Research participants were those who resided in the southeastern metropolitan cities or within close proximity, where one or more professional sport teams were franchised, at the time when this survey was conducted. To qualify for participating in the current study, an individual must have experienced attending and also paid for at least one professional team sport event within the past 12 months. These sampling conditions would enable the research participants to be familiar with the game products and services for which they paid (Petrick, 2002a). Thus, the following screening questions were included in the survey form: “Have you attended a professional team sport event within the past 12 months?” Because of the presence of the ‘Perceived Value for the Cost’ factor (Petrick, 2002a; Zeithaml, 1988), it was necessary to

include the second screening question: “If so, did you or your family pay for the game ticket?” Only those people who answered positively to the screening questions were included in the study. Thus, this study was delimited to only those residents who attended at least one professional team sport event and had purchased the game ticket.

In terms of sample size required for advanced statistical analyses (i.e., confirmatory factor analysis and structural equation modeling), Kline (2005) suggested that at least 10 respondents are desirable for each observed variable, which was also recommended by Hair et al. (2005). Considering that the market demand section had a total of 46 observed variables, this study targeted on a minimum number of 460. Contiguous to this objected sample size, a total of 453 respondents from four major metropolitan areas and their proximity communities (Atlanta, Jacksonville, Tampa, and Miami) in the states of Florida and Georgia responded to the questionnaire. These responses were resulted from data collections at seven sport bars, three malls, one grocery store, one community park, and one college campus.

Of the sample, 60.5% were male and 39.5% were female. Nearly 72% of the participants were between 23 and 40 years old, and close to 20% were over 40 years old. The sample included predominantly Caucasians (about 60%). Hispanic (about 20%), African Americans (13.5%), and Asians (about 9%) were among the remaining ethnic groups. Approximately, 55% respondents came from families with 3-4 or 5-6 people in the household; whereas, a single-person household accounted for 20% of the sample. Household income level was widely distributed among the income categories; with about 50% respondents from families of \$60,000 or more and 10% from families of \$100,000 or more annual income, representing an upper-middle and upper levels among professional team sport consumers. In terms of marital status, single was somewhat more dominant (53%) over the married (43%). The respondents were of

good education background, with close to 80% possessing an undergraduate or an advanced degree. Occupation categories were widespread among the respondents, with a majority of them in the management, professional, or educational fields. These characteristics of respondents were consistent with those general backgrounds of professional sport consumers as described by Simmons Market Research Bureau (2007). The consistency would enhance the relevance and applicability of this study to the population of professional team sport game consumers; thus, it was appropriate for this study to proceed.

In terms of the most recent game that the respondents attended, 44.8% of the respondents indicated that they attended a NFL game, followed by an NBA game (25.8%), a MLB game (21.9%), an NHL game (4%), an AFL game (3.3%), and a MLS game (0.2%). Among the sport franchise teams, Jacksonville Jaguars, Tampa Bay Buccaneers, and Miami Dolphins games were the most popularly attended, followed Orlando Magic and Miami Heat games and Tampa Bay Rays and Florida Marlins games (Table 4-1).

Measurement

A questionnaire was formulated based on a comprehensive review of literature and a test of content validity. This preliminary questionnaire included the following five sections: (a) market demand, (b) game support programs, (c) perceived value, (d) behavioral intentions, and (e) demographic information (Appendix A).

Market Demand

Sport games are the core product function of professional sport team. Market demand is related to consumer expectations towards the attributes of the core product (Zhang et al., 2003a). Essentially, it is a cluster of pull factors associated with the game that a professional sport team can offer to its new and returning spectators (Braunstein et al., 2005; Hansen & Gauthier, 1989; Schofield, 1983; Zhang et al., 1995). The market demand section was developed primarily based

on Spectator Decision-Making Inventory (SDMI) (Zhang et al., 1995, 2003b), which originally consists of four dimensions (Home Team, Opposing Team, Game Promotion, and Schedule Convenience). Two additional factors, Economic Consideration and Love of Professional Team Sports, were added based on the indications by numerous researchers such as Braunstein et al. (2005), Hansen and Gauthier (1989), and Schofield (1983). A majority of the items were derived from direct adoptions and modifications of the SDMI and other existing scales. A very small number of items (< 10%) were generated from review of other published literature. In particular, all adoptions and modifications took into consideration the unique product and service features of professional team sports, the general nature of this study with an attempt to include all professional team sports, and validity and reliability evidence of related factors and items. These were consistent with Zhang et al.'s (2003b) indications that when a scale is adopted in settings that are different from the original study, revision and validation are necessary. Variables related to the uniqueness of the sporting event need to be included in such revisions.

Previous scales by Braunstein et al. (2005), Hansen and Gauthier (1989), and Zhang et al. (1995, 2003a, 2003b) followed rigorous measurement procedures in their development, usually including a comprehensive review of literature, formulation of a theoretical framework, qualitative study components such observations and interviews, test of content validity, exploratory and confirmatory factor analyses, and tests of reliability. Thus, adopting items from these previous studies were appropriate. A total of 46 items were included for the six market demand factors: Home Team (10 items), Opposing Team (10 items), Love of Professional Team Sport (10 items), Economic Consideration (6 items), Game Promotion (4 items), and Schedule Convenience (6 items). These items were preceded with the following statement: 'please rate the following variables that might have influenced your decision making to attend the most recent

professional team sport event within the past 12 months.’ A Likert 5-point scale was adopted, ranging from 1 = ‘Not at All’ to 5 = ‘Very Much.’

Game Support Programs

Game support programs were operationalized as the controllable service activities that were related to game operations such as ticket services, stadium accessibility, stadium services, and game amenities to support the production of the core product. Following similar measurement procedures outlined in the market demand section, factors and items for the game support programs were formulated mainly based on three scales, including Spectator Satisfaction Inventory (Zhang et al., 1998a), Spectator Satisfaction Scale (Zhang et al., 2004c), and the Scale of Game Support Programs (Zhang et al., 2005b). These scales were generally developed through appropriate and systematic measurement procedures, usually including a comprehensive review of literature, formulation of a theoretical framework, qualitative study components such observations and interviews, test of content validity, exploratory and confirmatory factor analyses, and tests of reliability. Once again, all adoptions and modifications took into consideration the unique product and service features of professional team sports, the general nature of this study with an attempt to include all professional team sports, and validity and reliability evidence of related factors and items.

A total of 38 items related to game support activities were included in this section, which were under four factors: Ticket Services (10 items), Game Amenities (12 items), Stadium Services (6 items), and Stadium Accessibility (10 items). The items were preceded with the following statement: ‘With respect to the professional team sport event that you most recently attended, please rate the following statements that assess your perceptions of game operation related activities during your attendance.’ A Likert 5-point scale was adopted as in the original scales, ranging from 1 = ‘Very Unsatisfied’ to 5 = ‘Very Satisfied.’

Perceived Value

In the current study, perceived value was represented by a unidimensional factor, Perceived Value for the Cost, as suggested by previous researchers (Kwon et al., 2007; McDougall & Levesque, 2000; Murray & Howat, 2002; Netemeyer et al., 2004). Zeithaml (1988) defined perceived value as consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given. While acknowledging its multi-dimensional aspects, previous studies have consistently found that utilitarian aspect such as perceived value for the cost was found to be more related to consumption behavior (Kwon et al., 2007; Netemeyer et al., 2004). Netemeyer et al. argued that "perceived value for the cost was considered a cornerstone of the most consumer-based-brand-equity frameworks" (p. 211). Kwon et al. supported Netemeyer's rationale by suggesting that a sport consumer tends to weigh the cost versus the benefit to determine perceived value of team-licensed product. Consistent with the empirical suggestions, the current study adopted unidimensional aspect (i.e., perceived value for the cost) to measure perceived value even if the measurement may exclude the potential importance of hedonic aspects of perceived value such as emotional response. A total of five items for the Perceived Value for the Cost factor were derived from Petrick's (2002a) SERV-PERVAL. Development of the SERV-PERVAL underwent rigorous measurement procedures. The original items were slightly modified to be relevant to the professional sport game setting. The items were preceded with the following statement: 'With respect to the professional team sport event that you most recently attended, please rate the following statements that assess your perceptions of game experience during your attendance.' A Likert 5-point scale as in the original scale was adopted, ranging from 1 = 'Definitely False' to 5 = 'Definitely True.'

Behavioral Intentions

Items measuring a spectator's behavioral intentions were generated from Söderlund (2006) and Zeithaml et al.'s (1996) scales, which all followed proper measurement procedures. There were two factors in this section: Repatronage Intentions and Recommend to Others, with each factor having 5 items. The original items were slightly modified in order to be relevant to the professional sport game setting. The items were preceded with the following statement: 'With respect to the professional team sport event that you most recently attended, please rate the following statements that assess your intentions for future attendance at the professional team sport events.' A Likert 5-point scale was adopted, ranging from 1 = 'Strongly Disagree' to 5 = 'Strongly Agree.'

Demographic Information

For the purpose of sample description, demographic background variables were included in the questionnaire, which consists of the following variables: gender, age, number of people in the household, household income, marital status, education, ethnicity, and occupation. Questions were phrased in close-ended multiple-choice format.

Procedures

Following the development of the scales, the preliminary questionnaire submitted to a panel of 10 experts for content validity testing. The panel included five university professors and five practitioners. For the university professors, one specializes in marketing, four in sport management. Among the practitioners, four were event operation coordinators for a NFL team, NHL team, MLB team, or a major intercollegiate athletic department, and one was associate athletics director responsible for marketing and sponsorship programs at a major university athletic program. Each panel member was requested to examine the relevance, representativeness,

and clarity, test format, and item content of the questionnaire and its associated sections. Following the feedback of the panel of members, the preliminary questionnaire was modified, revised, and improved, mainly in the areas of item adequacy, factor relevance, and wording clarity. With the modified version of the questionnaire, a pilot study was conducted to sample of sport consumers who had an experience of attending a professional team sport within the past 12 months ($n = 32$). The purpose of this pilot study was to further examine the content validity from the perspective of targeted population. At this stage, suggested changes and improvements were all minor and they were primarily related to wording clarifications. A survey packet was prepared, which included the revised instrument, a cover letter explaining the purpose of the study and requesting cooperation from a participant, and the Informed Consent form. Approval from the Institutional Review Board for the Protection of Human Participants was then obtained prior to the beginning of data collection.

The researcher first contacted targeted community locations to obtain permissions to conduct the study. Only with permission from a location, a test administration was conducted. Data were then collected at seven sport bars, three malls, one grocery store, one community park, and one college campus in four metropolitan cities and their proximity communities (i.e., Atlanta, Tampa, Jacksonville, and Miami) in the states of Florida and Georgia. All of these cities had at least one professional team sport franchise. To ensure a good representation of professional team sport consumers with different backgrounds in the sample, data collections were conducted on both week days and weekend days. Four trained research assistants provided on-site support with the data collection process. Throughout the data collections, a standardized 9-step procedure was followed: (a) politely approaching all people regardless of gender, age, and race; (b) politely presenting the screening questions to verify the study eligibility; (c) explaining the purpose of the

study; (d) explaining that participation would be voluntary and that participation would be anonymous; (e) explaining that there would be no penalty for not participating or stopping anytime during the survey; (f) presenting the informed consent form; (g) distributing the questionnaire upon an individual agreed to participate; (h) collecting the completed questionnaire; and (i) thanking the individual for his/her time and support for the study (Zhang et al., 2004c). Completing a questionnaire, on average, took approximately 15 minutes. A total of 470 copies of the questionnaire were collected. Of those, 17 questionnaires were discarded due to having non-sporadic missing values, following the suggestions made by Zhang, Pease, and Hui (1996). Therefore, a total of 453 were included in subsequent data analyses and hypothesis testing. Missing values were rarely spotted within the remaining sample of 453 respondents. Among those occasional missing data point, there was no Not-Missing-At-Random (NMAR) data (Rubin, 1987; Schafer & Graham, 2002) were found. Only few Missing-At-Random (MAR) were detected. For those MAR data, mean substitution was applied.

Data Analyses

The total sample of 453 was randomly split into two halves. The first set ($n = 231$) was used for conducting exploratory factor analyses (EFA) of the market demand, game support, perceived value for the cost, and behavior intention variables, respectively. The second data set ($n = 222$) was employed for conducting confirmatory factor analyses (CFA) of the measures and a structural equation modeling (SEM) that examined the relationships among market demand, game support, perceived value for the cost, and behavioral intentions. Procedures in SPSS version 15.0 (SPSS, 2006) were carried out to calculate descriptive statistics for sociodemographic, market demand, game support, perceived value for the cost, and behavioral intentions variables.

Procedures in the SPSS program were employed for executing the EFA and calculating reliability coefficients. Although the factors and items in the measures were adopted from one or two major scales, information from other related studies was also incorporated in the revised questionnaire. Due to this compilation process, an EFA was deemed necessary as the initial step for examining the factor structure of the measures. The primary purpose of the EFA was to identify unique and reliable simple factor structures that are of the potential to be generalized to a universe of variables from a sample of variables, so as to reduce any redundant data. Following an EFA, internal consistency reliability was examined by calculating the Cronbach's alpha coefficients for the identified factors (Cronbach, 1951). In the EFA, alpha factoring extraction (Kaiser & Caffrey, 1965) was applied, followed by promax rotation (Hendrickson & White, 1964) to identify factors. The promax rotation was developed by combining the advantages of varimax (orthogonal) and oblique rotation techniques (Zhang, Smith, Lam, Brimer, & Rodriguez, 2002). "The promax method is first started with an orthogonal solution; the factor matrix is then rotated to the best least-square fit to the ideal solution by the procrustes procedure" (Hurley & Cattell, 1962). Following criteria were used to determine the factors and their items: (a) a factor had an eigenvalue equal to or greater than 1.0 (Kaiser, 1974), (b) an item had a factor loading equal to or greater than .40 (Nunnally & Bernstein, 1994), (c) a factor had at least 3 items, and (d) an identified factor and retained items must be interpretable in the theoretical context. The scree plot test was also utilized to help make a determination on the number of extracted factors (Cattell, 1966).

Procedures in the AMOS version 7.0 (Arbuckle, 2006) were executed for conducting the CFA and the SEM for the retained market demand, game support programs, perceived value for the cost, and behavioral intentions factors that were resolved from the exploratory factor analyses.

According to Bollen (1989) and Hair et al. (2005), executing a CFA needs to follow the following five steps: (a) model specification, (b) model identification, (c) model estimation, (d) testing model fit, and (e) model respecification. If the hypothesized model fits the data well, the confirmed factor structure can be accepted. Model respecification would be needed if the hypothesized model does not fit the data well. Following the suggestions of Hair et al. (2005), several goodness of fit measures were adopted, which included chi-square statistic (χ^2), normed chi-square (χ^2/df), root mean square error of approximation (RMSEA), standardized root mean residual (SRMR), comparative fit index (CFI), and expected cross validation index (ECVI) (Bentler, 1990; Bollen, 1989; Hu & Bentler, 1999; Steiger, 1990). For the chi-square statistic (χ^2), it is expected to have non-significant difference that indicates that there is no difference between expected and observed covariance matrices. However, it has been criticized that chi-square statistic is too sensitive to sample size (Kline, 2005). Thus, it is suggested that chi-square statistic be used, along with other goodness of fit measures (Hair et al., 2005). Oftentimes, normed chi-square is interchangeably called as the chi-square statistic per degrees of freedom (χ^2/df) (Kline). Bollen (1989) suggested that cutoff values of less than 3.0 for the normed chi-square are considered reasonable fit. Browne and Cudeck (1992) indicated that any RMSEA values less than .05 show a close fit. Recently, Hu and Bentler (1999) suggested that RMSEA value of .06 also indicates a close fit. Any values of RMSEA between .06 and .08 indicate acceptable fit. Values of RMSEA between .08 and .10 show mediocre fit. Yet, any values greater than .10 indicates unacceptable fit (Hu & Bentler). SRMR indicates how large residuals are. Therefore, smaller values of SRMR show good fit. Any values less than .10 are considered favorable fit (Kline, 2005). The comparative fit index (CFI) assesses “the relative improvement in fit of the researcher’s model compared with a baseline model (i.e., null model)” (Kline, p.

140). A rule of thumb for CFI is that any values larger than .90 indicate an acceptable fit, and values greater than .95 show a close fit. Lastly, the expected cross validation index (ECVI) measures the fit across samples and has no set criteria. Generally, smaller values are considered better fit of the model.

Three tests were employed to measure the reliability of the scales: Cronbach's coefficient alpha (α) values, construct reliability (CR), and average variance extracted (AVE). The recommended .70 cut-off value were adopted to determine internal consistency (α) and CR (Fornell & Larcker, 1981; Nunnally & Bernstein, 1994). The benchmark value for AVE was .50 suggested by Bagozzi and Yi (1988). Fornell and Larcker (1981) defined CR as an internal consistency measure that accounts for the measurement errors of all indicators. Since the AMOS program does not provide CR values, the researcher in the current study adopted the following formula for the calculation of CR (Hair et al., 2005).

$$(\sum \text{standardized loading})^2 / (\sum \text{standardized loading})^2 + \sum \varepsilon_j \quad (1)$$

Where $(\sum \text{standardized loading})^2$ is the squared sum of the pattern coefficients between the indicator and the latent variable within the construct; $\sum \varepsilon_j$ is the sum of all measurement errors of the indicators within the construct. Another way to determine reliability of the construct is to evaluate AVE values, which is defined as an amount of variance that is accounted for by the construct, relative to the amount of variance due to measurement errors of all indicators (Fornell & Larcker). As with CR value, the AMOS program does not provide AVE value, therefore, the following formula was used (Hair et al., 2005).

$$\sum (\text{standardized loading}^2) / \sum (\text{standardized loading}^2) + \sum \varepsilon_j \quad (2)$$

A convergent validity test was conducted to ascertain this aspect of construct validity. Convergent validity refers to a psychometric property test that measures how well items are

theoretically related to each other (Kline, 2005). To determine convergent validity, the researcher evaluated indicator loadings and critical ratios for each indicator. Since convergent validity refers to how well each indicator loads on a priori latent construct, item's high loading on the respective latent construct indicates good convergent validity. Generally, an item loading value equal to or greater than .707 (i.e., R^2 value $\geq .50$) would be considered an acceptable loading for good convergent validity, indicating that more than 50% of the variance is associated with common variance (Anderson & Gerbing, 1988). Critical ratio is an alternative way to examine convergent validity of the indicators. Regarding critical ratio value, any critical ratio value that exceeds 2.58 for a two-tail test would be considered statistically significant at the .001 level (Arbuckle, 2006). Additionally, discriminant validity was examined to measure how distinct the constructs are one another. To establish discriminant validity, the researcher employed two methods: (a) examination of the interfactor correlations; and (b) comparing squared correlation of any of two latent constructs with AVE value (Fornell & Larcker, 1981). According to Kline (2005), discriminant validity can be established when interfactor correlation is below .85. A more robust way of measuring discriminant validity was suggested by Fornell and Larcker (1981), referring that a squared correlation between two constructs should be lower than the AVE for each construct.

Finally, a SEM test was conducted using the AMOS program to examine the hypothesized structural relationships among the market demand, game support, perceived value for the cost, and behavioral intentions factors. The same fit index criteria were employed to examine the structural model as with the measurement model. Path coefficients were used to determine the direct and indirect relationships among the sets of factors. The SEM analysis provides the basis

for accepting or rejecting the hypothesized relationships among the latent constructs (Kline, 2005).

CHAPTER 4 RESULTS

The results of this study are presented in the following four sections: (a) descriptive statistics, (b) exploratory factor analyses, (c) confirmatory factor analyses, and (d) structural equation model analyses.

Descriptive Statistics

Descriptive statistics including mean and standard deviation for the market demand variables are presented in Table 4-2. Of the 46 items, 38 had a mean score greater than 3.0 (i.e., midpoint on the 5-point Likert scale), indicating that overall market demand variables were considered important when making a decision to attend a professional team sport event. Seven items had a mean score that was lower than the midpoint. Of the all variables in the market demand factor, 'love professional team sport(s)' item had the highest mean score ($M = 4.22$; $SD = 0.95$) and 'web information' item had the lowest mean score ($M = 2.42$; $SD = 1.20$).

Descriptive statistics for the game support programs are reported in Table 4-3. Of the 38 items, 33 had a mean score greater than 3.0, the midpoint on the 5-point Likert scale, indicating that overall game support variables were evaluated with satisfaction by the professional team sport consumers when assessing their game attending experience. Five items had a mean score that was lower than the midpoint. Of the all variables, 'scoreboard information' item had the highest mean score ($M = 3.98$; $SD = 0.86$), and 'mail order' had the lowest mean score ($M = 2.53$; $SD = 1.12$).

Mean and standard deviation for the Perceived Value for the Cost factor are presented in Table 4-4. All variables had a mean score greater than 3.0 midpoints on the 5-point Likert scale, indicating that overall the game experience was considered valuable by the professional team sport consumers. 'The game experience was worth the money' item had the highest mean score

($M = 4.24$; $SD = 0.79$) and ‘the game experience was economical’ had the lowest mean score ($M = 3.61$; $SD = 1.12$). Descriptive statistics for the Behavioral Intention variables are reported in Table 4-5. All variables had a mean score greater than 4.0 points on the 5-point Likert scale, indicating that the level of intention to re-attend a professional team sport event and recommend to others were very likely. Of the variables, ‘I plan on attending more game(s) of this professional sport in the future’ item had the highest mean score ($M = 4.54$; $SD = 0.71$) and ‘I am likely to say positive things about this professional sport game to other people’ had the lowest mean score ($M = 4.34$; $SD = 0.83$).

Additionally, skewness and kurtosis for the items were examined. For the skewness cut-off value, an absolute value of 3.0 would be considered extreme. For the kurtosis threshold value, an absolute score greater than 3.0 would be considered extreme (Chou & Bentler, 1995). In this study, all skewness and kurtosis values for the Market Demand, Game Support, Perceived Value for the Cost, and Behavioral Intention variables were well within the acceptable threshold (Tables 4-2 to 4-5).

Exploratory Factor Analyses

Market Demand

An EFA of the market demand variables was conducted for the purpose of data reduction and identifying a simple structure (Stevens, 1996). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy value (Kaiser, 1974) was .845, suggesting that the sample was appropriate for a factor analysis. Bartlett’s Test of Sphericity (BTS) was 4521.27 ($p < .001$), indicating that the hypothesis of the variance and covariance matrix of the variables as an identity matrix was significantly rejected. Hence, a factor analysis was deemed appropriate. In the EFA, six factors emerged with 31 items meeting the retention criteria, explaining a total variance of 57.69%. The scree plot test also suggested that a six-factor model was the most interpretable. The results of

the rotated pattern matrix from promax rotation are reported in Table 4.6. Based on the pre-determined criterion of an item loading equal to or greater than .40, nine items were eliminated (i.e., high level of performance, home team star player(s), support the home team, high level of skills, weather condition, closeness of competition, opposing team as a rivalry, high level of competitiveness, and good seats). Six other items were removed due to having only one or two items loaded on the respective factors (i.e., home team record breaking performance, athleticism of professional team sport, best players in a sport, location of venue, love professional team sport(s), and popularity of professional team sport). Consequently, the six factors were labeled as Opposing Team (9 items), Home Team (6 items), Game Promotion (5 items), Economic Consideration (4 items), Love of Professional Sport (4 items), and Schedule Convenience (3 items). Alpha coefficients for the factors were .93, .85, .86, .83, .70, and .75, respectively, indicating that they were all internally consistent and reliable. The resolved factor structure was overall consistent with the conceptual model for the market demand variable in this study.

Game Support

An EFA for the game support variables was also conducted for the purpose of data reduction and identifying a simple structure (Stevens, 1996). KMO measure of sampling adequacy value (Kaiser, 1974) was .862, suggesting that the sample was adequate for a factor analysis. BTS was 1962.95 ($p < .001$), indicating that the hypothesis of the variance and covariance matrix of the variables as an identity matrix was rejected. Therefore, a factor analysis was deemed appropriate. In the EFA, five factors emerged with 21 items retained, explaining a total variance of 51%. The scree plot test also suggested that a five-factor model was the most interpretable. The results of the rotated pattern matrix from promax rotation are reported in Table 4.7. Based on the pre-determined criterion of an item loading equal to or greater than .40, five items were eliminated (i.e., give away/prize, ushers, food and drink quality, music volume, and

ease of entrance). Due to lack of interpretability and relevance, three other items were removed (i.e., newness of arena/stadium, efficiency of ticket office, and niceness of arena/stadium). Furthermore, nine variables were also eliminated due to having only one or two items loaded on the respective factors (i.e., replay screens, convenience of ticket sale locations, mail order, food and drink price, ticket personnel friendliness, music selection, ticket agencies, public transportation, and web (on-line) order procedures). Consequently, of the original 38 items for game support programs, 21 items were retained under five factors: Game Amenities (6 items), Arena/Stadium Services (5 items), Ticket Service (3 items), Arena/Stadium Convenience (4 items), and Arena/Stadium Accessibility (3 items). Alpha coefficients for the factors were .88, .77, .73, .74, and .66, respectively, indicating that they were of acceptable internal consistency. Although slightly different from the conceptual model for the game support programs in this study, the factor structure was essentially consistent with the proposed measurement model. The slight difference might be an indication that the current study examined game operational activities of all major professional team sport events from a general perspective, unlike previous studies that focused on a specific event.

Perceived Value for the Cost

An EFA was also conducted for the Perceived Value for the Cost factor for the purpose of validating the unidimensionality (Stevens, 1996). KMO was .840, suggesting that the sample was adequate for a factor analysis. BTS was 672.58 ($p < .001$), indicating that the hypothesis of the variance and covariance matrix of the variables as an identity matrix was rejected. Therefore, a factor analysis was appropriate. Following the EFA, all five items under the single factor were retained, explaining a total variance of 61.9%. The scree plot test also suggested that a one-factor model was the most interpretable. Items loadings were as follows: .702, .742, .774, .815, and .888 for the items, respectively. Due to the single factor structure, the promax rotation was

not needed. Alpha coefficient for the factor was .89, indicating that the factor was internally consistent and reliable.

Behavioral Intentions

An EFA was conducted for the Behavioral Intention variables for the purpose of data reduction and identifying simple structure (Stevens, 1996). KMO was .939, suggesting that the sample was adequate for a factor analysis. BTS was 1916.44 ($p < .001$), indicating that the hypothesis of the variance and covariance matrix of the variables as an identity matrix was rejected. Therefore, a factor analysis was deemed appropriate. In the EFA, one factor was extracted with all 10 items retained, explaining a total variance of 64.74%. The scree plot test also suggested that a one-factor model was the most interpretable. Items loadings were as follows: .847 (Repurchase Intentions item 1), .874 (Repurchase Intentions item 2), .828 (Repurchase Intentions item 3), .816 (Repurchase Intentions item 4), .774 (Repurchase Intentions item 5), .815 (Recommend to Others item 1), .762 (Recommend to Others item 2), .898 (Recommend to Others item 3), .717 (Recommend to Others item 4), and .691 (Recommend to Others item 5). Due to the fact that only one factor was extracted, the promax rotation was not needed. The factor was labeled as Behavioral Intentions. The factor structure resolved from the EFA was not consistent with the original two-factor model proposed in this study. However, the number of items (i.e., 10) was retained consistent with the proposed model. Alpha coefficients for the factor was .95, indicating that it was internally consistent and reliable.

Measurement Models: Confirmatory Factor Analyses

Market Demand

The second data set for the market demand variables, that contained 31 items under six factors, was submitted to a CFA, using ML estimation (Hair et al., 2005). Goodness of fit indexes revealed that the six-factor and 31-item measurement model did not fit the data well

(Table 4-8). The chi-square statistic was significant ($\chi^2 = 1340.89, p < .001$), indicating that the hypothesized model and the observed model had statistically significant difference. Because chi-square value is known to be sensitive to sample size (Kline, 2005), alternative fit indices were further examined, including the normed chi-square, RMSEA, SRMR, CFI, and ECVI. A value of the normed chi-square ($\chi^2/df = 3.20$) was above the suggested cut-off value (i.e., < 3.0 ; Bollen, 1989). The RMSEA value indicated that the six-factor model showed a poor fit (RMSEA = .10, 90% CI = .094 - .106; Hu & Bentler, 1999). Although the value of SRMR (.077) was within the range of acceptable fit ($\leq .10$; Kline, 2005), the CFI value of .78 was substantially lower than the recommended cut-off ratio ($> .90$; Hu & Bentler, 1999), indicating an overall lack of fit to the data. The model fit tests suggested a need for respecification. According to Tabachnick and Fidell (2001), model respecification would be needed if the proposed model did not fit the data well. Poor indicator loadings also supported a model respecification. Adopting a conservative criterion in order for the scale to have good convergent validity, an indicator loading should be equal to or greater than .707 (Anderson & Gerbing, 1988). In the current study, indicator loadings ranged from .398 (group ticket cost) to .903 (advertising). Of 31 items, nine items were below .707, indicating a lack of convergent validity. Therefore, the nine items were removed (opposing team history and tradition, home team exciting play, web information, travel distance, played that sport(s), speed of game, group ticket cost, duration of the game, and home team history and tradition). Furthermore, modification indexes suggested additional item elimination. After careful consideration of both statistical and theoretical justifications, a decision was made to remove five more items, which were highly double loaded (opposing team star player(s), home team exciting play, opposing team league standing, publicity, and player charisma of opposing team).

As a result of the model respecification, a five-factor model with 17 items was conceptualized: Home Team (3 items), Opposing Team (5 items), Game Promotion (3 items), Economic Consideration (3 items), and Schedule Convenience (3 items). This was consistent with the recommendations made by Bollen (1989) in that each factor consisted of at least three items. A five-factor model with 17 items was further submitted to a CFA. Overall goodness of fit revealed that the five-factor model fit the data reasonably well (Table 4-8). Chi-square statistic was significant ($\chi^2 = 278.31, p < .001$). The normed chi-square ($\chi^2/df = 2.55$) was lower than the suggested cut-off value (i.e., < 3.0 ; Bollen, 1989). The RMSEA value indicated that the five-factor model had an acceptable fit (RMSEA = .084, 90% CI = .072 - .096; Hu & Bentler, 1999). The SRMR (.054) was of a good value ($\leq .10$; Kline, 2005). CFI was .93, which was considered acceptable (Kline). ECVI was 1.66, which indicated a much better fit than that of the six-factor model. ECVI has no pre-determined range of values (Kline), but it is generally used to compare models, with a smaller value indicating better model fit. Overall model fit of the five-factor model improved drastically, indicating its acceptability.

The reliability of the factors and respective items was evaluated by Cronbach's alpha, CR, and AVE (Table 4-16). Cronbach's alpha values for the five-factor model indicated that all factors were well above the acceptable threshold (i.e., greater than .70) suggested by Hair et al. (2005), ranging from .80 (Schedule Convenience) to .91 (Opposing Team). The CR values for the five constructs of market demand were above the recommended cut-off criterion (Fornell & Larcker, 1981), ranging from .76 (Economic Consideration) to .82 (Opposing Team). All AVE values were also above the suggested standard, ranging from .52 (Economic Consideration) to .64 (Opposing Team). Based on the overall information of reliability, the determined factors were deemed reliable.

A convergent validity test was conducted by evaluating indicator loadings and critical ratio values. All of the indicator loadings were greater than the suggested standard of .707 (Anderson & Gerbing, 1988) except for one item on Schedule Convenience ('day of the week' with a value of .67). A decision was made to retain the item due to its theoretical relevance to the Schedule Convenience factor and only slightly lower than .707 threshold. Critical ratio values ranged from 8.99 (home team reputation) to 16.79 (overall quality of opposing team players), indicating that all values were statistically significant. Overall, the five-factor of the market demand showed excellent convergent validity (Table 4-16).

According to Kline (2005), discriminant validity can be established when interfactor correlation is below .85. No interfactor correlations were above .85, ranging from .193 (between Game Promotion and Economic Consideration) to .511 (between Economic Consideration and Schedule Convenience), indicating very good discriminant validity. The Fornell and Larcker's test found that all squared correlations in the scale were less than AVE value for respective construct, indicating excellent discriminant validity (Tables 4-13 for interfactor correlations and 4-16 for AVE). Thus, the five-factor model was used for a subsequent SEM analysis. A graphical representation of the five-factor market demand model is presented in Figure 4-2.

Game Support Programs

Data for the game support programs that contained five factors with 21 items were submitted to a CFA, using ML estimation method (Hair et al., 2005). Goodness of fit indexes revealed that the five-factor measurement model did not fit the data well (Table 4-9). Values of model fit indices were as follows: $\chi^2 = 482.84$ ($p < .001$); $\chi^2/df = 2.70$; RMSEA = .088, 90% CI = .078 - .097; SRMR = .077, CFI = .78, and ECVI = 2.66. The model fit tests suggested a need for respecification. Poor indicator loadings also supported a model respecification. Only seven out of 21 variables had loadings above .707, a very high and conservative criterion (Anderson &

Gerbing, 1988). Rather, a comparatively modest criterion was adopted to assess the relevance of the items (Meyers, Gamst, & Guarino, 2006). Besides Meyers et al., other researchers (Nunnally & Bernstein, 1994) have also suggested that if an indicator loading is equal to or greater than .50, it indicates that the pattern coefficient achieves meaningful significance. Based on this criterion, six items were eliminated (public address system, scoreboard information, traffic/crowd control, seating directions, game calendar and schedule, and restroom cleanliness). Consequently, a four-factor model with 15 items was respecified: Game Amenities (6 items), Ticket Service (3 items), Stadium Service (3 items), and Stadium Accessibility (3 items). As recommended by Bollen (1989), each factor consisted of at least three items. A four-factor model with 15 items was further submitted to a CFA. Overall goodness of fit indexes revealed that the four-factor model fit the data reasonably well (Table 4-9). Chi-square statistic was significant ($\chi^2 = 212.44, p < .001$). The normed chi-square ($\chi^2/df = 2.53$) was lower than the suggested cut-off value (i.e., < 3.0 ; Bollen, 1989). The RMSEA value indicated that the four-factor model had an acceptable fit (RMSEA = .083, 90% CI = .069 - .097; Hu & Bentler, 1999). The value of SRMR (.068) was of a good value ($\leq .10$; Kline, 2005). CFI was .89, which was marginally acceptable (Meyers et al., 2006). ECVI was 1.29, which indicated a much better fit than that of the five-factor model.

However, the interfactor correlation between Stadium Service and Stadium Accessibility was excessively high (1.06), suggesting that the two factors be combined into one factor, labeled Venue Quality. Therefore, a three-factor model was respecified. The overall model fit remained almost the same as the four-factor model ($\chi^2 = 219.04, p < .001$; $\chi^2/df = 2.52$; RMSEA = .083, 90% CI = .069 - .97; SRMR = .07, CFI = .89, and ECVI = 1.29). Since the three-factor model was statistically more feasible in the current study, the three-factor model was used for subsequent analyses (i.e., reliability, convergent, and discriminant validity).

The reliability of the factors and respective items was evaluated by Cronbach's alpha, CR, and AVE (Table 4-17). Cronbach's alpha values for the three-factor model indicated that all factors were well above the acceptable threshold (i.e., greater than .70) suggested by Hair et al. (2005), ranging from .74 (Ticket Service) to .85 (Game Amenities). The CR values for the all three constructs of game support programs were above the recommended cut-off criterion (Fornell & Larcker, 1981), ranging from .72 (Ticket Service) to .86 (Game Amenities). However, two of the three AVE values were below the suggested standard (i.e., .47 for Ticket Service; .41 for Venue Quality). These low AVE values might have been caused by low indicator loadings of Ticket Service and Venue Quality factors. Considering the high Cronbach's alpha and CR coefficients of these factors, the slightly low AVE values were not of great concerns for the factors. A convergent validity test was conducted by evaluating indicator loadings and critical ratio values. Nine indicator loadings out of 15 were lower than the suggested standard of .707 (Anderson & Gerbing, 1988). However, all loadings were above the modest criterion (Meyers et al., 2006) except for one item on Venue Quality ('ease of entrance' with a value of .44). A decision was made to retain the item due to its theoretical relevance to the Venue Quality factor. CR values ranged from 5.70 (ease of entrance) to 10.75 (intermission/half-game entertainments), indicating that all values were statistically significant. Overall, the three-factor model of the game support programs showed acceptable convergent validity (Table 4-17).

No interfactor correlations were above .85, ranging from .363 (between Ticket Service and Venue Quality) to .634 (between Game Amenities and Venue Quality), indicating excellent discriminant validity. The Fornell and Larcker's test found that all squared correlations in the scale were less than AVE value for respective construct, indicating robust discriminant validity (Tables 4-14 for interfactor correlations and 4-17 for AVE). Therefore, the three-factor model

was used for a subsequent SEM analysis. A graphical representation of the three-factor game support programs model is presented in Figure 4-3.

Perceived Value for the Cost

Data for the five Perceived Value for the Cost variables were submitted to a CFA using ML estimation method (Hair et al., 2005). Goodness of fit indexes revealed that the one-factor measurement model did not fit the data well (Table 4-10). Values of the fit indices were as follows: $\chi^2 = 138.39$ ($p < .001$); $\chi^2/df = 27.68$; RMSEA = .347, 90% CI = .299 - .399; SRMR = .172, CFI = .76, and ECVI = .72. The model fit tests suggested a respecification. Poor indicator loadings also supported a model respecification. Indicator loadings for two of the items were .103 and .138, respectively, which were far below the recommended standard (Anderson & Gerbing, 1988). As a result, the two items were eliminated (the game experience was a good buy and the game experience was worth the money). A three-item model was respecified, which met Bollen's (1989) suggestion that a factor for CFA should have at least three items. Overall goodness of fit of the three-item model fit the data reasonably well (Table 4-10). All fit indices achieved substantial improvement ($\chi^2 = 2.79$, $p < .001$; $\chi^2/df = 2.79$; RMSEA = .090, 90% CI = .000 - .223; SRMR = .001; CFI = .99; and ECVI = .069).

The reliability of the factor and respective items was evaluated by Cronbach's alpha, CR, and AVE (Table 4-18). Cronbach's alpha value (.90) for the three-item model was well above the suggested threshold (i.e., greater than .70) suggested by Hair et al. (2005). The CR (.88) and AVE (.71) values for the model were also well above the recommended cut-off criteria (Fornell & Larcker, 1981). Based on the overall information of reliability, the three-item of Perceived Value for the Cost model showed excellent reliability.

Convergent validity was conducted by evaluating indicator loadings and critical ratio values. All indicator loadings were well above the conservative standard of .707 (Anderson &

Gerbing, 1988). Critical ratio value was 16.12 (the game experience was economical), indicating that the value was statistically significant. Overall, the three-item model showed excellent convergent validity (Table 4-18). Therefore, the three-item model was used for a subsequent SEM analysis. A graphical representation of the three-item model is presented in Figure 4-4.

Behavioral Intentions

Data for the single Behavioral Intentions factor and its 10 items were submitted to a CFA, using ML estimation method (Hair et al., 2005). Goodness of fit indexes revealed that the one-factor measurement model did not fit the data well (Table 4-11). Values of the fit indices were as follows: $\chi^2 = 157.04$ ($p < .001$); $\chi^2/df = 4.49$; RMSEA = .126, 90% CI = .106 - .146; SRMR = .048, CFI = .92, and ECVI: .89. The model fit tests suggested a need for respecification. Two items did not meet the .707 criterion (Anderson & Gerbing, 1988). In addition, modification indexes indicated that specifying correlation between two latent error variables (Items 2 and 3 related to Repatronage Intentions) would yield a substantial impact in better fit. However, there was no theoretical justification for an error variable correlation. Thus, after carefully considering item contents, a decision was made for eliminating the two items since the other three items in the same factor were measuring the same content. The same reason was adopted for item 2, 4, and 5 that were related to Recommend to Others. Consequently, a one-factor model with five items was respecified. All fit indices achieved substantial improvement (Table 4-11) ($\chi^2 = 14.99$, $p < .001$; $\chi^2/df = 3.00$; RMSEA = .095, 90% CI = .042 - .152; SRMR = .019; CFI = .99; and ECVI = .20).

The reliability of the factor and respective items was evaluated by Cronbach's alpha, CR, and AVE (Table 4-19). Cronbach's alpha value of .93 for the one-factor model was well above the suggested threshold (Hair et al., 2005). The CR (.95) and AVE (.79) values for the model

were also well above the recommended cut-off criteria (Fornell & Larcker, 1981). Based on the overall information of reliability, the one-factor model showed excellent reliability.

Convergent validity was conducted by evaluating indicator loadings and critical ratio values. All indicator loadings were well above the conservative standard of .707 (Anderson & Gerbing, 1988), ranging from .78 (I plan on attending more game(s) of this professional sport in the future) to .89 (I am likely to re-attend game(s) next season). Critical ratio values ranged from 14.22 to 17.89, indicating that the values were statistically significant. Overall, the one factor, five-item model of the Behavioral Intentions showed excellent convergent validity (Table 4-19). Therefore, the five-item model was used for a subsequent SEM analysis. A visual representation of the five-item of Behavioral Intention model is presented in Figure 4-5.

Structural Model

The second data set was also used for conducting a SEM to test the hypotheses of this study. Prior to estimating path coefficients for the hypothesized structural model, goodness of fit indexes for the overall measurement model was first evaluated. The overall model fit was reasonably well (Table 4-12). Chi-square statistic was significant ($\chi^2 = 1544.33, p < .001$), and the normed chi-square ($\chi^2/df = 2.22$) was lower than the suggested cut-off value (i.e., < 3.0 ; Bollen, 1989). The RMSEA value indicated that the structural model had an acceptable fit (RMSEA = .070, 90% CI = .065 - .074; Hu & Bentler, 1999). The value of SRMR (.067) was of a good value ($\leq .10$; Kline, 2005). Only CFI was slightly below the suggested standard, with a value of .86. According to Cheung and Rensvold (2002), CFI value tends to be sensitive to model complexity, which may explain why the value of the CFI decreased, when compared to the separate measurement model assessments for the market demand, game support, Perceived Value for the Cost, and Behavioral Intentions variables. Although a respecification was needed to improve the overall model fit, a decision was made not to modify due to two reasons: (a)

except for CFI value, most of the alternative model fit indices indicated good values and (b) it might be possible to lose theoretical values from the specified model when a respecification was initiated.

The reliability of the factors was evaluated by CR and AVE. Table 4-15 presents interfactor correlations, CR, and AVE values. All values of CR were above the suggested threshold, ranging from .72 (Ticket Service) to .92 (Perceived Value for the Cost and Behavioral Intentions). All AVE values were above the suggested threshold (Hair et al., 2005) except for two factors: .36 (Venue Quality) and .47 (Ticket Service). Notwithstanding the two low AVE values, it can be concluded that all factors in the hypothesized structural model showed acceptable reliability.

To determine convergent validity, the researcher evaluated item loadings and critical ratio values for each indicator. As a result, all loadings were significant ($p < .001$). Item loadings ranged from .498 to .922. Critical ratio values indicated that they were all above the cut-off criterion, which was above 2.58 at the .001 level, ranging from 6.04 to 20.01. Based on the results of loadings and critical ratio values, the hypothesized structural model showed good convergent validity.

None of the interfactor correlations were above the suggested threshold (.85; Kline, 2005), ranging from .200 (between Home Team and Venue Quality) to .558 (between Game Amenities and Venue Quality), indicating excellent discriminant validity (Kline, 2005). As a result of Fornell and Larcker's method, it was found that none of the squared correlations between any of the two constructs in the structural model were above the AVE value of the respective construct, which indicated strong discriminant validity of the model. Therefore, it can be concluded that the hypothesized structural model showed strong discriminant validity on the sample data. Having

satisfied the psychometric properties of the measurement model, it was appropriate to proceed to examine the structural relationships among the different set of factors.

The hypothesized structural model was estimated to examine the hypotheses with regard to the effect of market demand and game support factors on Behavioral Intentions as mediated by Perceived Value for the Cost (Table 4-20). The tested model included a total of 10 latent constructs (Figure 4-5). More specifically, there were five latent variables representing market demand and three latent variables for game support programs, a mediated latent variable of Perceived Value for the Cost, and an endogenous latent variable of Behavioral Intentions.

The standardized direct effect of Home Team had a positive influence on Behavioral Intentions ($\beta = .281, p < .01$), indicating that when perceptions towards Home Team increased by one standard deviation, Behavioral Intentions also increased by .281 standard deviations. Therefore, Hypothesis 1 was supported. The standardized direct effect of Opposing Team was found to exert a positive influence on enhancing Behavioral Intentions ($\beta = .246, p < .01$), which indicated that when perceptions regarding Opposing Team increased up by one standard deviation, Behavioral Intentions increased also by .246 standard deviations. Therefore, Hypothesis 2 was supported. Hypothesis 3 was related to the effect of Love of Professional Sport on Behavioral Intentions. However, Hypothesis 3 was not estimated because the factor was found to be a less relevant factor of market demand by means of CFA. The standardized direct effect of Economic Consideration was found not to be related to Behavioral Intentions ($\beta = .021, p = .769$). Therefore, Hypothesis 4 was not supported.

Hypothesis 5 dealt with the direct effect of Game Promotion on Behavioral Intentions. The findings revealed that the direct effect of Game Promotion had an inverse relationship with Behavioral Intentions ($\beta = -.319, p < .01$), indicating that when perceptions towards Game

Promotion increased by 1 standard deviation, Behavioral Intentions decreased by .319 standard deviations. Although a relational direction was not supported (i.e., originally it was hypothesized to have a positive effect), the influence was statistically significant ($p < .01$). Therefore, Hypothesis 5 was partially supported. The standardized direct effect of Schedule Convenience was not found to be related to Behavioral Intentions ($\beta = -.215, p = .062$). Hence, Hypothesis 6 was not supported.

With regard to the standardized direct effects of factors of game support programs on Behavioral Intentions, only Game Amenities was found to be positively related to Behavioral Intentions ($\beta = .246, p < .05$). As a result, Hypothesis 7 was supported. The remaining two hypotheses that specified the effect of Ticket Service on Behavioral Intentions and the direct effect of Venue Quality on Behavioral Intentions were not found to be statistically significant ($\beta = -.161, p = .135$) and ($\beta = -.215, p = .075$), respectively. Therefore, Hypothesis 8, 9, and 10 were not supported. However, the standardized direct effect of Perceived Value for the Cost on Behavioral Intentions was found to be statistically significant ($\beta = .240, p < .01$), therefore, Hypothesis 11 was supported.

One of the aims of this study was to examine the mediating effect of Perceived Value for the Cost. A total of eight mediating analyses were conducted. It was found that Perceived Value for the Cost played a mediating role only in the relationship between Venue Quality and Behavioral Intentions ($\beta = .083, p < .05$). In terms of the calculation for the indirect effect, the standardized indirect effect of Venue Quality on Behavioral Intentions through Perceived Value for the Cost was estimated as the product of the standardized path coefficients for the paths of Venue Quality to Perceived Value for the Cost ($\beta = .346, p < .01$) and Perceived Value for the Cost to Behavioral Intentions ($\beta = .240, p < .01$), which yielded $\beta = .083, p < .05$. This result

indicated that Behavioral Intentions were expected to enhance by .083 standard deviations for every increase in Venue Quality of one full standard deviation through its prior effect on Perceived Value for the Cost. Therefore, Hypothesis 13 was supported. None of the market demand factors were found to be indirectly related to Behavioral Intentions through Perceived Value for the Cost, therefore, Hypothesis 12 was not supported.

CHAPTER 5 DISCUSSION

The discussion of this study is presented in the following three sections: (a) measurement properties, (b) hypotheses testing, and (c) additional suggestions.

As market competition is becoming more intensified in professional team sports, it is imperative for both researchers and practitioners to identify those variables that directly and indirectly influence game consumption (Hansen & Gauthier, 1989; Zhang et al., 1995). An in-depth understanding of what factors influence spectators to decide to return to the game, and how they refer the game products and services to others, is crucial for professional teams to better understand spectator consumption behavior.

Findings of previous studies revealed that market demand variables and game support programs were important predictors of sport spectator consumption behavior (Kwon et al., 2007; Murray & Howat, 2002; Wakefield & Blodgett, 1996; Zhang et al., 1995, 1998a, 2004b). However, these two concepts have usually been studied fragmentarily (Cronin & Taylor, 1992; Ko & Pastore, 2005; Parasuraman, Zeithaml, & Berry, 1998; Wakefield & Sloan, 1995; Zhang et al., 1995, 2004c). Although previous researchers recognized the importance of market demand variables and game support programs when marketing professional sport games, only a small number of studies have examined both sets of variables simultaneously (Greenwell et al., 2002; Tsuji et al., 200). Of those studies containing both concepts, over-simplicity was a major concern. Furthermore, previous studies failed to consider unique features related to professional team sport events. Therefore, it is essential for a study to incorporate the uniqueness and special characteristics of the core product, product extensions, and market environment (Mullen et al., 2007; Zhang et al., 2003b). Additionally, previous studies have revealed that only a small portion of game attendance variance (i.e., less than 50%) were explained by market demand variables

and game support programs (Greenwell et al., 2002; Tsuji et al., 2007; Wakefield & Blodgett, 1996; Zhang et al., 1995, 1998a, 2004b). Low variance explanation may be due to the overlook of the potential influences of some intervening variables, such as perceived value, on the relationship between sport production and game consumption. Therefore, studying game product variables and perceived value simultaneously is critical to gaining a more comprehensive understanding of what influence spectators to repatronage the game and how they conduct word-of-mouth promotions. The current study was designed to fill this void by examining the structural relationships of market demand variables and game support programs to professional team sport attendance; in the meantime, the mediating influence of perceived value was taken into consideration. In this study, rigorous psychometric testing procedures were first conducted for the four constructs (i.e., market demand, game support programs, perceived value for the cost, and behavioral intentions). A SEM analysis was executed to test the hypotheses.

Measurement Properties

Systematic procedures were undertaken to formulate the preliminary questionnaire and its sections, which included a comprehensive review of literature, interviews of sport industry practitioners, and test of content validity by a panel of experts and a pilot study group of consumers representing the targeted population. It was the intention of the researcher to enhance research finding generalizability of this study by adopting the community intercept approach. Data collection was conducted at various locations in four major metropolitan areas, which also supported this intention. Previous studies usually studied professional sport consumers at a limited number of sport events in one geographic location. It was the intention of this study to include consumers of comparatively more diverse backgrounds in terms of geographic locations and sport types so as to improve the external validity of this study.

In this study, both EFA and CFA were conducted to ensure theoretical relevance, generalizability, and usefulness of the resolved factor structures. For the market demand variables, six factors with 31 items were retained in the EFA: (a) Opposing Team, (b) Home Team, (c) Game Promotion, (d) Economic Consideration, (e) Love of Professional Sport, and (f) Schedule Convenience. The derived factors from the EFA were consistent with the theoretical dimensions suggested by previous researchers (Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983; Zhang et al., 1995). However, the six-factor model did not fit the data well in the initial CFA. After careful consideration of statistical and theoretical evidence, the scale was revised to a five-factor model with a total of 17 items: Opposing Team (5 items), Home Team (3 items), Game Promotion (3 items), Economic Consideration (3 items), and Schedule Convenience (3 items). This respecified model exhibited much improved fit indexes. As a result of the respecification, the Love of Professional Sport factor was eliminated, mainly due to low indicator loadings and low critical ratio values. In previous studies, Love of Sport was found to be a contributing variable to game attendance of college sports (Ferreira & Armstrong, 2004) and game consumption of professional sports (Zhang et al., 2003a). In Braunstein et al.'s (2005) study, the researchers found that Love of Baseball was an important factor related to MLB spring training; yet, the factor displayed poor psychometric properties. The factor was eventually retained by the researchers based on the consideration that Love of Sport covers detailed characteristics of sport events, such as closeness of competition, duration of game, high level of skills, best players in a sport, and/or speed of game. Although the researchers were reluctant to eliminate this factor, they did suggest the need for further studies of this factor. Although the current study conducted rigorous procedures in item purification, test of content validity, and a pilot study, similar findings occurred. As Braunstein et al. suggested, more

examinations are necessary for this factor in future studies. A key issue is how to keep Love of Sport factor theoretically separated with Home Team and Opposing Team factors because the factor analyses in the current study revealed that Love of Sport items were double loaded with these two factors.

Although the number of factors was reduced to five, the resolved constructs of the market demand were essentially consistent with previously suggested factors (Braunstein et al., 2005; Schofield, 1983; Zhang et al., 1995; 2003b, 2004a). Schofield (1983) proposed four market demand categories, including Demographic Variables, Economic Variables, Game Attractiveness, and Residual Preference. Economic Variables were related to Game Promotion and Economic Consideration, Game Attractiveness contained items relevant to athlete/team performances, history, and reputation of Home Team and Opposing Team, and Residual Preference in Schofield's (1983) study consisted of variables related to Schedule Convenience. Synthesizing Schofield's four factors, key game demand variables, and production functions, Zhang et al. (1995, 2003b) developed a four-factor model of market demand (Home Team, Opposing Team, Game Promotion, and Schedule Convenience) and included the factors in the Spectator Decision Making Inventory (SDMI). In the context of MLB spring training, Braunstein et al. (2005) developed an eight-factor model that consisted of Home Team, Opposing Team, Game Promotion, Vacation Activity, Economic Consideration, Schedule Convenience, Nostalgic Sentiment, and Love of Baseball. In an attempt to assess market demand of general professional sport events, Zhang et al. (2003a) identified three factors: Game Attractiveness, Marketing Promotion, and Economic Consideration. When the general market demand factors were applied to a NFL expansion team, Zhang et al. (2004a) found consistent factor structure (i.e., Game Attractiveness, Marketing Promotion, Economic Consideration, and Socializational Opportunity).

Overall, the resolved factor structure in the current study was consistent with the indications of previous researchers.

Although the current study reconfirmed the factor structure of the market demand suggested by previous studies, findings of this study were likely improved and more generalizable when considering the following three aspects: (a) a more representative sample was involved, (b) a comprehensive study was designed and carried out in the study, including various statistical analyses such as EFA and CFA, and (c) better psychometric properties were obtained. In previous studies, data were usually collected on-site in arenas or stadiums (Zhang et al., 1995, 2003b), where only spectators of one sport event participated in the study and they might be under temporal influence due to an instant moment of winning or losing. The respondents of the current study were current sport consumers who indicated that they attended a professional team sport event within past 12 months. Descriptive statistics indicated that a total of six premier professional team sport leagues were attended by the respondents, which may help improve the generalizability of findings. Additionally, Zhang et al. (2003b) suggested that besides EFA and CFA, other types of construct validity, including convergent and discriminant validity tests be utilized to improve the factor structure. These suggestions made by previous researchers were materialized in the current study.

The current study retained at least three items per factor through the CFA. One of the limitations found in Zhang et al.'s (2003b) study was that the Opposing Team and Schedule Convenience factors were measured by only two items. When using CFA and SEM analyses, the number of items per factor is important for measurement precision, based upon the following two important points: (a) optimal number of items per factor, and (b) meaningfulness of the factor. In terms of an optimal number of items per factor, Bollen (1989) argued that two items

could cause an estimation problem with a small sample size (i.e., less than 100). Although Zhang et al.'s (2003b) study had a large sample size ($N = 685$), based on the findings from previous studies on optimal number of indicators per factor, three items per factor are considered ideal (Bollen, 1989; Kline, 2005; Marsh, Balla, & McDonald, 1988). The possible reason that two items of Opposing Team and Schedule Convenience factors were consistently used in previous studies may be due to the use of EFA as the primary item selection method, which is data-driven. In this regard, the current study improved in that five items and three items related to Opposing Team and Schedule Convenience, respectively, were retained by factor analyses. The items of the Opposing Team represented overall performance, quality of opposing teams, quality of players, opposing team's exciting play, and team reputation. Schedule Convenience was represented by such attributes as game time of the day, convenient game schedule, and day of the week. Nonetheless, more work to validate the items related to Opposing Team and Schedule Convenience factors is necessary in future studies.

In addition to measuring market demand that is related to core product function (i.e., the game itself), this study assessed professional team sport consumers' perceptions towards peripheral service quality and examined how their satisfaction with event operation activities would affect their future consumption behaviors. Taking into consideration the unique aspects that were related to professional team sports; this study adopted, modified, and revised existing scales measuring game support programs of professional team sports (Zhang et al., 1998a, 2004, 2005b). Unlike previous studies that measured game support programs related to specific professional games (e.g., minor league hockey games), the current study attempted to assess game support programs that could be generalized to all professional team sports. In addition to adopting existing scales (SSI, SSS, and SGSP), other relevant items were incorporated into the

measurement of the game support programs. Zhang et al., (2003b) stressed that having a reliable, valid, and generalizable scale must be a priority when studying service quality issues associated with specific areas of event operations. Following this notion, rigorous measurement procedures were conducted in this study to develop a measure for game support programs, including a thorough review of literature, test of content validity, and examinations of construct validity. Five factors with 21 items were retained in the EFA: (a) Game Amenities, (b) Arena/Stadium Services, (c) Arena/Stadium Convenience, (d) Ticket Service, and (e) Arena/Stadium Accessibility. These factors were consistent with the theoretical dimensions suggested by previous studies (Grönroos, 1984; Zhang et al., 1998a, 2005b). However, the five-factor model did not fit the data well in the initial CFA. Following careful statistical and theoretical considerations, the scale was respecified to a three-factor model with 15 items: Game Amenities, Ticket Service, and Venue Quality. The current model showed much improved fit indexes, along with convergent and discriminant validity, and reliability.

One noticeable factor solution that emerged in this study was that due to high interfactor correlation, two separate factors, Arena/Stadium Services and Arena/Stadium Accessibility, were combined into a single construct, Venue Quality. Although the number of factors was reduced to three, all of the items in the four-factor model were retained. Although somewhat different from the findings of previous studies, the resolved factor structure in this study still well reflected those factors derived in previous studies (Zhang et al., 1998a, 2005b). For instance, in a minor league hockey study, Zhang et al.'s (2005b) found high interfactor correlations between Arena/Stadium Services and Arena/Stadium Accessibility; thus, the researchers commented that “the two factors can be merged to form one single construct or they may be influenced by another latent variable” (p. 64). Another possible explanation may be related to respondents’

memory decay. Unlike previous studies, the current study recruited respondents who reported that they attended a professional team sporting event within the past 12 months at the time when the survey was conducted. With the passing of time, consumers might have had a difficult time to clearly distinguish between the Arena/Stadium Service and Arena/Stadium Accessibility factors particularly when both of these factors assessed attributes related to services and accessibility. Nevertheless, further studies are suggested to confirm the factor structure of the two latent constructs. In future studies, it may be worthwhile to have several competing models for game support programs, including a five-factor model (Zhang et al., 1998a), four-factor model (Zhang et al., 2005b), three-factor model suggested by the current study, and a second-order model. Although the current study showed a slight difference compared to previous studies with regard to factor structure of the game support programs, findings of this study has its uniqueness in that the scale of the current study extended its viability to general professional team sports. There have been no scales measuring general game support programs related to professional team sports. The existing two scales (SSI and SGSP) by Zhang et al. (1998a, 2005b) were specifically designed to measure minor league hockey games. The sample characteristics in the current study represented sport consumers of six professional sports leagues (NFL, NBA, MLB, NHL, AFL, and Soccer). Thus, the factors and respective items derived from the current study can be used in more general professional sport settings.

In the current study, a unidimensional construct of perceived value as represented by Perceived Value for the Cost was tested for its mediating effect (Kwon et al., 2007; McDougall & Levesque, 2000; Murray & Howat, 2002; Netemeyer et al., 2004). While acknowledging the importance of multidimensional aspects, previous studies have consistently found that utilitarian aspect such as Perceived Value for the Cost was the primary factor that was related to

consumption behavior (Kwon et al., 2007; Netemeyer et al., 2004). Although the EFA retained all five items measuring Perceived Value for the Cost in the current study, two items (the game experience was a good buy and the game experience was worth the money) could not be retained in the CFA due to extremely low indicator loadings. The three-item model showed good model fit. Various scholars have proposed multidimensional aspects of the perceived value model by arguing that consumers' decision making is a function of multiple perceived values (Sheth et al., 1991; Sweeney & Soutar, 2001). To some extent, these claims were empirically validated in previous studies (Gallarza & Saura, 2006; Lee et al., 2007; Petrick, 2002a; Sanchez et al., 2006). Thus, it is suggested that future research attention on conceptualizing the perceived value construct is a viable option by adopting multidimensional aspects.

The current study initially proposed a two-dimensional model of behavioral intentions represented by Repatronage Intentions and Recommend to Others. However, both EFA and CFA consistently yielded a one-factor model due to high interfactor correlation. The finding of a unidimensional factor had its merit and made practical sense when considering the fact that one positive intention in one behavioral domain usually leads to another positive intention in the same behavioral domain. Nonetheless, this finding was inconsistent with previous studies (Söderlund, 2006; Zeithaml et al., 2006), which suggested that the most frequently utilized behavioral intention constructs were Willingness to Recommend the Service to Others and Repurchase Intentions. Multidimensional aspects of behavioral intentions have been consistently suggested and would provide better practical implications. For instance, Söderlund (2006) found satisfaction influenced both Repurchase Intentions and Recommend to Others factors but with unequal strengths. This finding implied that mere selection of one intention construct over another may cause a misunderstanding about the role of satisfaction (antecedent) as a

determinant of intentions. Therefore, more careful conceptualization is required to distinguish the Repurchase Intentions factor from the Recommend to Others constructs in order to reduce high interfactor correlation in future studies. Furthermore, more behavioral intentions constructs such as Desire to Stay (Wakefield & Blodgett, 1996) or Intentions to Switch Product/Service (Eggert & Ulaga, 2002) need to be incorporated into the measurement in order to better understand the effects of antecedents (e.g., market demand and/or game support programs) on sport consumption behaviors.

Hypotheses Testing

Of paramount interest to the current study was to examine the structural relationships of market demand variables and game support programs to professional team sports attendance-related variables, while taking into consideration the mediating influence of Perceived Value for the Cost. To achieve this, a series of hypotheses testing were conducted by means of SEM. Consequently, it was found that Home Team, Opposing Team, Game Amenities, and Perceived Value for the Cost were positively related to Behavioral Intentions, whereas Game Promotion was negatively related to Behavioral Intentions. Additionally, Perceived Value for the Cost was found to be the only mediating role in the relationship between Venue Quality and Behavioral Intentions.

The finding that Home Team had a positive influence on Behavioral Intentions was consistent with previous studies (Noll, 1991; Schofield, 1983; Zhang et al., 1995, 1997a, 2003a, 2004a). Home Team factor was comprised of the following variables: win/loss record, league standing, and team reputation in the current study. Various scholars have stressed that winning is the ultimate goal for a professional sport team due to its enormous impact on the success of the sport organization (Milne & McDonald, 1999; Zhang et al., 2003a). However, constant winning seems impossible in professional sports. Equally important as winning is making home fans

psychologically connected with the home team. Fans with high identification with a team are not likely to reduce their game consumption levels even though the team may not be winning, as can be seen with the Chicago Cub's supportive fans despite their propensity for losing and Boston Red Sox fans prior to their World Series victory in 2004. This phenomenon has been empirically validated by various researchers (Wann & Branscombe, 1993; Zhang et al., 2004a). Regardless of winning and losing, professional sport team marketers should formulate strategies to increase fan identification with their team. Likewise, the finding that Opposing Team had a positive influence on Behavioral Intentions was consistent with findings from previous studies (Madrigal, 1995; Zhang et al., 1995, 2000). The Opposing Team factor was comprised of such variables as opposing team's overall performance, quality of opposing team, opposing team exciting play, opposing team reputation, and overall quality of opposing team players. Essentially, Home Team and Opposing Team make up the major elements of a game. Both of them were relevant and are important to the marketing of the games. The relative influences that Home Team and Opposing Team had on Behavioral Intentions implies that professional team sports fans tend to consider home team and opposing team separately as they make a decision regarding game attendance. This notion is also consistent with previous studies (Braunstein et al., 2005; Zhang et al., 1995). Thus, sport marketers should utilize marketing activities to promote the aspects of home team and opposing team separately. For instance, sport marketers should emphasize home team while focusing on such aspects as current league standing and home team reputation, but should highlight opposing team, not only on their current performance and reputation, but also the presence of star players.

This study found that Game Promotion had a negative influence on Behavioral Intentions, which was in contrast to the findings of previous studies (Zhang et al., 1995, 2003a).

The Game Promotion factor was comprised of three variables: advertising, direct mail and notification, and sales promotions. Although the findings were different from previous studies, it might make practical sense that when a consumer focused on Game Promotion variables instead of other major game related issues such as home and opposing teams, he/she would be less likely to attend future games. It is a testimony that a true fan focuses on elements directly related to team performances on the court. Additionally, it is necessary to point out that the Game Promotion factor was the weakest predictor of sport consumption behaviors in Zhang et al.'s (2003a) general market demand study. In Zhang et al.'s (1995) study, Game Promotion was represented by a larger number of variables, including good seats, giveaway/prize, and ticket discount, which were found to be all positively related to sport consumption (Zhang et al., 2000, 2003a). The current study initially consisted of these variables, but they were subsequently eliminated in the EFA and CFA procedures. In addition, Game Promotion factor was not found to be a significant predictor of sport consumption in some of the previous studies (Zhang et al., 1997a, 2003a). Furthermore, it was pointed out that an excessive persuasion attempt employed by direct mail, notification, and/or e-mail, which was not requested by a consumer, could create a negative reaction to the organization, as the consumer may feel an invasion of privacy due to unwanted solicitation (Grönroos, 2005). This phenomenon may occur more frequently in people with low team identification. Because the current study did not incorporate the effect of team identification into the measurement, this speculation could not be confirmed. Future studies should examine a moderating effect of team identification in the relationship between Game Promotion and Behavioral Intentions

Two factors, Economic Consideration and Schedule Convenience, were not found to be statistically significant predictors of Behavioral Intentions in the SEM. However, descriptive

statistics, the EFA, and the CFA indicated that these two factors were important factors to be considered by professional sport teams when formulating marketing strategies. The Economic Consideration factor was primarily comprised of ticket-related variables (personal ticket price, ticket affordability, and ticket discount), which were found to be contributing variables to game attendance and media consumption in previous studies (Zhang et al., 2003a). When a team is not playing well, team marketers should consider such strategies as ticket discounts or buy one get the second one at half off, along with well-planned in-game amenities so that fans can be satisfied with the game products and services. The Schedule Convenience factor was comprised of three variables in the current study (game time of the day, convenient game schedule, and day of the week). Previous studies found that the Schedule Convenience factor was an important predictor of game attendance (Hill et al., 1982; Zhang, 1998b). Hill et al. (1982) found that weekend games and season ending games were positively related to MLB game attendance. Zhang (1998b) found that spectators of minor league hockey preferred an evening time (7:00 pm) for weekday and Saturday games, and an afternoon time (4:00 pm) for Sunday games. Although team marketers cannot have complete control over the game schedule, they should make efforts to make the game schedule as convenient as possible.

The finding that Game Amenities had a positive influence on Behavioral Intentions was consistent with the findings of previous studies (Zhang et al., 1998a, 2004c, 2005b). Zhang et al. (2005a) found that various in-game amenities and music were important predictors of game consumption for NBA season-ticket holders. The Game Amenities factor was comprised of six variables (during game shows/entertainments, post-game shows/entertainments, pre-game shows/entertainments, intermission/half-game entertainments, dance cheerleading activities, and concourse entertainment activities). Based on the findings, professional team sport marketers

should pay attention to in-game amenities in order to enhance entertainment value for spectators. Today's professional sport events are considered to be not only competitive sports but also family-oriented entertainment events, which can be enjoyed by people of various backgrounds. For instance, the Pittsburgh Pirates, a team considered by most people to be not very competitive, was ranked #1 in offering in-game promotional activities, including fireworks nights and bobble head giveaways (Sutton, 2008). Getting selected fans involved in the half-time activities for prizes can also positively promote the game entertainment value. Additionally, any concourse fun activities by a team mascot or staff members would add entertainment value to fans who go to the restroom or concession area. Offering unique and enjoyable activities may keep spectators stay longer at the game even if the team is not playing well. In NBA and NFL games, cheerleaders play an important role in enhancing entertainment value. Some cheerleading teams such as the Dallas Cowboy's and Laker Girls have been well branded and have their own fan bases.

In this study, Ticket Service and Venue Quality factors were not found to be significant predictors of Behavioral Intentions. However, when formulating marketing strategies, these two areas should be considered as important factors as they were found to be significant predictors of sport consumption in previous studies (Zhang et al., 1998a; 2005b). In terms of ticket service, the variables representing the factor (phone order, will call, and ticket exchange programs) were found to be more relevant to season-ticket holders (Zhang et al., 2000). One possible explanation for why the Ticket Service factor was not found to be related to Behavioral Intentions was due in part to the characteristics of the respondents in this study, who were recruited from various areas (sports bars, malls, and/or grocery stores). To a certain extent, the respondents may have different types of tickets, which imply that they may have received different services. As a result,

the different service experiences may have cancelled out other service experiences received by people who had variant ticket types. This issue deserves future study.

In terms of Venue Quality, the variables representing the factor were staff courtesy, restroom availability, arena/stadium cleanliness, ease of entrance, security, and parking. These were found to be important predictors of sport consumption in previous studies (Wakefield & Blodgett, 1996; Wakefield & Sloan, 1995; Zhang et al., 2004c). For instance, Wakefield and Sloan (1995) found that parking and cleanliness were significant predictors of the desire to stay longer at college football games. Zhang et al. (2004c) also found that the Stadium Service factor had a positive influence on NBA game attendance. Wakefield et al. (1996) found that Stadium Accessibility had a positive relationship with emotional reaction of college football game spectators. Based on these previous findings, Venue Quality issues deserve to be considered when formulating marketing strategies for professional team sports.

The current study found that Perceived Value for the Cost had a positive influence on Behavioral Intentions. This finding is consistent with the findings of previous studies (Cronin et al., 1997; Oh, 1999; Zeithaml, 1988). The current study utilized a unidimensional factor of perceived value (i.e., Perceived Value for the Cost), which was related to judging game experience in terms of money value. In previous studies, Perceived Value for the Cost was consistently found to be positively related to consumption behavior in the field of marketing (Bolton & Drew, 1991; Netemeyer et al., 2004). This same relationship was found in the context of sport consumption behaviors (Kwon et al., 2007; Murray & Howat, 2002). Thus, team marketers should pay particular attention to providing quality products/services in order to enhance perceived value for the money that spectators spend at the games, which in turn may positively influence Behavioral Intentions.

Of interest to this study was to examine the mediating role of Perceived Value for the Cost in the relationship of market demand and game support to Behavioral Intentions. It was found that Perceived Value for the Cost mediated the relationship between Venue Quality and Behavioral Intentions ($\beta = .083, p < .05$). This finding is unique in that there was no direct effect of Venue Quality on Behavioral Intentions. However, a significantly indirect effect occurred when Perceived Value for the Cost was incorporated into the equation. This result indicates that Venue Quality could be a significant predictor of Behavioral Intentions only through Perceived Value for the Cost. This is consistent with previous studies (Kwon et al., 2007; Murray & Howat, 2002), which found the mediating role of perceived value (Perceived Value for the Cost) on the relationships of team identification (Kwon et al.) and service quality (Murray & Howat) to Behavioral Intentions. At times, human consumption behaviors are complex and can hardly be explained by one-way direct relationships (Ajzen, 2005; Baggozi et al., 1999). Thus, it has been suggested to identify mediating and moderating effects that may influence the direct relationship in order to better understand the complexity of human consumption behaviors. Essentially, studying the perceived value construct as either a mediating or moderating variable in the relationships among market demand, game support programs, and sport consumption behaviors was worth the effort.

According to Mullin et al. (2007), there are six general characteristics associated with the core product in spectator sport event (i.e., the game itself), which can separate the core product of spectator sport event from the general business products. These are: unpredictable, intangible, perishable, variable, inseparable, and uncontrollability (Mullin et al., 2007). Due to these special natures, sport consumers may not be well conscious about intangible delivery of services received such as market demand factors. Instead, sport consumers tend to be more judgmental

about tangible products such as parking, cleanliness of venue and restroom, and ease of entrance that they have tangible experience, leading to the direct connection with perceived value for the cost, which in turn influences positive consumption behavior. Therefore, team marketers should be more cognizant to the functional service quality (i.e., tangible aspects of service) as they formulate marketing and service strategies so as to enhance the consumption level of spectators.

Essentially, findings of this study displayed promise of explanation power of perceived value to sport consumption behaviors. This study chose to focus on the most salient aspect of perceived value, Perceived Value for the Cost. Considering that multidimensional aspects of perceived value have been suggested by a number of researchers (Petrick, 2002a; Sheth et al., 1991; Sweeney & Soutar, 2001), future studies need to look into the variability of this suggestion.

In the current study, several theoretical frameworks have been fully or partially incorporated, including the Theory of Reasoned Action (Fishbein & Ajzen, 1975), the Appraisal-Emotional Response-Coping framework (Bagozzi, 1992), and the Nordic Model (Grönroos, 1984). These frameworks suggest that initial positive evaluation of product/service would directly or indirectly lead to positive consumer behavior (e.g., game attendance). The findings of the current study confirmed the suggested theoretical frameworks in the context of professional team sports. Cognitive-based constructs (i.e., market demand, game support, and perceived value for the cost) were found to exert conative consumption, which indicates that the cognitive-based constructs used in the current study are indeed superordinate decision criteria for professional sport consumers. Therefore, sport marketers in professional team sports need to consider how to best present this information, in which consumers are likely to use in their decision making process.

Additional Suggestions

Suggestions for future studies have been made through the discussions about the research findings. A few points need to be emphasized here. In the current study, the initially proposed Love of Professional Sport factor was not included in the SEM because this factor did not exhibit acceptable measurement properties in the CFA. However, the factor was characterized by such attributes as closeness of competition, duration of game, and/or high level of skills, which appear to be essential, relevant, and important to consumption of professional team sports. Thus, more measurement studies on this factor are necessary in future studies.

The current study failed to show discriminant validity for Arena/Stadium Service and Arena/Stadium Accessibility factors. However, the two factors seem theoretical distinct as they were found to be separate factors in previous studies (Zhang et al., 1998a; 2005b). Thus, future studies are necessary to examine the factor structure of the two factors. The same procedure can be suggested for the Behavioral Intentions factor that was initially represented by two factors, Repatronage Intentions and Recommend to Others in the current study. Future studies should also examine other mediating and moderating variables that may influence the relationships among market demand, game support programs, and behavioral intentions. These may include, but are not limited to, team identification, involvement, fan motivation, and socio-demographic variables.

In the current study, Bagozzi's (1992) Appraisal-Emotional Response-Coping framework has been partially utilized. That is, only a direct relationship between Appraisal (positive attitude) and Coping (behavioral intentions) has been confirmed. However, the model can be mediated by the emotional response derived from the initial appraisal (Bagozzi, 1992), which was not examined by the current study. Therefore, future studies should examine affective constructs in the equation of cognition (i.e., market demand and game support programs) to

conation (behavioral intentions) to better understand sport consumer behaviors related to professional team sports.

In terms of sample size, only half of the entire data ($n = 222$) was used for CFA and SEM. Although Wetson and Gore (2006) suggested that a minimum sample size of 200 was adequate for SEM, the small sample size might have negatively influenced model fit for the structural model (i.e., CFI) in the current study (Cheung & Rensvold, 2002). According to MacCallum, Ronznowski, and Necowitz (1992), any model respecification should have an additional independent sample for cross-validation for the respecified model in order to avoid capitalizing on chances of variation. Although, measurement and structural models in the current study displayed good psychometric properties, more attempts to validate factor structures and causal relationships are recommended.

In the current study, no effort was made to examine if differences exist between die-hard and fair-weather fans in terms of the structural relationships among market demand, game support, perceived value, and consumption intentions. As a matter of fact, spectators can at least be categorized as die-hard fans and fair-weather fans according to their consumption levels and socio-motivations (Wann & Branscombe, 1990). Die-hard fans generally are of higher team identification, involvement, and consumption levels than fair-weather fans; and are likely to support a team when the team does not performs well (Heere & James, 2007; Trail, Fink, & Anderson, 2003). Perhaps, die-hard fans pay more attention to core product attributes (e.g., win/loss, level of performance, and/or the presence of star players); whereas, fair-weather fans pay more attention to peripheral attributes (e.g., venue, promotion, and/or entertainment). These speculations need further examination by assessing invariance issues with respect to the consumption level of spectators. When doing this, a number of socio-psychological variables,

such as team identification and consumer involvement level, may be incorporated into the study. Invariance analyses are also needed to examine the structural relationships with respect to different professional sport leagues. Data in this study were collected through a community intervention approach; thus, research participants were those who attended professional sport events somewhat in the past. Due to the decay of memory, some of the respondents might not be able to provide their responses with specificity. Hence, future studies should also examine the invariance issues between on-site and recall settings. Finally, this study was delimited to variables directly related to professional teams and their management (i.e., market demand and game support programs). According to Mullin et al. (2007) and Zhang et al. (1997), there are many marketing environment variables (e.g., substitute forms of entertainments, availability of recreational activities, economics, and income) that may simultaneously interact with these market demand and game support programs. Future studies should take into consideration these environmental variables and their interactions with market demand, game support programs, and perceived value variables and how they function together to influence spectator consumption behaviors.

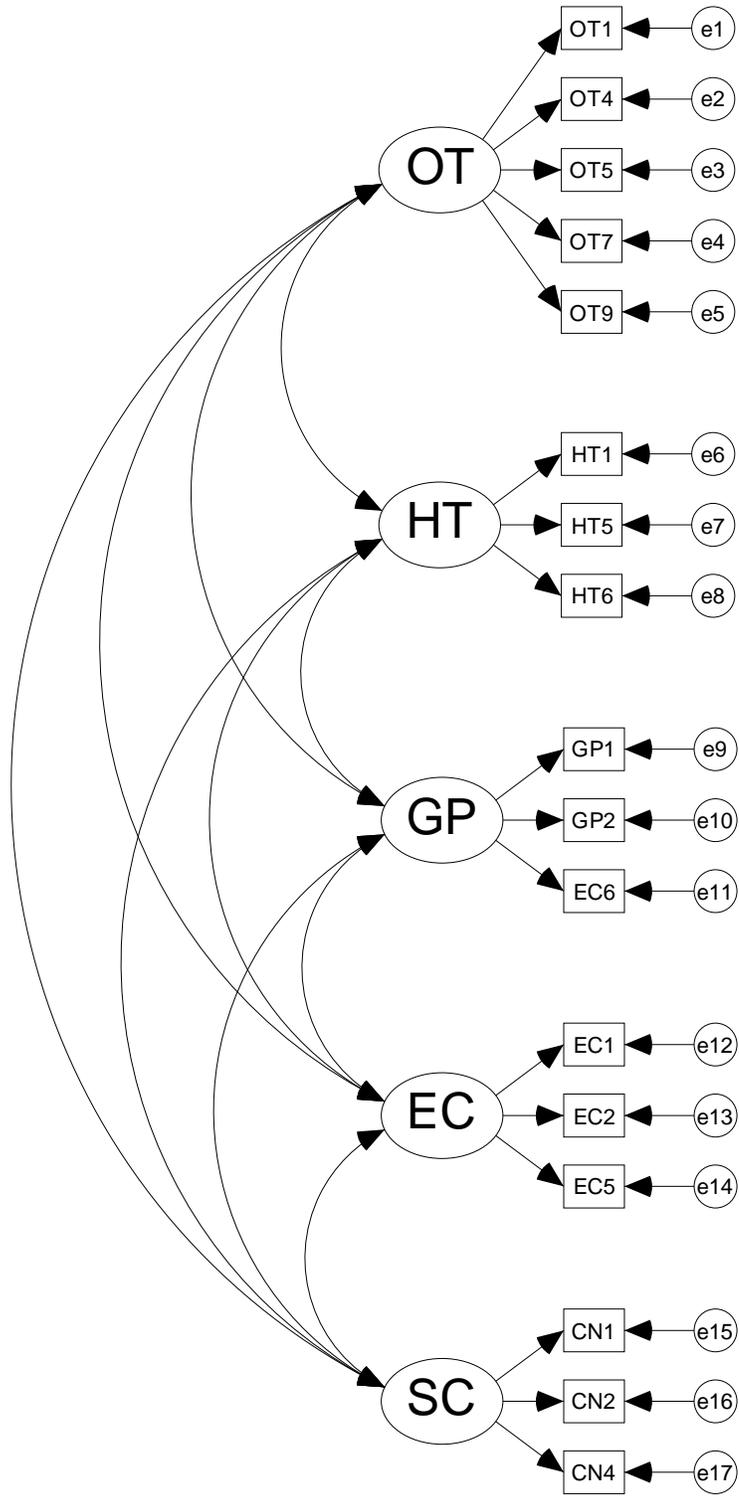


Figure 4-1. First-order confirmatory factor analysis for market demand

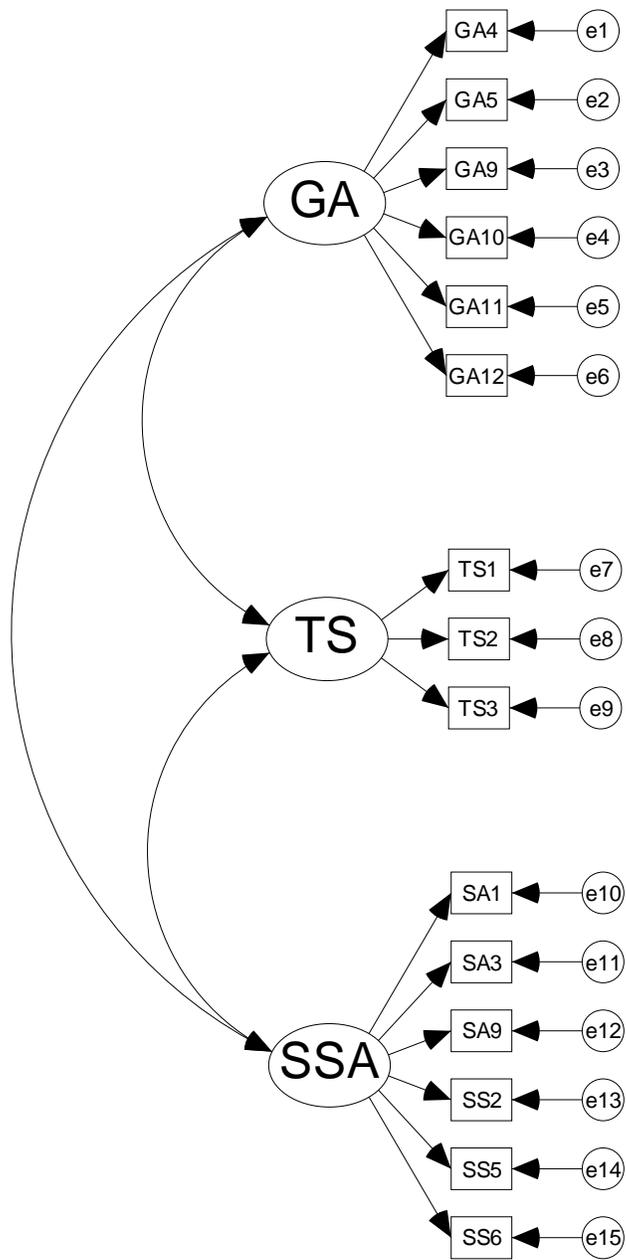


Figure 4-2. First-order confirmatory factor analysis for game support programs

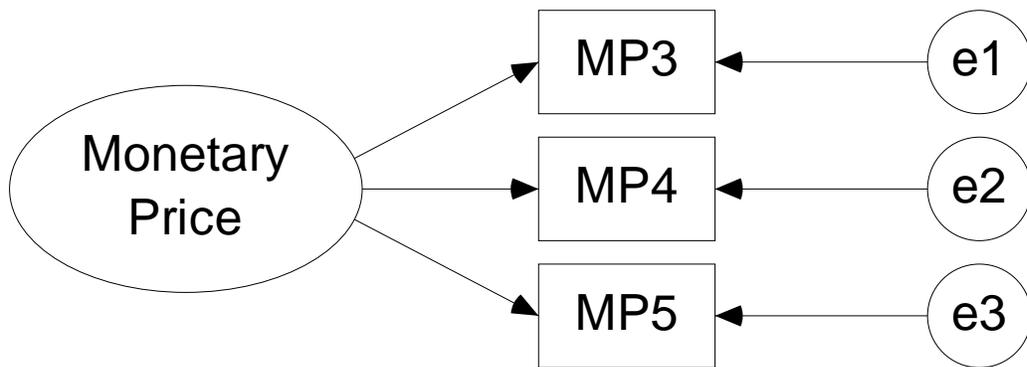


Figure 4-3. First-order confirmatory factor analysis for perceived value for the cost

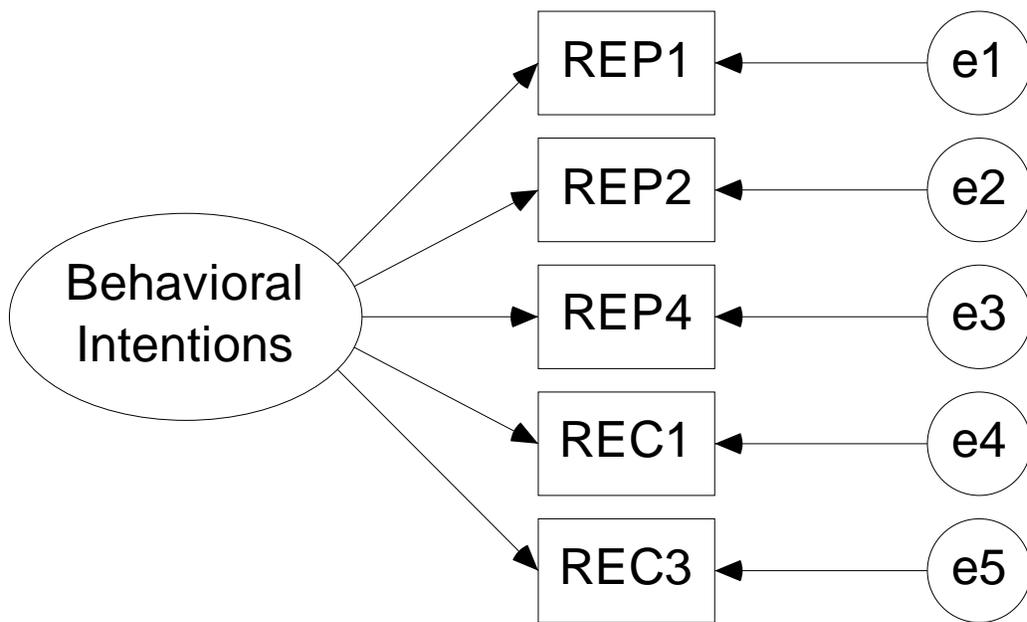


Figure 4-4. First-Order confirmatory factor analysis for behavioral intentions

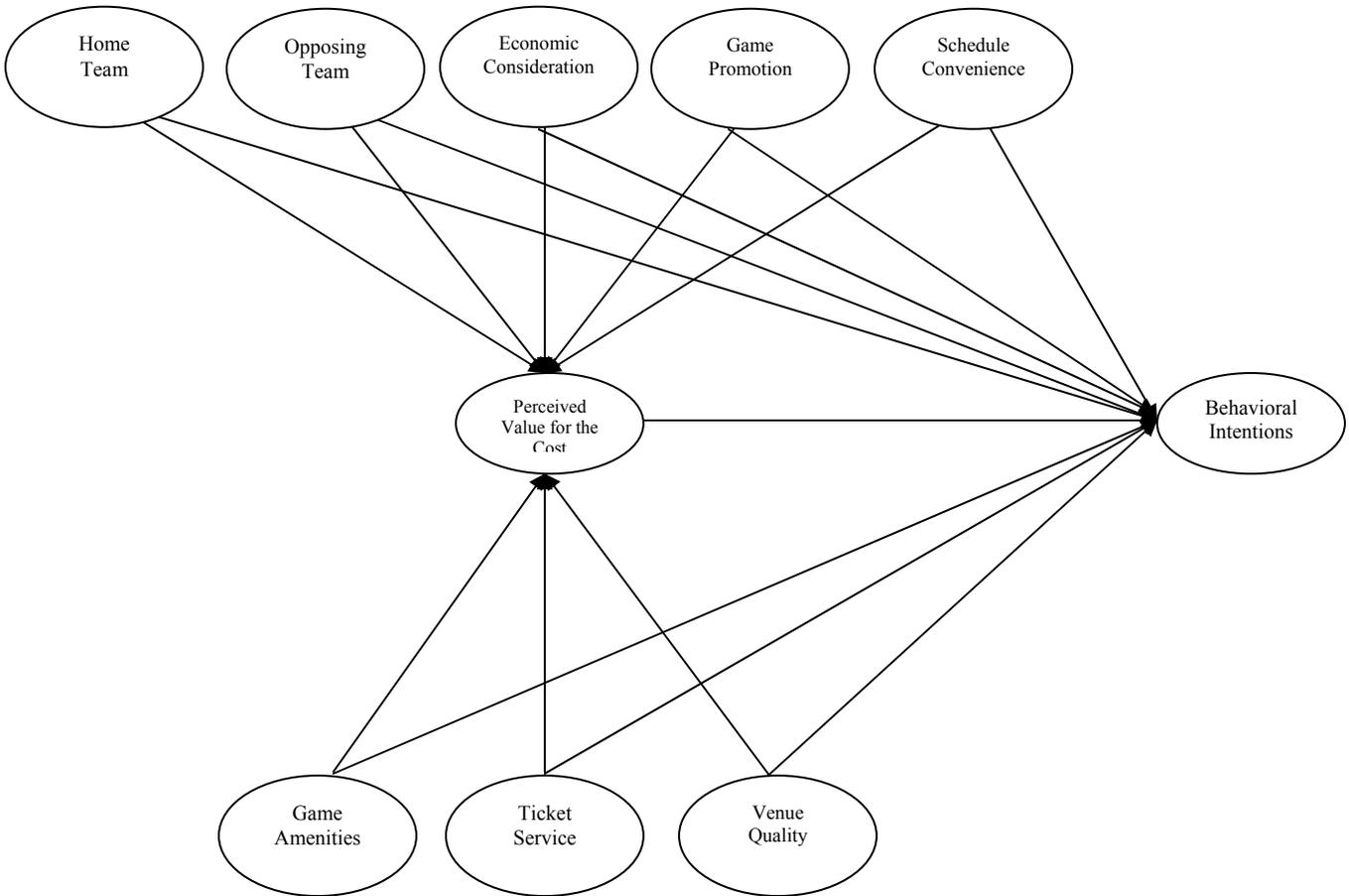
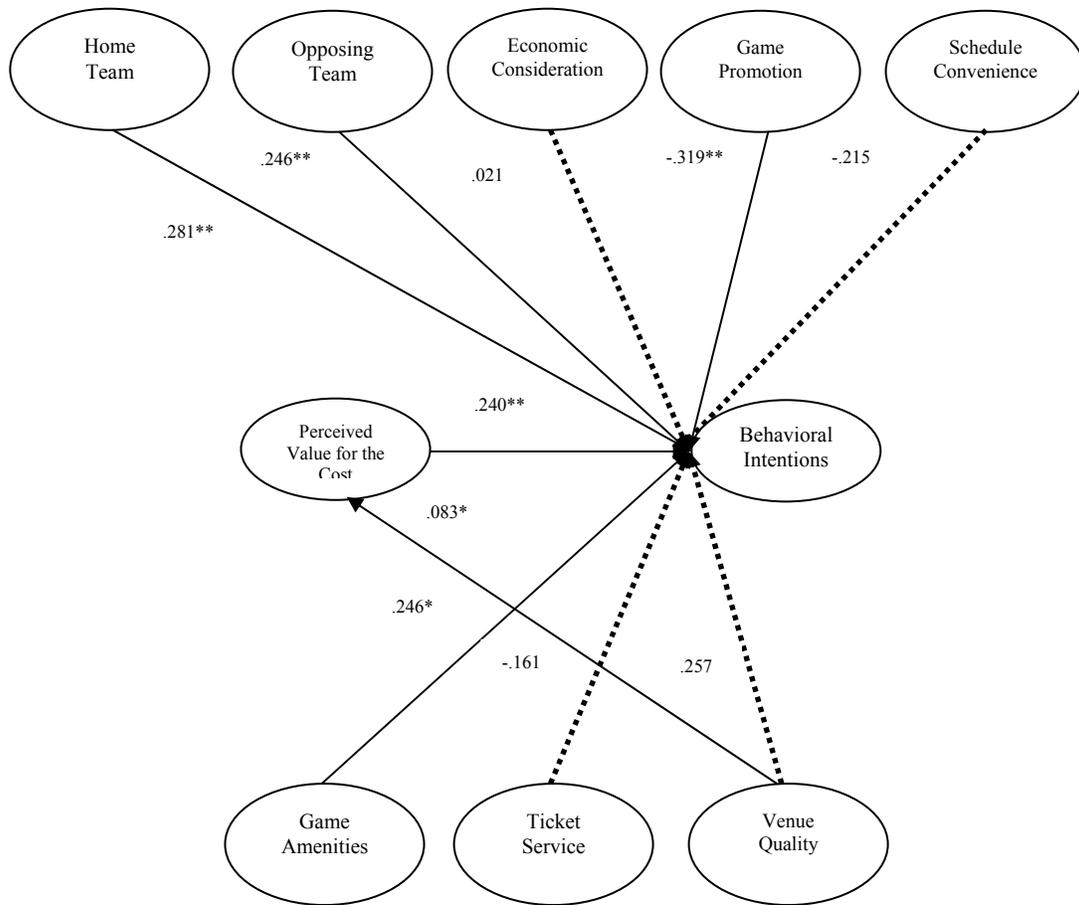


Figure 4-5. Tested structural model



Note. Dashed lines represent non-significant paths
 ** Path significant at the .01 level
 * Path significant at the .05 level

Figure 4-6. Tested structural model

Table 4-1. Frequency distributions for the sociodemographic variables ($N = 453$)

Variables	Category	Frequency (%) ($N = 453$)	Cumulative %
Gender	Male	274 (60.5)	60.5
	Female	179 (39.5)	100.0
Age	18-22	41 (9.0)	9.0
	23-30	175 (38.6)	47.7
	31-40	151 (33.3)	81.0
	41-50	58 (12.8)	93.8
	51-65	28 (6.2)	100.0
Number of People in Household	1	90 (19.9)	19.9
	2	112 (24.7)	44.6
	3-4	179 (39.5)	84.1
	5-6	62 (13.7)	97.8
	7-8	7 (1.5)	99.3
	9 or more	3 (0.7)	100.0
Household Income	Below \$20,000	23 (5.1)	5.1
	\$20,000-39,999	79 (17.4)	22.5
	\$40,000-59,999	128 (28.3)	50.8
	\$60,000-79,999	81 (17.9)	68.7
	\$80,000-99,999	56 (12.4)	81.0
	\$100,000-149,999	42 (9.3)	90.3
	\$150,000-199,999	27 (6.0)	96.2
	Above \$200,000	17 (3.8)	100.0
Marital Status	Single	241 (53.2)	53.2
	Married	195 (43.0)	96.2
	Divorced	17 (3.8)	100.0
Education	In School Now	1 (0.2)	0.2
	High School Graduate	47 (10.4)	10.6
	In College Now	45 (9.9)	20.5
	College Graduate	265 (58.5)	79.0
	Advanced Degree	95 (21.0)	100.0
Ethnicity	Caucasian	259 (57.2)	57.2
	African American	61 (13.5)	70.6
	Hispanic	87 (19.2)	89.8
	Asian/Pacific Islander	40 (8.8)	98.7
	American Indian	2 (0.4)	99.1
	Interracial	2 (0.4)	99.6
	Other	2 (0.4)	100.0

Table 4-1. Continued

Occupation	Management	79 (17.4)	17.4
	Technical	28 (6.2)	23.6
	Professional	128 (28.3)	51.9
	Sales	60 (13.2)	65.1
	Clerical	12 (2.6)	67.8
	Education	111 (24.5)	92.3
	Skilled Worker	30 (6.6)	98.9
	Non-Skilled Worker	3 (0.7)	99.6
	Other	2 (0.4)	100.0
	Attended Game	AFL	15 (3.3)
MLB		99 (21.9)	25.2
NBA		117 (25.8)	51.0
NFL		203 (44.8)	95.8
NHL		18 (4.0)	99.8
SOCCER		1 (0.2)	100.0

Table 4-2. Descriptive statistics for the market demand variables ($N = 453$)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. Home team win/loss record (HT1)	3.5938	1.22408	-.691	-.485
2. Home team star player(s) (HT2)	3.9294	1.18782	-1.001	.047
3. Home team record breaking performance (HT3)	3.2723	1.37517	-.280	-1.133
4. Overall quality of home team players (HT4)	4.0243	.93451	-.947	.953
5. Home team reputation (HT5)	4.1634	1.03470	-1.234	.908
6. Home team league standing (HT6)	3.8274	1.13915	-.893	.144
7. Home team history and tradition (HT7)	4.0000	1.11506	-.962	.023
8. Home team exciting play (HT8)	4.0067	.97873	-1.080	1.029
9. Support the home team (HT9)	4.1637	1.02086	-1.199	.850
10. High level of skills (HT10)	3.7704	1.24457	-.934	-.074
11. Opposing team's overall performance (OT1)	3.2318	1.15278	-.444	-.590
12. Opposing team star player(s) (OT2)	3.2274	1.27569	-.471	-.851
13. Opposing team history and tradition (OT3)	3.4194	1.07907	-.459	-.275
14. Opposing team reputation (OT4)	3.2500	1.09580	-.326	-.472
15. Overall quality of opposing team players (OT5)	3.3488	1.14530	-.517	-.455
16. Opposing team league standing (OT6)	3.2434	1.15906	-.468	-.526
17. Quality of opposing team (OT7)	3.4658	1.05880	-.634	-.188
18. Opposing team as a rivalry (OT8)	3.6927	1.14210	-.718	-.124
19. Opposing team exciting play (OT9)	3.1239	1.22028	-.349	-.833
20. Player charisma of opposing team (OT10)	3.1969	1.22427	-.461	-.760
21. Played that sport(s) (LS1)	2.8940	1.47014	.029	-1.334
22. Closeness of competition (LS2)	3.3920	1.08592	-.538	-.296
23. Popularity of professional team sport (LS3)	3.8234	1.20826	-.844	-.175
24. Duration of the game (LS4)	2.8702	1.29197	-.047	-1.145
25. High level of skills (LS5)	3.8825	1.03348	-.898	.374
26. Best players in a sport (LS6)	3.7870	1.23264	-.797	-.415
27. Speed of game (LS7)	3.2062	1.29654	-.382	-.931
28. Athleticism of professional team sport (LS8)	3.6372	1.08947	-.520	-.401
29. High level of competitiveness (LS9)	3.9400	1.05111	-.901	.251
30. Love professional team sport(s) (LS10)	4.2235	.94592	-1.137	.631
31. Personal ticket price (EC1)	3.1715	1.26718	-.175	-.943
32. Ticket affordability (EC2)	3.3177	1.21467	-.384	-.609
33. Good seats (EC3)	3.6659	1.14562	-.613	-.416
34. Group ticket cost (EC4)	2.6705	1.30453	.103	-1.188
35. Ticket discount (EC5)	3.1723	1.36950	-.268	-1.093
36. Sales Promotions (EC6)	2.9219	1.29863	-.146	-1.169
37. Advertising (GP1)	2.8742	1.19533	.002	-.907
38. Direct mail & notification (GP2)	2.5044	1.31069	.239	-1.230
39. Publicity (GP3)	3.2208	1.18052	-.305	-.783
40. Web information (GP4)	2.4224	1.19629	.379	-.887
41. Game time of the day (SC1)	3.6637	1.04848	-.982	.720

Table 4-2 Continued

42. Convenient game schedule (SC2)	3.7533	.93319	-.818	.861
43. Weather condition (SC3)	3.3518	1.32460	-.426	-.893
44. Day of the week (SC4)	3.6592	1.01558	-.763	.261
45. Travel distance (SC5)	3.1499	1.19267	-.112	-.727
46. Location of venue (SC6)	3.5919	1.24954	-.658	-.486

Note. HT = home team; OT = opposing team; LS = love of professional sport; EC = economic consideration; GP = game promotion; SC = schedule convenience.

Table 4-3. Descriptive statistics for the game support programs variables ($N = 453$)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. Phone order service (TS1)	2.8381	1.05699	-.002	-.211
2. Will call service (TS2)	3.0703	1.01743	.019	-.188
3. Ticket exchange program (TS3)	3.0740	1.08765	-.245	-.217
4. Ticket agencies (TS4)	2.9046	1.05939	-.205	-.355
5. Game calendar and schedule (TS5)	3.9508	.81864	-.467	-.140
6. Ticket personnel friendliness(TS6)	3.7562	.92849	-.457	-.139
7. Convenience of ticket sale locations (TS7)	3.5258	.98321	-.486	.201
8. Web (on-line) order procedures (TS8)	2.9748	1.00301	-.094	-.191
9. Mail order (TS9)	2.5324	1.12279	.111	-.715
10. Efficiency of ticket office (TS10)	3.5442	.96554	-.185	-.544
11. Music selection (GA1)	3.6777	.91804	-.283	-.259
12. Public address system (GA2)	3.7020	.98289	-.505	-.266
13. Replay screens (GA3)	3.5366	1.12114	-.499	-.452
14. During game shows/entertainments (GA4)	3.5982	.93704	-.384	-.330
15. Post-game shows/entertainments (GA5)	3.2993	1.14694	-.314	-.591
16. Give away/prize(GA6)	3.2345	1.10624	-.179	-.660
17. Music volume (GA7)	3.8407	.91028	-.687	.429
18. Scoreboard information (GA8)	3.9779	.86446	-.639	.242
19. Pre-game shows/entertainments (GA9)	3.4568	.96155	-.484	-.096
20. Intermission/half-game entertainments (GA10)	3.4181	.96392	-.384	-.112
21. Dance/cheerleading activities (GA11)	3.5565	1.00805	-.507	-.245
22. Concourse entertainment activities (GA12)	3.3166	.88871	-.089	-.039
23. Food and drink quality (SS1)	3.5022	.91267	-.252	.137
24. Arena/Stadium cleanliness (SS2)	3.7345	.91707	-.434	-.114
25. Restroom cleanliness (SS3)	3.2301	.98672	-.211	-.497
26. Food and drink price (SS4)	3.0310	1.20615	-.174	-.898
27. Restroom availability (SS5)	3.6049	.89772	-.372	-.124
28. Staff courtesy (SS6)	3.7439	.88285	-.251	-.474
29. Parking (SA1)	2.9467	1.18688	.056	-.891
30. Newness of arena/stadium (SA2)	3.5398	1.02435	-.486	-.075
31. Security (SA3)	3.7450	.88207	-.448	.019
32. Ticket takers (SA4)	3.6991	.90851	-.489	-.028
33. Traffic/crowd control (SA5)	3.4204	1.08299	-.382	-.431
34. Public transportation (SA6)	3.1327	1.10767	-.271	-.388
35. Niceness of arena stadium (SA7)	3.8514	.89621	-.444	-.437
36. Ushers (SA8)	3.4614	.83689	-.014	-.246
37. Ease of entrance (SA9)	3.5762	1.01605	-.373	-.454
38. Seating directions (SA10)	3.7441	.88886	-.575	.331

Note. TS = ticket services; GA = game amenities; SS = stadium services; SA = stadium accessibility

Table 4-4. Descriptive statistics for the perceived value for the cost variables (N = 453)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. The game experience was a good buy (MP1)	4.2230	.80441	-1.015	1.192
2. The game experience was worth the money (MP2)	4.2362	.78949	-.743	-.003
3. The game experience was fairly priced (MP3)	3.9029	.97958	-.755	.227
4. The game experience was reasonably priced (MP4)	3.8609	.97563	-.580	-.134
5. The game experience was economical (MP5)	3.6093	1.12084	-.521	-.449

Note. MP = perceived value for the cost

Table 4-5. Descriptive statistics for the behavioral intentions variables ($N = 453$)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. I am likely to attend more games as soon as the sport is in season (REP1)	4.4004	.86028	-1.563	2.133
2. I am likely to re-attend game(s) next season (REP2)	4.4636	.78516	-1.518	2.129
3. I have a high likelihood of re-attending the game(s) next season (REP3)	4.3664	.83768	-1.523	2.539
4. I plan on attending more game(s) of this professional sport in the future (REP4)	4.5366	.70105	-1.466	1.868
5. The probability that I will re-attend this professional sport game is high (REP5)	4.5077	.79992	-1.718	2.633
6. I will recommend this professional sport game to other persons (REC1)	4.3642	.83468	-1.433	2.092
7. I am likely to recommend this professional sport game to my family (REC2)	4.3775	.83408	-1.606	2.994
8. I am likely to recommend this professional sport game to my friends (REC3)	4.3731	.76417	-1.255	1.751
9. I am likely to say positive things about this professional sport game to other people (REC4)	4.3355	.83215	-1.435	2.471
10. I will talk about this professional sport game with other people (REC5)	4.4238	.78230	-1.431	2.031

Note. REP = repurchase intentions; REC = recommend to others

Table 4-6. Factor pattern matrix for the market demand variables: alpha factoring with promax rotation using first half data ($n = 231$)

	F1	F2	F3	F4	F5	F6
<i>Opposing Team (9 items)</i>						
Quality of opposing team	.862	-.085	-.112	-.005	-.002	.118
Overall quality of opposing team players	.827	-.095	-.006	-.001	-.036	.118
Opposing team exciting play	.822	.065	.092	.141	-.108	-.154
Opposing team star player(s)	.818	-.167	.076	-.103	.056	.021
Opposing team reputation	.814	.074	-.187	-.001	.120	-.017
Player charisma of opposing team	.765	-.144	.237	-.097	-.026	.054
Opposing team league standing	.725	.141	.023	.138	-.106	-.093
Opposing team's overall performance	.717	.065	.025	.159	-.077	-.037
Opposing team history and tradition	.641	.243	-.161	-.360	.215	.000
<i>Home Team (6 items)</i>						
Home team win/loss record	-.153	.773	.103	-.049	.086	-.029
Home team league standing	.014	.738	.056	-.071	.019	-.019
Home team reputation	-.122	.722	-.042	.004	-.003	.137
Home team history and tradition	.078	.695	-.072	.005	-.182	.029
Overall quality of home team players	.085	.634	.062	.048	.031	.051
Home team exciting play	.083	.565	.040	.133	.022	-.077
<i>Game Promotion (5 items)</i>						
Advertising	-.007	.035	.902	-.131	.097	-.033
Sales Promotions	-.142	.007	.873	.087	-.018	.082
Direct mail & notification	.036	-.003	.817	-.129	-.011	-.012
Publicity	.204	.023	.494	.056	-.098	.230
Web information	.093	.122	.471	.106	.059	-.164
<i>Economic Consideration (4 items)</i>						
Ticket affordability	-.040	.014	-.081	.948	-.121	.060
Travel distance	.007	.074	.091	.709	-.067	-.037
Ticket discount	-.090	-.069	-.078	.630	.312	.028
Personal ticket price	.126	-.037	-.078	.590	.037	.176
<i>Love of Professional Sport (4 items)</i>						
Group ticket cost	-.181	.107	-.042	-.089	.651	.140
Speed of game	.087	.016	.027	.302	.569	-.182
Duration of the game	.105	-.081	.146	.213	.513	.039
Played that sport(s)	.120	-.120	.059	-.103	.509	.016
<i>Schedule Convenience (3 items)</i>						
Day of the week	.011	-.005	-.061	.075	-.005	.659
Convenient game schedule	.111	.167	-.041	.055	.063	.620
Game time of the day	-.024	-.008	.131	.054	.066	.616

Note. F1 = opposing team; F2 = home team; F3 = game promotion; F4 = economic consideration; F5 = love of professional sport; F6 = schedule convenience.

Table 4-7. Factor pattern matrix for the game support programs variables: alpha factoring with promax rotation using first half data ($n = 231$)

	F1	F2	F3	F4	F5
<i>Game Amenities (6 items)</i>					
Pre-game shows/entertainments	.856	.036	-.059	.031	-.083
Post-game shows/entertainments	.795	.080	-.149	-.136	-.017
Dance/cheerleading activities	.720	-.184	-.005	.072	.096
During game shows/entertainments	.668	-.036	.027	.248	-.015
Intermission/half-game entertainments	.627	.042	.105	.070	.159
Concourse entertainment activities	.600	.129	.205	-.066	-.088
<i>Arena/Stadium Services (5 items)</i>					
Arena/Stadium cleanliness	.034	.673	-.211	.084	.056
Restroom availability	-.140	.656	-.117	.205	.085
Restroom cleanliness	.005	.653	.018	-.086	.188
Parking	.163	.628	.031	-.222	.063
Ease of entrance	-.118	.444	.360	.246	-.252
<i>Ticket Service (3 items)</i>					
Ticket exchange program	.083	-.049	.769	-.098	-.058
Will call service	-.221	-.099	.756	.138	.116
Phone order service	.127	-.055	.635	-.136	.048
<i>Arena/Stadium Convenience (4 items)</i>					
Scoreboard information	-.001	-.058	-.108	.704	.125
Game calendar and schedule	-.039	.006	-.054	.598	.077
Security	.185	-.070	.111	.565	-.053
Staff courtesy	.096	.161	.075	.550	-.090
<i>Arena/Stadium Accessibility (3 items)</i>					
Public address system	.020	.025	.401	.078	.539
Traffic/crowd control	-.054	.183	.169	-.125	.535
Seating directions	.049	.074	-.197	.236	.525

Note. F1 = game amenities; F2 = arena/stadium services; F3 = ticket service; F4 = arena/stadium convenience; F5 = arena/stadium accessibility.

Table 4-8. model fit comparison between the six-factor model and five-factor model of market demand using second half data ($n = 222$)

Model	χ^2	df	χ^2/df	RMSEA	RMSEA CI	SRMR	CFI	ECVI
Six-Factor Model (31 items)	1340.89	419	3.20	.10	.094-.106	.077	.78	6.76
Five-Factor Model (17 items)	278.31	109	2.55	.084	.072-.096	.054	.92	1.66

CI = confidence interval

Table 4-9. Model fit comparison between the five-factor model, four-factor model, and three-factor model of game support programs using second half data ($n = 222$)

Model	χ^2	df	χ^2/df	RMSEA	RMSEA CI	SRMR	CFI	ECVI
Five-Factor Model (21 items)	482.84	179	2.70	.088	.078-.097	.077	.82	2.66
Four-Factor Model (15 items)	212.44	84	2.53	.083	.069-.097	.068	.89	1.29
Three-Factor Model (15 items)	219.04	87	2.52	.083	.069-.097	.070	.89	1.29

CI = confidence interval

Table 4-10. Model fit comparison between the five-item model and three-item model of perceived value for the cost using second half data (n = 222)

Model	χ^2	<i>df</i>	χ^2/df	RMSEA	RMSEA CI	SRMR	CFI	ECVI
Five-Item Model	138.39	5	27.68	.347	.299-.399	.172	.76	.72
Three-Item Model	2.79	1	2.79	.090	.000-.223	.001	.99	.06

CI = confidence interval

Table 4-11. Model fit comparison between the ten-item model and five-item model of behavioral intentions using second half data ($n = 222$)

Model	χ^2	<i>Df</i>	χ^2/df	RMSEA	RMSEA CI	SRMR	CFI	ECVI
Ten-Item Model	157.04	35	4.60	.126	.106-.146	.048	.92	.89
Five-Item Model	14.99	5	3.00	.095	.042-.152	.019	.99	.20

CI = confidence interval

Table 4-12. Overall model fit indices for the measurement model of hypothesized structural model using second half data ($n = 222$)

Model	χ^2	df	χ^2/df	RMSEA	RMSEA CI	SRMR	CFI	ECVI
Structural Model	1545.33	695	2.22	.70	.065-.074	.067	.86	7.15

CI = confidence interval

Table 4-13. Interfactor correlations from the confirmatory factor analysis of the market demand using second half data ($n = 222$)

	OT	HT	GP	EC	SC
OT	1.0				
HT	.308***	1.0			
GP	.464***	.501***	1.0		
EC	.308***	.200*	.193*	1.0	
SC	.444***	.460***	.461***	.511***	1.0

Note. OT = opposing team; HT = home team; GP = game promotion; EC = economic consideration; SC = schedule convenience.

*** Correlation significant at the .001 level

* Correlation significant at the .05 level

Table 4-14. Interfactor correlations from the confirmatory factor analysis of the game support programs using second half data ($n = 222$)

	GA	TS	VQ
GA	1.0		
TS	.634***	1.0	
VQ	.491***	.363***	1.0

Note. GA = game amenities; TS = ticket services; VQ = venue quality

*** Correlation significant at the .001 level

Table 4-15. Interfactor correlations, construct reliability, and average variance extracted from the confirmatory factor analysis of the hypothesized structural model using second half data ($n = 222$)

	OT	HT	GP	EC	SC	GA	TS	VQ	MP	BI
OT	.87(.57)									
HT	.263***	.75(.51)								
GP	.476***	.414***	.83(.63)							
EC	.321***	.064	.120	.76(.52)						
SC	.477***	.346***	.345***	.360***	.77(.53)					
GA	.167*	.228**	.480***	.020	.331***	.90(.60)				
TS	.364***	.031	.437***	.167*	.394***	.462***	.72(.47)			
VQ	.028	.200*	.073	-.020	.503***	.558***	.461***	.77(.36)		
MP	.001	.299***	.095	.045	.301***	.344***	.204*	.487***	.92(.81)	
BI	.061	.315***	-.069	-.014	.116	.278***	-.004	.367***	.406***	.92(.69)

Note1. OT = opposing team; HT = home team; GP = game promotion; EC = economic consideration; SC = schedule convenience; GA = game amenities; TS = ticket service; VQ = venue quality; MP = perceived value for the cost; BI = behavioral intentions.

Note2. Interfactor correlations are in lower triangle; construct reliabilities are in diagonal; and average variance extracted values are in parentheses.

*** Correlation significant at the .001 level

** Correlation significant at the .01 level

* Correlation significant at the .05 level

Table 4-16. Indicator loadings, critical ratios, cronbach's alpha, construct reliability, average variance extracted for the market demand using second half data ($n = 222$)

Variables	Indicator Loadings	Critical Ratios	Cronbach's Alpha	Construct Reliability	Average Variance Extracted
<i>Opposing Team (5 items)</i>			.91	.82	.64
Opposing team's overall performance	.90				
Opposing team reputation	.74	13.52			
Overall quality of opposing team players	.84	16.79			
Quality of opposing team	.83	16.43			
Opposing team exciting play	.75	13.91			
<i>Home Team (3 items)</i>			.81	.80	.58
Home team win/loss record	.92				
Home team reputation	.80	8.99			
Home team league standing	.82	11.56			
<i>Game Promotion (3 items)</i>			.88	.82	.61
Advertising	.94				
Direct mail & notification	.60	14.84			
Sales Promotions	.77	15.31			
<i>Economic Consideration (3 items)</i>			.83	.76	.52
Personal ticket price	.71				
Ticket affordability	.91	10.92			
Ticket discount	.77	10.41			
<i>Schedule Convenience (3 items)</i>			.80	.80	.57
Game time of the day	.81				
Convenient game schedule	.79	10.91			
Day of the week	.67	9.54			

Table 4-17. Indicator loadings, critical ratios, cronbach's alpha, construct reliability, average variance extracted for the game support programs using second half data ($n = 222$)

Variables	Indicator Loadings	Critical Ratios	Cronbach's Alpha	Construct Reliability	Average Variance Extracted
<i>Game Amenities (6 items)</i>					
			.85	.86	.52
During game shows/entertainments	.71				
Post-game shows/entertainments	.60	8.20			
Pre-game shows/entertainments	.78	10.54			
Intermission/half-game entertainments	.79	10.75			
Dance/cheerleading activities	.68	9.24			
Concourse entertainment activities	.70	9.60			
<i>Ticket Service (3 items)</i>					
			.74	.72	.47
Phone order service	.69				
Will call service	.65	7.54			
Ticket exchange program	.76	8.18			
<i>Venue Quality (6 items)</i>					
			.77	.80	.41
Staff courtesy	.70				
Restroom availability	.70	8.70			
Arena/Stadium cleanliness	.72	8.90			
Ease of entrance	.44	5.70			
Security	.61	7.76			
Parking	.52	6.69			

Table 4-18. Indicator loadings, critical ratios, cronbach's alpha, construct reliability, average variance extracted for the perceived value for the cost using second half data (n = 222)

Variables	Indicator Loadings	Critical Ratios	Cronbach's Alpha	Construct Reliability	Average Variance Extracted
<i>Perceived Value for the Cost (3 items)</i>			.90	.88	.71
The game experience was fairly priced	.90				
The game experience was reasonably priced	.91				
The game experience was economical	.79	16.117			

Table 4-19. Indicator loadings, critical ratios, cronbach's alpha, construct reliability, average variance extracted for the behavioral intentions using second half data ($n = 222$)

Variables	Indicator Loadings	Critical Ratios	Cronbach's Alpha	Construct Reliability	Average Variance Extracted
<i>Behavioral Intentions (5 items)</i>			.93	.95	.79
I am likely to attend more games as soon as the sport is in season	.86				
I am likely to re-attend game(s) next season	.89	17.89			
I plan on attending more game(s) of this professional sport in the future	.78	14.27			
I will recommend this professional sport game to other persons	.86	16.69			
I am likely to recommend this professional sport game to my friends	.85	16.25			

Table 4-20. Maximum likelihood standardized loadings (β), critical ratios (cr), standard errors (se), and t-values for the hypothesized structural model using second half data ($n = 222$)

Path Coefficients between Factors	β	CR	SE	t
Direct Effect				
Behavioral Intentions \leftarrow Home Team (S)	.281	3.277	.071	.231**
Behavioral Intentions \leftarrow Opposing Team (S)	.246	2.778	.073	.204**
Behavioral Intentions \leftarrow Economic Consideration (NS)	.021	.294	.061	.018
Behavioral Intentions \leftarrow Game Promotion (PS)	-.319	-2.896	.082	-.238**
Behavioral Intentions \leftarrow Schedule Convenience (NS)	-.215	-1.863	.127	-.237
Behavioral Intentions \leftarrow Game Amenities (S)	.246	2.453	.099	.243*
Behavioral Intentions \leftarrow Ticket Service (NS)	-.161	-1.484	.122	-.180
Behavioral Intentions \leftarrow Venue Quality (NS)	.257	1.779	.240	.426
Behavioral Intentions \leftarrow Perceived Value for the Cost (S)	.240	3.199	.073	.234**
Perceived Value for the Cost \leftarrow Home Team (S)	.237	2.758	.073	.200**
Perceived Value for the Cost \leftarrow Venue Quality (S)	.346	2.358	.250	.589**
<hr/>				
Path Coefficients between Factors	β			p
Indirect Effect				
Behavioral Intentions \leftarrow Perceived Value for the Cost \leftarrow Venue Quality (Game Support) (PS)	.083			.028
Behavioral Intentions \leftarrow Perceived Value for the Cost \leftarrow Home Team (Market Demand) (NS)	.057			.133

Note. S = significant; PS = partially significant; NS = not significant

** Correlation significant at the .01 level

* Correlation significant at the .05 level

APPENDIX
INFORMED CONSENT AND QUESTIONNAIRE

Dear Participants:

Purpose of Study: The purpose of this study is to examine the impact of market demand, game support programs on consumption levels of professional team sport spectators as mediated by perceived value.

What you will be asked to do in the study: The questionnaire consists of items that are designed to measure market demand, game support programs, perceived value, and attendance intentions. By using these items, we are attempting to develop a model that explains what influences sport spectators' re-attend intentions towards a professional team sport.

Time required, Risks and Benefits, & Compensation: The survey will take approximately 10 minutes to complete. There are no known risks and we do not anticipate that you will benefit directly by participating in this study. There is no compensation for participating in this study.

Confidentiality: Your identity will be kept confidential to the extent provided by law. Your responses will be anonymous and will only be used for the current research purposes. In addition, there will be no identifying markers that will link you to the questionnaire you complete, as the results will be reported as group results.

Voluntary participation: Your participation in this research is totally voluntary and there is no penalty for not participating.

Right to withdraw from the study: You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study: Dr. James Zhang (advisor), Dept. of Tourism, Recreation, & Sport Management, 186A Florida Gym, jamesz@hhp.ufl.edu_392-4042 x 1274

Whom to contact about your rights as a research participant in the study: UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433

Agreement: I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant: _____ Date: _____

Principal Investigator: _____ Date: _____

To contact: Kunwung Byon, Florida Gym 300. PO. BOX. 118208. Gainesville, FL, 32611-8208, Phone (392-4042 x1309), E-mail (kbyon@hhp.ufl.edu)

Marketing Survey Questionnaire for Professional Team Sports

PURPOSE: This survey is for a marketing study on professional team sports. The collected information will be solely used for research. Your identity will be kept confidential to the fullest extent provided by law, and your responses will be anonymous. There is no right or wrong answers. Your participation is voluntary, and your honest response is greatly appreciated. **THANK YOU!**

SCREEN QUESTIONS:

- | | | | |
|--|------------|-----------|--|
| 1. Have you attended one or more professional team sport events within the past 12 months? | Yes | No | |
| 2. If so, did you or your family pay for the game ticket? | Yes | No | |
| Please specify the game that you attended (| |) | |

- If you answered **No** to #1 or #2, you are finished with the survey. Thank you!
- If you answered **Yes** to both #1 and #2, please continue.

DECISION MAKING: Please rate the following variables that might have influenced your decision making to attend the most recent professional team sport event (1=Not at All to 5 = Very Much).

Home Team, Favorite Team, or Team A (1=Not at All to 5 = Very Much):			
1. Home team win/loss record	1 2 3 4 5	6. Home team league standing	1 2 3 4 5
2. Home team star player(s)	1 2 3 4 5	7. Home team history and tradition	1 2 3 4 5
3. Home team record breaking performance	1 2 3 4 5	8. Home team exciting play	1 2 3 4 5
4. Overall quality of home team players	1 2 3 4 5	9. Support the home team	1 2 3 4 5
5. Home team reputation	1 2 3 4 5	10. High level of skills	1 2 3 4 5
Opposing Team, Visiting Team, or Team B (1=Not at All to 5 = Very Much):			
1. Opposing team's overall performance	1 2 3 4 5	6. Opposing team league standing	1 2 3 4 5
2. Opposing team star player(s)	1 2 3 4 5	7. Quality of opposing team	1 2 3 4 5
3. Opposing team history and tradition	1 2 3 4 5	8. Opposing team as a rivalry	1 2 3 4 5
4. Opposing team reputation	1 2 3 4 5	9. Opposing team exciting play	1 2 3 4 5
5. Overall quality of opposing team players	1 2 3 4 5	10. Player charisma of opposing team	1 2 3 4 5
Love of Professional Team Sport (1=Not at All to 5 = Very Much):			
1. Played that sport(s)	1 2 3 4 5	6. Best players in a sport	1 2 3 4 5
2. Closeness of competition	1 2 3 4 5	7. Speed of game	1 2 3 4 5
3. Popularity of professional team sport	1 2 3 4 5	8. Athleticism of professional team sport	1 2 3 4 5
4. Duration of the game	1 2 3 4 5	9. High level of competitiveness	1 2 3 4 5
5. High level of performance	1 2 3 4 5	10. Love professional team sport(s)	1 2 3 4 5
Economic Consideration (1=Not at All to 5 = Very Much):			
1. Personal ticket price	1 2 3 4 5	4. Group ticket cost	1 2 3 4 5
2. Ticket affordability	1 2 3 4 5	5. Ticket discount	1 2 3 4 5
3. Good seats	1 2 3 4 5	6. Sales Promotions	1 2 3 4 5

Game Promotion (1=Not at All to 5 = Very Much):											
1. Advertising	1	2	3	4	5	3. Publicity	1	2	3	4	5
2. Direct mail & notification	1	2	3	4	5	4. Web information	1	2	3	4	5
Schedule Convenience (1=Not at All to 5 = Very Much):											
1. Game time of the day	1	2	3	4	5	4. Day of the week	1	2	3	4	5
2. Convenient game schedule	1	2	3	4	5	5. Travel distance	1	2	3	4	5
3. Weather condition	1	2	3	4	5	6. Location of venue	1	2	3	4	5

ATTENDANCE INTENTION: With respect to the professional team sport event that you most recently attended, please rate the following statements that assess your intentions for future attendance at the professional team sport events (1 = Strongly Disagree to 5 = Strongly Agree).

Re-patronage Intentions					
1. I am likely to attend more games as soon as the sport is in season	1	2	3	4	5
2. I am likely to re-attend game(s) next season	1	2	3	4	5
3. I have a high likelihood of re-attending the game(s) next season	1	2	3	4	5
4. I plan on attending more game(s) of this professional sport in the future	1	2	3	4	5
5. The probability that I will re-attend this professional sport game is high	1	2	3	4	5
Recommendation to Others					
1. I will recommend this professional sport game to other persons	1	2	3	4	5
2. I am likely to recommend this professional sport game to my family	1	2	3	4	5
3. I am likely to recommend this professional sport game to my friends	1	2	3	4	5
4. I am likely to say positive things about this professional sport game to other people	1	2	3	4	5
5. I will talk about this professional sport game with other people	1	2	3	4	5

SERVICE QUALITY: With respect to the professional team sport event that you most recently attended, please rate the following statements that assess your perceptions of game-operation related activities during your attendance (1= Very Unsatisfied to 5 = Very Satisfied).

Ticket Service (1= Very Unsatisfied to 5 = Very Satisfied)											
1. Phone order service	1	2	3	4	5	6. Ticket personnel friendliness	1	2	3	4	5
2. Will call service	1	2	3	4	5	7. Convenience of ticket sale locations	1	2	3	4	5
3. Ticket exchange program	1	2	3	4	5	8. Web (on-line) order procedures	1	2	3	4	5
4. Ticket agencies	1	2	3	4	5	9. Mail order	1	2	3	4	5
5. Game calendar and schedule	1	2	3	4	5	10. Efficiency of ticket office	1	2	3	4	5
Game Amenities (1= Very Unsatisfied to 5 = Very Satisfied)											
1. Music selection	1	2	3	4	5	7. Music volume	1	2	3	4	5
2. Public address system	1	2	3	4	5	8. Scoreboard information	1	2	3	4	5
3. Replay screens	1	2	3	4	5	9. Pre-game shows/entertainments	1	2	3	4	5
4. During game shows/entertainments	1	2	3	4	5	10. Intermission/half-game entertainments	1	2	3	4	5
5. Post-game shows/entertainments	1	2	3	4	5	11. Dance/cheerleading activities	1	2	3	4	5
6. Give away/prize	1	2	3	4	5	12. Concourse entertainment activities	1	2	3	4	5

<i>Arena/Stadium Services (1= Very Unsatisfied to 5 = Very Satisfied)</i>											
1. Food and drink quality	1	2	3	4	5	4. Food and drink price	1	2	3	4	5
2. Arena/Stadium cleanliness	1	2	3	4	5	5. Restroom availability	1	2	3	4	5
3. Restroom cleanliness	1	2	3	4	5	6. Staff courtesy	1	2	3	4	5
<i>Arena/Stadium Accessibility (1= Very Unsatisfied to 5 = Very Satisfied)</i>											
1. Parking	1	2	3	4	5	6. Public transportation	1	2	3	4	5
2. Newness of arena/stadium	1	2	3	4	5	7. Niceness of arena stadium	1	2	3	4	5
3. Security	1	2	3	4	5	8. Ushers	1	2	3	4	5
4. Ticket takers	1	2	3	4	5	9. Ease of entrance	1	2	3	4	5
5. Traffic/crowd control	1	2	3	4	5	10. Seating directions	1	2	3	4	5

COST AND BENEFIT: With respect to the professional team sport event that you most recently attended, please rate the following statements that assess your overall perceptions of game experience during your attendance (*1= Definitely False to 5 = Definitely True*).

<i>Perceived Value of Game Experience (1= Definitely False to 5 = Definitely True)</i>					
1. The game experience was a good buy	1	2	3	4	5
2. The game experience was worth the money	1	2	3	4	5
3. The game experience was fairly priced	1	2	3	4	5
4. The game experience was reasonably priced	1	2	3	4	5
5. The game experience was economical	1	2	3	4	5

DEMOGRAPHICS: Please provide the following information by circling an answer or filling a blank.

1. Gender: a. male b. female

2. Age: a. 10 years or younger b. 11-17 years old c. 18-22 years old d. 23-30 years old
 e. 31-40 years old f. 41-50 years old g. 51-65 years old h. 66 years or older

3. Number of people in your household: a. 1 b. 2 c. 3-4 d. 5-6 e. 7-8 f. 9 or more

4. Household income: a. below \$ 20,000 b. \$20,000-\$39,999 c. \$40,000-\$59,999 d. \$60,000-\$79,999
 e. \$80,000-\$99,999 f. \$100,000-\$149,999 g. \$150,000-\$199,999 h. above \$200,000

5. Marital Status: a. single b. married c. divorced d. widowed e. other

6. Education: a. in school now b. high school graduate c. in college now
 d. college graduate e. advanced degree f. other (be specific) _____

7. Ethnicity: a. Caucasian b. African American c. Hispanic
 d. Asian/Pacific Islander e. American Indian f. Interracial g. other

8. Occupation: a. management b. technical c. professional d. sales e. clerical
 f. education g. skilled worker h. non-skilled worker i. other

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BIOGRAPHICAL SKETCH

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