

8-1-2009

# Fantasy sport consumer behavior: an analysis of participant attitudes and behavioral intentions

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

FANTASY SPORT CONSUMER BEHAVIOR: AN ANALYSIS OF  
PARTICIPANT ATTITUDES AND BEHAVIORAL INTENTIONS

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy

Brendan Dwyer

College of Natural and Health Sciences  
School of Sport and Exercise Science  
Sport Administration

August, 2009

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AUGUST 2009

THIS DISSERTATION WAS SPONSORED

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## ABSTRACT

Dwyer, B. *Fantasy Sport Consumer Behavior: An Analysis of Participant Attitudes and Behavioral Intentions*. Published Doctor of Philosophy dissertation. University of Northern Colorado, 2009.

Fantasy sport participation is a highly-lucrative online activity that has witnessed unprecedented growth in the last fifteen years. As a result, the hobby and its participants have become an integral component of the sport industry. However, a more complete understanding of the unique attitudes and behaviors of fantasy sport participants is required to aid sport marketers in the packaging and delivering of spectator sport.

Due to this intriguing circumstance, the purpose of this study was to examine the relationship between fantasy sport participation and intentions to watch televised National Football League (NFL) games. In addition, given the varying levels of fantasy participation, this study also examined the moderating effect of fantasy football involvement. Lastly, given the unique nature of the activity, this study also investigated the relationship between fantasy football involvement and traditional NFL fan loyalty.

Data collection for this quantitative study took place in November of 2009. Following Dillman's web-based survey protocol, 1,600 fantasy football participants were solicited to complete a 37-item instrument. A total of 325 participants completed the survey, resulting in a response rate of 21.5%.

To determine relationship between fantasy football participation, involvement level, and intentions to watch televised NFL games, a two-way mixed design ANOVA

was interpreted. The results indicated significant differences between who is playing the game, involvement level, and viewership intentions. An independent samples *t* test was employed to examine the relationship between fantasy football involvement and fan loyalty, and a positive relationship was determined. Lastly, a logistic regression was conducted to predict differing levels (high & low) of fantasy football involvement. A significant model for predicting fantasy involvement level was established.

In conclusion, it appears fantasy football participation is a positive activity that promotes consumption of the NFL, its teams, and its corporate partners. The results suggest participation duplicates the unique attitude-behavior relationship within spectator sport and results in increased sport consumption of televised sport products including several NFL teams and ESPN's Monday Night Football. However, individual predictor variables for fantasy football involvement raised intriguing questions about the theoretical relationship between the attitudinal and behavioral dimensions of fan loyalty.

## ACKNOWLEDGEMENTS

To successfully navigate the journey of writing, proposing, and defending a dissertation, it requires the sacrifice of many more than just the author. Due to this fact, I would be remiss not to acknowledge the individuals who assisted my progression. First, I would like to thank the efforts of my dissertation committee, specifically Dr. David Stotlar. Without your guidance, support, and professionalism, I would have been left toiling with unanswered questions and a lack of focus. You have been a wonderful mentor for the past three years and I hope to draw upon your wealth of knowledge for years to come. I would also like to graciously thank Dr. Dianna Gray for all of her assistance during my three years at Northern Colorado. Your unending thirst for knowledge and genuine enthusiasm for our field have been inspirational. I hope to acquire these attributes and take them with me as I begin my career in academe. To committee members, Dr. Bob Heiny and Dr. Vish Iyer, thank you for your constant support for my unique research topic. This paper would not have been completed without your expert advice, guidance, and thoughtful encouragement.

I would also like to thank some additional Northern Colorado faculty and staff for their integral role in this research process. First, I would like to acknowledge the hard work of Professor Linda Sharp. The rigor in which you teach and conduct research has served as the gold standard for what higher education should be. In addition, the high expectations you had for me as both a student and researcher helped me transition

successfully into the world of higher education. I would also like to thank Dr. Susan Hutchinson. While I only had you for one summer course, your assistance was pivotal in the progression of this project. The amount of time you spent answering my questions and the depth of feedback you provided were amazingly helpful. I truly believe that the University Northern Colorado is a better institution with you here. I would also like to acknowledge the support I received from my colleagues at the Center for the Enhancement of Teaching and Learning. Thank you for putting up with me during the emotional rollercoaster of attaining a Ph.D. I could not have done it without your support.

Next, I would like to acknowledge the two people that made all this possible, my parents, Peter and Hilary Dwyer. I would not be who I am today, if it were not for you two. You are the foundation on which I was built, the shoulders on which I stand, and the roots upon which I grow. I truly appreciate your unrelenting support from day one, and I hope I can fulfill your parenting legacy someday. You are, and continue to be, the best role models I have ever had. I would also like to thank my siblings, Adam and Caragh, and their families. In addition to the occasional financial assistance, your constant encouragement has meant a lot to me. I cannot forget my new family, the Ketelhut's. Jack, Sally, Scott, and Shelly thank you for all of your help and support during the last five years. I am extremely proud and excited to be a member of your family.

Next, I would like to deeply thank the efforts of my colleagues at the University of Northern Colorado, both past and present, most notably Dr. Joris Drayer and Dr. Stephen Shapiro. I cannot thank you enough for all your guidance during this process. Both of you served as excellent mentors and I look forward to many years of collaboration, scholarship, and most importantly, friendship. Also, I would like to



acknowledge Dr. Alan Morse, Dr. Chrysostomos Giannoulakis, Cody Havard, Terry Eddy, and Lori Braa. Thank you for the years of advice, entertainment, and companionship.

Lastly, and most importantly, I would like to thank my beautiful and talented wife, Lori. There are no words to explain how much you mean to me and how much you helped in this process. Not only did you proofread nearly the entire document, but your patience, strength, and ability to keep me grounded are the reasons I was able to keep my sanity and survive. You give me the confidence to move mountains. I just hope one day I can return the favor. You are forever my soul mate, and I look forward to a lifetime of memories and accomplishments just like this.

For my friend,  
BRETT “BRUTUS” ARMIN,  
1979-2008,  
It was through his friendship that I learned  
the true value of fantasy sports.

## TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
Statement of Problem.....	5
Research Questions and Hypotheses.....	8
Rationale for the Study.....	9
Delimitations.....	12
Limitations.....	12
Definitions of Terms.....	13
II. REVIEW OF LITERATURE.....	16
Sport and Consumption.....	16
The distinctiveness of sport.....	16
Sport commercialization.....	18
Sport fans.....	20
Sport consumption.....	22
Sport media consumption.....	26
Sport Consumer Behavior.....	30
Attitude–behavior relationship.....	31
Fan loyalty.....	36
Consumer involvement.....	43
The Fantasy Sports Phenomenon.....	47
Scholarly literature.....	48
Fantasy sports industry trends.....	53
Conclusion.....	57
III. METHODOLOGY.....	59
Sample.....	60

CHAPTER	PAGE
Population.....	60
Sample Design.....	61
Sample Size.....	61
Instrumentation.....	63
Team/game preference variables.....	63
Viewership intention variable.....	64
Fantasy football involvement variable.....	65
Attitudinal loyalty to team variable.....	67
Fantasy information variables.....	68
Demographic variables.....	71
Design and Procedures.....	71
Design.....	71
Procedures.....	72
Statistical Techniques and Data Analysis.....	73
Statistical techniques.....	73
Data analysis.....	78
 IV. THE IMPACT OF ATTITUDES AND FANTASY FOOTBALL INVOLVEMENT ON INTENTIONS TO WATCH NFL TEAMS ON TELEVISION.....	    84
Introduction.....	84
Sport fan attitudes and behavioral intentions.....	87
Purpose and hypotheses.....	90
Methods.....	93
Sample and instrumentation.....	93
Procedures and analysis.....	94
Results.....	96
Hypothesis 4.1.....	97
Hypothesis 4.2.....	98
Hypothesis 4.3.....	98
Hypothesis 4.4.....	100
Hypothesis 4.5.....	101
Discussion and Implications.....	102
Limitations and future considerations.....	108

CHAPTER	PAGE
V. DIVIDED LOYALTY? AN ANALYSIS OF FANTASY FOOTBALL INVOLVEMENT AND ATTITUDINAL LOYALTY TO INDIVIDUAL NATIONAL FOOTBALL LEAGUE TEAMS.....	110
Review of Literature.....	112
The fantasy sports phenomenon.....	112
Fan loyalty.....	115
Consumer involvement.....	118
Methods.....	119
Sample.....	119
Instrumentation.....	121
Procedures and data analysis.....	123
Results.....	124
Research question 1.....	126
Research question 2.....	127
Discussion.....	128
Divided loyalty.....	128
Involvement implications.....	131
Limitations and future research.....	136
REFERENCES.....	138
APPENDICES	
A. Survey Notice.....	159
B. Thank You/Follow-up Email.....	160
C. Survey Instrument.....	161
D. Pilot Study Results.....	166

## LIST OF TABLES

TABLE	PAGE
4-1. Demographics of current study sample.....	97
4-2. Means and standard deviations for hypothesis 4.1.....	98
4-3. Means and standard deviations for hypothesis 4.2.....	98
4-4. Means and standard deviations for hypothesis 4.3 through 4.5.	99
5-1. Demographics of current study sample.....	125
5-2. Mean score differences on the ALTS for fantasy football Participants .....	127
5-3. Individual predictor results for logistic regression model.....	128
A-1. Demographics of pilot study sample.....	167
A-2. Means and standard deviations for hypothesis 1.1.....	168
A-3. Means and standard deviations for hypothesis 1.2.....	169
A-4. Means and standard deviations for hypothesis 2.1 through 2.3.	170
A-5. Predictor variables in logistic regression equation for hypotheses 3.1 – 3.7.....	174

## LIST OF FIGURES

FIGURE	PAGE
1-1. Fantasy football participation & the scope of televised viewership	7
2-1. Sport consumer behavior framework.....	30
2-2. Behavior intentions: The link between attitudes and behavior.....	36
4-1. Mean likelihood of watching a game on television featuring an NFL team with the participant's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.....	100
4-2. Mean likelihood of watching a game on television featuring an NFL team with the participant's opponent's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.....	101
4-3. Mean likelihood of watching ESPN's MNF game between two neutral attitude NFL teams and a game with two neutral attitude NFL teams and fantasy implications as a function of the level of fantasy football involvement.....	102
A-1. Mean likelihood of watching a game on television featuring an NFL team with the participant's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.....	171
A-2. Mean likelihood of watching a game on television featuring an NFL team with the participant's opponent's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.....	172
A-3. Mean likelihood of watching ESPN's MNF game between two neutral attitude NFL teams and a game with two neutral attitude NFL teams and fantasy implications as a function of the level of fantasy football involvement.....	173

## CHAPTER I

### INTRODUCTION

Due to differing methodologies, estimates of the economic significance of the sport industry vary widely. Despite this lack of concrete information, experts agree that the size of the sports industry is both considerable and growing (Mullin, Hardy, & Sutton, 2007). In a 1988 study, researchers Comte and Stogel (1990) estimated the sport industry was a \$62 billion business, equivalent to 22<sup>nd</sup> largest industry in the United States (US). In 1995, this estimate grew to \$152 billion establishing the sport industry as the 11<sup>th</sup> largest industry in the US (Meek, 1997). The most recent approximation concluded that the total economic activity related to the production and consumption of organized sport was \$213 billion (Broughton, Lee, & Netheny, 1999). According to Howard and Crompton (2004), with the addition of consumer spending on mainstream and alternative participatory sports, the sum of annual expenditures exceeds \$250 billion.

Despite this economic vitality, the contemporary sport marketplace is highly-unstable. Given the rapid commercialization of sport, sport managers and marketers are now competing with all forms of entertainment from the film industry to theme parks. Starting in the early 1990s, the average consumer has witnessed an unprecedented growth in the number sport and entertainment options available leading some industry experts to believe consumers have become overwhelmed as the result of this hyper-saturated



market. In the last decade, consumer spending on entertainment slowed to six percent, annually (Stevens & Grover, 1998). This embodies a rate much smaller than the growth of most sport and entertainment properties over the same period of time (Howard & Crompton, 2004).

One sector of the emergent sport industry, spectator sport, is of primary concern for this study. At the macro-level, spectator sport is a prosperous endeavor. However, given the rapid expansion of teams, leagues, and even sports, the individual sport manager is faced with a formidable challenge of competing in an inundated market. One of the biggest players in the evolution of the modern sport marketplace has been the television. Since the 1950's, the television has helped build fan bases around the world (Mullin et al., 2007). The unpredictability and unscripted drama of sport performance is a natural fit for television broadcasters looking to attract and retain large audiences. However, the early success of televised sport has resulted in an abundance of present-day televised sport programming. The days of only receiving the "Game of the Week" are over, as cable channels are now jam-packed with 24-hour sports coverage. For instance, this decade has witnessed the unprecedented success of the Golf Channel, the NFL Network, and the Big Ten Network. This has led to an explosion of copycat networks in which sports fans have the opportunity to subscribe to sport, league, and even conference-specific cable channels. In addition, the growing popularity of action sports such as skateboarding, snowboarding, and marathons has eaten up a significant amount of consumer attention. As a result, the perpetual battle of creating a loyal fan base has become increasingly more difficult.

Similar to other business sectors, the sport industry is driven by individual consumers. For the modern-day sport organization, creating and maintaining large, committed audiences is fundamental for sustainability. However, the contemporary sport fan has evolved into a demanding and mercurial consumer. In addition, technological advances and high-quality media offerings have produced an ultra-competitive marketplace wherein sports fans have a litany of outlets in which to spend their limited amount of time and money. This paradox has created a significant marketing challenge for the sports industry. Fan connection, even at a fundamental level, is a difficult endeavor. Therefore, further investigation into sport consumer behavior is required to arm sport marketing practitioners with the appropriate demographic and psychographic information to adequately compete in the sport market.

According to researchers Funk and James (2006), contemporary sport consumer behavior seeks to understand consumer attitudes and behavior in order to enable sport marketers to effectively package and deliver sport products and services. Interestingly, despite the prevalence of televised sport in our society, much of the discussion about sport consumer behavior has ignored media use as a viable revenue stream (Pritchard & Funk, 2006). However, according to Mahony, Madrigal, and Howard (2000), explaining repeat viewership and the impact of media use on that behavior is indispensable in today's market because it often generates improved marketing and communication strategy.

Recently, an ancillary sport media service created originally to enhance the experience of traditional sport fandom has developed into a cultural phenomenon. This activity, called fantasy sports (a.k.a. Rotisserie and Fanalytics), has rapidly evolved and

captured the hearts and minds of sports fans everywhere. Introduced nearly a half-century ago as an activity for the statistical gurus and sports fanatics, fantasy sports began as a small operation. Fuelled by extremely loyal and highly-engaged participants, it grew slowly until the mid-to-late 1990's where it exploded into popular culture. Now, estimated to have a \$4 to \$5 billion market impact, the business of fantasy sports is booming with more than 29.9 million Americans and Canadians participating (FSTA, 2008c).

The premise of fantasy sports allows individual participants to act as general managers or owners of their own sports team. Typically, participants compete weekly against other fantasy team owners in a league-style format. This competition usually lasts throughout the regular season, and is directly associated with real-world professional sports and the statistical output of athletic performance. The game is primarily an online service that is completely customizable, interactive, and involves nearly every major professional sport, from the NFL to bass fishing. In addition, fantasy sport allows fans to simultaneously follow their favorite sports while actively competing and interacting with family, friends, and acquaintances (Farquhar & Meeds, 2007).

According to Shipman (2001), the explosion of fantasy sports has introduced a new, highly-engaged consumer that craves interactivity and real-time statistical information combined with the traditional, old-fashioned spectatorship associated with professional sport. Furthermore, many fantasy players participate in several leagues during a single season and throughout the year. Because of this habitual commitment, fantasy sport has emerged as an easy, cost-effective means of reaching an engaged and loyal group of consumers (Leporini, 2006). Recently, television networks have begun to

realize this population's potential. According to Zeitchick (2005), for perhaps the first time in history, a subculture made up of fantasy participants is driving strategy at some of the nation's biggest broadcasters. For instance, the addition of Fantasy Stat Trackers – scrolling scores and statistics – as well as frequent updates of games around the league has allowed fantasy football participants to keep up with several individual players throughout the league simultaneously. Based on this remarkable phenomenon, there is a need for specific consumer behavior research examining the relationship between fantasy sports participation and televised viewership.

#### Statement of Problem

The purpose of this study was to examine the relationship between fantasy sports participation and intentions to watch televised National Football League (NFL) games. An individual's social behavior is largely a function of his or her perceptions of a specific situation (Fazio, Powell, & Herr., 1983). With regard to sports fans, previous research has established that a preference for a specific team has an effect on their decision to watch specific games (Mahony & Howard, 1998; Mahony & Moorman, 1999, 2000). This assumption is of crucial importance because “the extent to which attitudes influence such perceptions determines the degree to which attitudes guide behavior” (p. 208, Fazio, 1986). Recently, fantasy football participation has been found to influence fan perceptions of the NFL (Drayer, Shapiro, Dwyer, Morse, & White, in press). This study examined the extent to which fantasy football participation stimulates an individual's attitude towards NFL teams and games by investigating the relationship between fantasy participation and intentions to watch the televised broadcast of these sport products.

Fantasy sports participation is a unique pastime that has the potential to realign a participant's interests. The results of the qualitative pilot examination for this study indicated that the fantasy sports has created a new, more diverse sport fan with a significant interest in a group of heterogeneous players in addition to their favorite team(s). For instance, a fantasy football participant manages up to twelve players on his/her own team. Each week, this participant competes against another fantasy football team with an average of eight different activated players. As a result of competitive interests, a certain level of attachment is awarded to the participant's own players as well as an awareness of the players on his/her opponent's team.

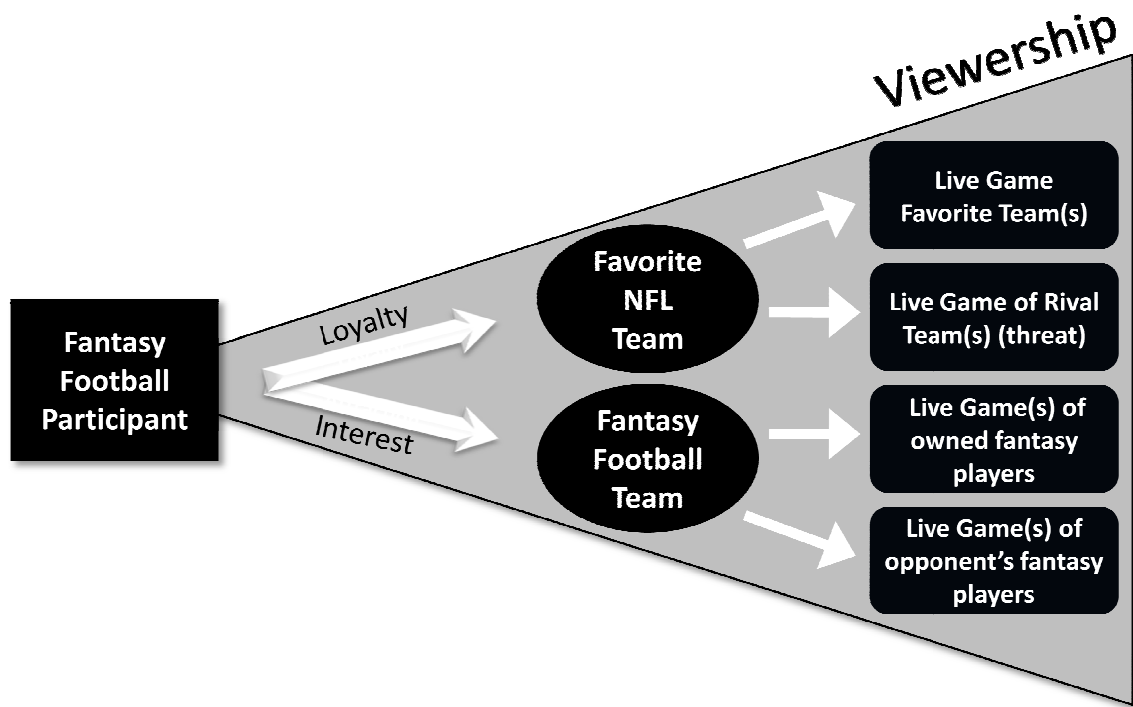
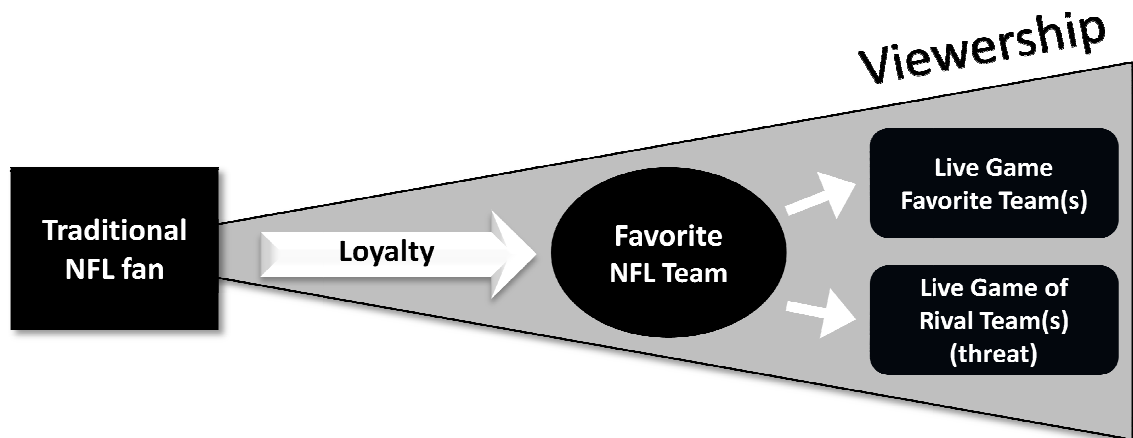
The combination of these untraditional interests can ultimately result in a competitive curiosity in nearly every NFL game played each weekend. As illustrated in Figure 1-1, this explosion of interest has widened the scope of televised viewership from team-centric to league-wide. However, given the exploratory nature of the pilot study, further investigation was warranted to validate these findings and provide more generalized results.

In addition, given the varying levels of fantasy participation, this study also examined the moderating effect of fantasy involvement on the consumption of televised NFL games. Fantasy football involvement focused on the unique relationship between a fantasy participant and the activity of fantasy football. Specifically, it is a motivational variable reflecting the extent of personal relevance towards fantasy football based on the inherent needs and interests of the individual.

Lastly, this study investigated the effect of fantasy football involvement on traditional fan loyalty. Given the unpredictability of sport competition, identifying,

attracting, and retaining a group of loyal consumers is a fundamental objective for any sport organization. In the NFL, fan loyalty has traditionally been reserved for one team; however, the advent of fantasy sports has enhanced the visibility and importance of individual players on different teams. This unique bond has the potential to realign fan allegiances, and ultimately, force sport practitioners to alter marketing communication strategies to account for it. Given the significance of these issues, the following research questions and hypotheses were developed to guide this research:

**Figure 1-1** Fantasy football participation & the scope of televised viewership



## Research Questions and Hypotheses

- Q1 To what extent are fantasy football-related team and game preferences related to traditional team preferences and intentions to watch the televised NFL games?
- H1.1 When a fantasy football participant is asked how likely they are to watch specific NFL teams in a typical game, fantasy football participant's will exhibit the following order of preference: (a) favorite NFL team, (b) team with best fantasy player, (c) a team with their opponent's best fantasy player, (d) most disliked NFL team when it is described as a threat, (e) neutral-attitude NFL team.
- H1.2 When a fantasy football participant is asked how likely they are to watch a Monday Night Football (MNF) game between two neutral teams, fantasy football participants are more likely to watch the contest if their weekly fantasy outcome is dependent upon players in the game.
- Q2 To what extent does intention to watch televised NFL games depend on the interaction between who is playing in the game and an individual's level of fantasy football involvement?
- H2.1 When a fantasy football participant is asked how likely they are to watch their fantasy football player's team and a neutral team, there will be a significant interaction between who is playing in the game and fantasy football involvement level. Highly-involved participants will be significantly more likely to watch their fantasy player's team, while low involved participants will not indicate a significant difference in intentions to watch these teams.
- H2.2 When a fantasy football participant is asked how likely they are to watch a team with their opponent's best fantasy football player and a neutral team, there will be a significant interaction between who is playing in the game and fantasy football involvement level. Highly-involved participants will be significantly more likely to watch the team with their opponent's best fantasy player, while low involved participants will not indicate a significant difference in intentions to watch these teams.
- H2.3 When a fantasy football participant is asked how likely they are to watch ESPN's Monday Night Football when it is described as consisting of two neutral teams with no fantasy implications and the same two neutral teams with fantasy implications, there will be a significant interaction between the two different games situations and fantasy football involvement level. Highly-involved participants will be more likely to watch the MNF game when there are fantasy implications, while low involved participants will not indicate a significant difference in intentions to watch these games.
- NOTE: Significant interaction effects between involvement and the other two teams (favorite and most disliked) are not expected.



- Q3 What explanatory variables predict a participant's level of fantasy football involvement?
- H3.1 The amount of money expended to participate is positively related to the level of fantasy football involvement.
  - H3.2 The number of years of fantasy football participation is related to the level of fantasy football involvement.
  - H3.3 The number of friends, family, and co-workers against whom fantasy football players are participating is positively related to the level of fantasy football involvement.
  - H3.4 The number of total teams owned is not related to the level of fantasy football involvement.
  - H3.5 The participants who consider fantasy football to primarily be a game of skill will exhibit a higher level of fantasy football involvement than participants who consider fantasy football to primarily be a game of chance.
  - H3.6 A participant's level of loyalty to their favorite NFL team is not related to their level of fantasy football involvement.
  - H3.7 A participant's likelihood to watch either their favorite NFL team or the NFL with their best fantasy player when both teams are playing concurrently is not related to their level of fantasy football involvement.
  - H3.8 The amount of time spent on the Internet per day does not explain the level of fantasy football involvement.
  - H3.9 The age of a participant is not related to the level of fantasy football involvement.
- Q4 To what extent is the level of fantasy football involvement related to a participant's loyalty to their favorite NFL team?
- H4.1 The level of fantasy football involvement is not related to an individual's loyalty to their favorite team.

### Rationale for the Study

The study of consumer behavior is a vital component to any organizations marketing strategy (Blackwell, Miniard, & Engel, 2005). Furthermore, the need for additional research investigating the distinct attitudes and behaviors of the media-dominant sport fan is well documented (Mahony & Moorman, 1999; 2000; Mahony et al., 2000; Pritchard & Funk, 2006). Recent preliminary studies by Comeau (2007) and

Woodward (2006) have determined that fantasy sports participants consume greater amounts of mass mediated sport than traditional sports fans. Therefore, it is important to gain a better understanding of the attitudes and behaviors of this unique population, and the results of this study will help to expand the overall body of knowledge in the field of sport consumer behavior.

Over the last 20 years, the rapid commercialization of televised sports has created a significant medium for sport consumption (Sullivan, 2006). For the current sports organization, this means profitability is no longer strictly dependent upon event attendance (Pritchard & Funk, 2006). Given the rise in consumer behavior inquiry and the popularity of televised sport, researchers have recently begun to examine television viewership and sport consumption (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000; Pritchard & Funk). In fact, according to Mahony and Moorman (1999), examining sport television viewership, as opposed to event attendance, is more representative of a consumer's attitude toward a sport object because several unrelated factors could affect game attendance (e.g. weather, location of facility, cost of tickets, quality of location). In all, previous research has determined that sports fans primarily have an interest in watching their favorite team and sometimes their most disliked team when that team is perceived as a threat. However, the impact of fantasy sports participation on televised viewership has received little or no attention. Therefore, this study attempts to provide empirical evidence to satisfy this gap in the knowledge-base.

In addition, this study provides the principal information regarding the attitudes and behavioral intentions of varying levels of involved fantasy participants. The level of involvement for consumers has been shown to affect attitudes towards products and

services and purchase decisions (Zaichkowsky, 1994). Accordingly, it has been heavily-utilized as a consumer indicator in the fields of marketing, advertising, and leisure behavior.

Finally, the results provide important theoretical information regarding the interaction between fantasy football involvement and fan loyalty. Both constructs have been heavily-researched and well documented as vital determinants of sport consumer behavior (Backman & Crompton, 1991a; Funk & James, 2001; 2006; Funk, Ridinger, Moorman, 2004; Park, 1997; Pritchard, Havitz, & Howard, 1999; Zaichkowsky, 1994); however, neither has been examined in the context of fantasy sports. As mentioned above, fantasy sports participation has the potential to realign well-established fan allegiances. Therefore, in addition to the theoretical gain, the findings of this study provide practical implications for the future marketing of individual players, teams, and leagues.

In conclusion, the contemporary sport marketplace is highly-competitive. Consumers have numerous outlets in which to spend their limited amount of time and money. In addition, technology continues to rapidly evolve. For the current sport manager, it is imperative to understand consumer intentions, embrace the promise of alternative means of sport consumption, and create powerful customer loyalty programs to encourage repeat patronage. The adoption of Internet initiatives, such as fantasy sports, will help establish distinctive communication and service links with current and prospective consumers (Howard & Crompton, 2004). However, in the meantime, it is important to gain a further understanding of the unique attitudes and behaviors associated with this interactive activity. Therefore, the investigation of the effects of fantasy

football involvement on traditional fan loyalties and ultimately their intentions to consume a sport product is beneficial. Thus, in addition to updating the theoretical knowledge of this unique sport population, a more complete understanding of the consumption behavior of fantasy sports participants will help sport marketing practitioners properly package and deliver sport products.

#### Delimitations

This study examined the relationship between a fantasy football participant's level of fantasy football involvement, fan loyalty, and intentions to watch televised NFL games. First, it cannot be assumed that the results of this study can be generalized to other fantasy sports such as: fantasy baseball, fantasy basketball, fantasy hockey, or fantasy golf. However, according to the FSTA (2008), 96 percent of all fantasy participants take part in fantasy football; therefore, some of the consumer information can be generalized. Second, variables used in this study were selected after a review of literature regarding product and service involvement in the business sector. This study does not imply that the selected variables are the only antecedents of a fantasy participant's intention to watch televised NFL games.

#### Limitations

1. This study relied primarily on quantitative data to explain the effects of fantasy football involvement and fan loyalty on intentions to watch televised NFL games.
2. A self-administered survey instrument was be utilized to collect data. Given the nature of survey methodology, the information provided by the respondents in the survey cannot be assumed completely accurate. However, participants completed the questionnaire voluntarily and privately. It is assumed that participants responded accurately and in accordance with their true beliefs, feelings, and experiences.

3. Alternative instruments which may be employed to explain fantasy sport participants' consumption behavior cannot be excluded.
4. A significant percentage of non-respondents may have a critical influence on the sample and the generalization of the findings.
5. Fan loyalty is a construct that results in social desirability bias from respondents. That is, participants tend to give honest but overly positive reports about their level of loyalty to their favorite NFL team (Booth-Kewley, Edwards, & Rosenfeld, 1992). While steps have been taken to minimize this behavior, the fan loyalty scores for this study may possess diminished variability.

#### Definition of Terms

*Attitudinal Loyalty:* A guide to behavior based on the interaction between negative external changes and an individual's highly-developed attitude toward his/her favorite team. This concept was measured using Heere and Dickson's (2008) four-item Attitudinal Loyalty to Team scale (ALTS).

*Consumer Sovereignty:* Consumers are relatively free to choose between products and services that meet their specific preferences. The failure of any producer, supplier, or server to satisfy these preferences is typically met with a consumer's response of taking their business elsewhere (Keat, 1994).

*Fan Loyalty:* A two dimensional construct where highly-developed fan attitudes (attitudinal loyalty) toward an object guide behaviors that result in repeated consumption (behavioral loyalty) of a sport object (Backman & Crompton, 1991a; Dick & Basu, 1994).

*Fantasy Sports:* Also known as Rotisserie and Fanalytics, fantasy sports is a game in which participants act as general managers or owners of their own sports team. Completely customizable, interactive, and involving nearly every major professional sport from football to bass fishing, fantasy sports is primarily an online service that allows fans to simultaneously follow their favorite sports and actively compete and interact with family, friends, acquaintances, or even strangers based upon real-world professional player statistics (FSTA, 2008a; Levy, 2005).

*Fantasy Football Participant:* An individual who is eighteen years or older and currently participating in some form of fantasy football.

*Fantasy Football Involvement:* A motivational variable reflecting the extent of personal relevance towards fantasy football based on the inherent needs and interests of the individual (Beinstock & Stafford, 2006; Gabbot & Hogg, 1999; Zaichkowsky, 1985). This variable was measured using a version of Zaichkowsky's (1994) two-dimensional Personal Involvement Inventory (PII) specifically adapted by Celuch and Taylor (1999) for the service industry.

*Sport Consumer Behavior:* Sport consumer behavior is the combination of consumer attitudes, motivations, and beliefs about sport products and services that result in a guided response in the form event attendance, merchandise acquisition, or television viewership.

*Sport Fandom:* Sport fandom is a construct that consists of more than the behavior of simply attending and/or observing a sporting event (Jones, 1997). Instead, sport fandom represents an individual's association with a distinct sport product (team or

event) in which the individual obtains considerable amounts of emotional and value significance (Madrigal, 1995).

*Sport Consumption:* Sport consumption refers to the amount of time and/or money spent participating, spectating, following, or interacting with sport. With regard to this study, an FSP's sport viewing intention was used to measure sport consumption.

*Sport Viewing Intentions:* A fantasy football participant's sport viewing intention was investigated as the behavioral outcome of the relationship between fantasy sports participation and an individual's attitude towards a professional sport object. In this study it was measured by a participant's self-reported likelihood to watch a specific sport object (i.e., player or team) via live televised broadcast.

## CHAPTER II

### REVIEW OF LITERATURE

The review of literature for this study is divided into three sections. The first segment highlights the uniqueness of sport and its rapid commercialization. In addition, the concept of sport consumption is defined along with an in-depth look at sports fans and sport media consumption. The second part focuses on the burgeoning area of sport consumer behavior. Particularly, the relationship between attitudes and behaviors, fan loyalty, and consumer involvement are comprehensively examined. The last section introduces the reader to the phenomenon of fantasy sports. This portion specifically underscores the scholarly research in the area, connections with media use, and the extraordinary potential for growth.

#### Sport and Consumption

##### *The Distinctiveness of Sport*

Sport, like government or marriage, is an institution within our society that is limitless, indefinable, and ubiquitous. It dominates our educational system, influences our national identity, and is often the common bond that brings family, friends, neighbors and even complete strangers together. It is a source of idle chit chat at a company's water cooler, and like the weather, its unpredictable nature often leaves even the most cynical of individuals awe-inspired. Spanning several centuries, sociologists have attempted to properly define sport. This, in itself, gives a clear understanding of its fluid and ever-



changing nature. Beginning primarily as an activity for participation, sport has exploded into a multi-billion dollar enterprise that spans the breadth of our social comprehension. With regard to sport business, the uniqueness of this culture has transformed traditional economic thought. So much so, that our government fails to define it as its own business sector, and academicians, business theorists, and economists are continually inquiring into the mechanisms of sport products/services, operations, and fan behavior.

As mentioned in the introduction, the economic magnitude of sport is substantial. However, despite its economic significance, it is difficult to categorize sporting events into the traditional product or service sector. According to authors Mullin et al. (2007), sport events constitute the following two unique elements that set it apart from other business sectors: a sporting event is perishable, and marketers have little control over the product. The result is a limited shelf life for tickets in which once the sporting event is over, the value is entirely diminished. Furthermore, there is no such thing as an identical sport experience. Two independent sport fans may consume the same game in the same stadium at the same time and have two completely different opinions and attitudes with respect to the outcome.

Sport events also incorporate a unique relationship between the production of the core product and its extensions (Howard & Crompton, 2004; Mullin et al., 2007; Stotlar, 2005). For instance, a sporting event's services, production, distribution, and consumption occur simultaneously. This is a distinct deviation from a typical products sequential production process (e.g., a computer or automobile). While the game is the core product of a sport event, its extensions also attract consumers and bring in substantial revenues. Specifically, media rights, luxury suites, concessions, parking, and

merchandise sales are examples of product extensions employed to attract a range of consumers. Product extensions are uniquely positioned to attract broadcasters, corporate sponsors, and advertisers. Despite the breadth and scope of products offered beyond the game itself, the core product is still vital in the success of the sport event and is primarily used to target individual spectators and fans. Sport, however, was not always the diversified product it is today. In fact, echoing its cultural modalities, sport has witnessed extensive commercialization as it mirrored our nation's century-long corporatized industrialization.

### *Sport Commercialization*

Despite a few examples of the commercialization sport prior to the twentieth century, sport organizations, for the most part, avoided the lure of the capitalist economic forces that were dominating our nation's business culture. According to Andrews (2006), sport kept its 'amateurish' culture well into the 1900s by outwardly resisting the pressures of the marketplace. However, following World War II, even sport could not avoid the corporate-based consumerism that dominated every facet of American culture, and new values in the form of business administration, market research, and advertising quickly engrossed sport to a point at which it became "big business" (Bourdieu, 1998). By the second half of the twentieth century, "sport was conclusively – and, apparently irreversibly – integrated into the commercial maelstrom of consumer capitalist order" (p. 6, Andrews, 2006).

This, however, has been a source of great tension for certain sport organizations, namely collegiate institutions and the Olympic movement. The constant struggle to retain an amateur-focused atmosphere while attempting to capitalize on the consumer-demand

for the product caused a major schism between business and sport for these organizations. On the other hand, sport organizations such as the National Football League (NFL), National Basketball League (NBA), Major League Baseball (MLB), and National Hockey League (NHL) jumped at the commercial opportunities and ultimately, became profit-oriented businesses. The process, which some refer to as commodification (Walsh & Guilianotti, 2001; Williams, 2005), is ongoing and has just recently developed to a point where sport performance is no longer the primary concern for some organizations. Instead, profit maximization has taken precedent. According to Andrews (2001), sport organizations have become “brazenly commercial enterprises, that make no pretense as to the paramount importance of delivering *entertaining* products designed to maximize profit margins” (p. 154).

The largest player in this new-fangled approach to sport administration has been the television. Starting with the first televised broadcast of the 1936 Olympics in Berlin, television broadcasts of sporting events exploded into our cultural experience throughout the later part of the twentieth century. According to Hall (2002), the fusion of capitalist thought, sport, and television has created an over-dramatized three-ring circus called “sportainment” – the merging of sport and entertainment. For professional leagues, this is the result of interpreting market demand while intensely competing with other forms of entertainment for audience’s discretionary time and money. For a sport industry that once predominantly depended upon sport performance for fan attention and connection, Gerdy’s (2002) portrayal of the current sport marketplace is an example of how the industry has evolved:

Today, sport is packaged, merchandised, and marketed as entertainment. It is more about the money, television ratings, advertising rates, and corporate sky boxes than it is about sport (p. 26).

The results and perspectives of this synergistic and highly-lucrative relationship vary. On one hand, sports consumers are supplied with a litany of televised events to satisfy their sporting needs. Yet on the other hand, event start times have been pushed back to 9:00pm and sometimes even 9:00am in order to receive highly-sought after television coverage. This echoes the growing sentiment, “if we can’t see you, you don’t exist” (p. 44, Rein, Kotler, & Shields, 2006). Corporate sponsors and advertisers understand the significant buying-power of the sport viewing audience and are willing to shell out substantial sums of money to align themselves with sport products. However, the constant bombardments of corporate advertising, irregular event start times, and gargantuan salaries of the contemporary athlete have begun to alienate sports fans (Rein et al.). And as mentioned above, despite the shifting priorities of the contemporary sport organization, creating and maintaining large, committed audiences is fundamental for sustainability. Therefore, sport organizations must continually balance the needs, motivations, and constraints of the shifting population of sports fans to ensure competitive vitality.

### *Sports Fans*

Sport has become so omnipresent within our culture, it is virtually impossible to reside within the United States and be unaware of, or unaffected by its continuous onslaught. With that said, nearly everyone is a sports fan to some degree. Whether it is a deep-seeded familial tie or a faint geographic attachment, a fervent scholastic affiliation

or simply a fondness for a team's mascot, sport has far-reaching influence and the result is a drastically diverse group of individuals with copious levels of engagement. The process of being a sport fan is in a state of constant change, and all sports fans are in play when it comes to the defining, attracting, and retaining of this diverse population. From a business perspective, the segmentation of the sport fan is paramount as it allows for marketers to properly package and deliver sport. However, to fully understand and segment this large group of fans it is necessary to identify the numerous ways and frequency in which in they consume sport.

The majority of fans must deal with two essential issues – money and time. The financial impact of being a fan is a constant struggle as most individuals have only a certain amount of discretionary income. In addition, the current cost of attending an event at the professional level is consistently rising above the rate of inflation, 4.35% compared to 4.17% in 2007 (Bureau of Labor Statistics, 2008; Team Marketing Report, 2008). For instance, for a family of four the current cost is \$177 for attending an MLB game, \$282 for the NBA, \$283 for the NHL, and \$367 for the NFL (Team Marketing Report).

The average American has also seen the amount of recreational time decrease from 26 hours per week in 1973 to 19 hours in 2004 (Harris Interactive, 2004). Therefore, the even the amount of time available for individuals to consume sport is increasingly limited. Given these two distinct constraints on sports fans combined with a market crowded with entertainment options, the contemporary sport fan is highly-elusive. Authors Rein et al. (2006) proposed a seven-facet dynamic marketplace in which the current fan resides. According to the authors, the current marketplace includes the following major characteristics: (1) a pressurized competitive environment, (2) higher fan

expectations, (3) paradox of commercialism, (4) new technology, (5) individualism, (6) changes in family structure and behavior, and (7) time pressure.

In all, the contemporary sport fan has become highly-evolved, demanding, and mercurial. As a result, fan connection, even at a fundamental level, is a difficult endeavor. Therefore, the importance of sport consumer behavior research has grown as sport organizations continually search for additional means of gaining a competitive advantage. However, before sport consumer behavior can be examined, it is necessary to understand what is meant by sport consumption.

### *Sport Consumption*

As mentioned above, the uniqueness of sport has a significant effect on its production. Sport consumption is also significantly altered by the distinctiveness of the industry. For instance, consumer behavior literature defines consumption simply as a consumer's usage of a purchased product or service (Blackwell et al., 2005). However, given the exclusivity of sport, consumption is defined more broadly. The current sport consumer has several ways in which to engage in sport including attending, watching, listening, reading, and participating in a sport event (Mullin et al., 2007). In addition, the purchase of team-related merchandise, sport-specific equipment, and game-explicit television packages are additional avenues in which sport fans can consume sport. Recently, as the Internet has evolved, sport fans have been given the opportunity to interactively engage in sport through user-friendly platforms such as fantasy sports, message boards, and blogs. As a result, sport sociologists and marketers have defined sport consumption differently for decades (Burnett, Menon, & Smart, 1993; McPherson, 1976).

One of the first definitions of sport consumption spanned several major concepts of contemporary sport consumer behavior. McPherson (1976) proposed that sport consumption included elements that went beyond direct or indirect behavior (attending, purchasing, or watching). Specifically, the author suggested an affective component (commitments and loyalties) and a cognitive component (knowledge of individuals, teams, and rules of the sport) should be included in the concept of sport consumption. This definition has since been narrowed to strictly the behaviors associated with sport (participation, event attendance, television viewership, merchandise acquisition, etc.).

However, given this array of behavioral possibilities, sport marketing researchers recently divided sport consumption into two major categories: *participation* in competitive, nature-related, and fitness activities, and *spectatorship* in the form of event attendance, television viewership, and reading of sport publications (Shohlan & Kahle, 1996; Sun, Youn, & Wells, 2004).

One clear distinction in defining sport consumption in this study is the difference between spectating and being a fan. In this study, spectatorship involves actually attending a game. However, not every individual that attends a game is a fan, nor do all fans attend games. In fact, some of the most involved sport fans rarely attend games due several uncontrollable constraints, including geographic location, ticket availability, and economic limitations. However, given the enhanced accessibility via media communications, these fans continue to practice the traditions associated with being an avid supporter, and thus, require the same amount of attention as sport spectators. Interestingly, much of the discussion about sport spectator consumption has focused on what drives event attendance and has, for the most part, ignored indirect consumption as

a viable revenue stream. According to Pritchard and Funk (2006), media-dominant patrons are in need of further in-depth investigation as they are a professional league's most substantial fan base and often exhibit the same fan-related practices as heavy consuming sport spectators. As an example of the size of the television audience, in 2005, the NFL reported 17 million fans attended games at 90 percent stadium capacity (Associated Press, 2005a); however, the NFL's television viewing audience was over 125 million (Jenkins, 2005).

Interestingly, given the brisk speed in which Web 2.0 technology has evolved, previous definitions have failed to include any form of spectator interaction with sport. The explosion of Internet applications including fantasy sports leagues and user-generated social media in the form of message boards, blogs, and peer-to-peer networks have enabled sports fans to actively engage with sport products at a level unknown to them even five years ago (Farquhar & Meeds, 2007; Seo & Green, 2008). Taken together, the contemporary sports fan is no longer a passive viewer. Therefore, with regard to the unique scope and framework of this study, sport consumption is operationally defined as the amount of time and/or money spent participating, spectating, following, or interacting with sport.

Despite the substantial tapering of his initial definition, McPherson's (1976) description led to numerous inquiries and segmentations of sport consumption. For instance, several authors have built upon McPherson's preliminary work and concluded that the affective and cognitive elements of sport consumption are more clearly represented as the fan identification and loyalty (Funk & Pastore, 2000; Funk & James, 2001; Wann & Branscombe, 1991; 1993). In addition, socialization between an



individual sport consumer and the surrounding environment plays a significant role in the consumption process (Shohlan & Kahle, 1996). For instance, sport and the consumption of sport by fans is a central component to the American lifestyle, particularly for American men. Levy (2005) defined this phenomenon as ‘fanship habitus’ or an ever-changing balance of historical, societal, geographical, and cognitive factors formed by an individual’s interactive practices with sport.

Given the diverse set of engagement levels and ultimately, the enormous economic ramifications, a continuum for classifying fandom has been proposed by numerous researchers (Funk & James, 2001; 2006; Giulianotti, 2002; Mullin et al., 2007). In addition, sport psychologists, sociologists, and consumer behaviorists continue to investigate the distinct processes that spur sport consumption. For instance, concepts such as identification, motivation, and involvement dominate the literature. However, often missing from the array of fan-related research are the practical steps to change current attitudes and ultimately, intensify a sport fan’s behaviors.

Unique to sport marketing, Mullin’s Escalator Theory attempts to provide the practical process for engaging different segments of the sport fan population. This theory separates consumers into three unique categories: nonconsumers, indirect consumers, and consumers. Based on these categories, further segmentation occurs as consumers are separated into subcategories: light users, medium users, and heavy users. The underlying principle is then to create an environment that entices these individuals to maintain a high level of consumption, increase their sport consumer intensity, and ultimately, move up the continuum. However, in today’s overly-cluttered marketplace, the competitive strategies of attracting fans have become tenuous. In addition, there is a gap in Mullin’s

theory, as indirect consumers, or media-dominant fans, have been virtually ignored. Currently, no sport fan continuum exists to explain their unique behavior.

While sport spectatorship has received the majority of the attention, examining the impact of media use is indispensable in today's market as it often generates repeat patronage and improved marketing and communication strategy (Mahony et al., 2000). Furthermore, the benefits of understanding indirect consumers is significant, for it helps sport managers properly segment the market, develop more effective advertising and sponsorship relationships, and reduce the risk of marketing failure. The following section underscores the importance of mediated sport consumption. In addition, it provides a comprehensive review of the previous academic inquiry investigating televised sport.

#### *Sport Media Consumption*

The importance of mediated sport in contemporary society is undeniable (Raney, 2006); however, "at the macro-level, sports and media have long been considered to be separate institutions in a symbiotic, if somewhat dysfunctional, relationship" (Bellamy, 2006, p. 63). Although event attendance still accounts for a considerable amount of a sport organization's income, the significance of sport media as a revenue stream should not be underestimated. In fact, according to Pritchard and Funk (2006), "trends of escalating consumption via media continue to indicate attendance is becoming less central to an organization's profitability" (p. 316). At the heart of this enhanced media consumption is televised sport programming and the increasingly important income from television rights fees (Howard & Crompton, 2003). For example, the National Football League currently receives \$8 billion over a six year period (2006-2011) in broadcast fees from CBS and FOX (NFL.com, 2004). In addition, ESPN is currently paying \$1.1 billion

annually over an eight year period for the rights to broadcast Monday Night Football, and NBC broadcasts Sunday Night Football for a fee of \$600 million annually (Associated Press, 2005b).

In addition, within the last two decades, televised sport programming has exploded. In Bryant, Brown, and Cummins' (2004) analysis of a week of broadcast and basic cable programming during June 2004, 532 sports programs were listed, adding up to 38,675 minutes, or nearly 645 hours, of sport content. Given that there are only 168 hours in a week, it is safe to say that sport consumers have numerous viewing choices. Unfortunately, with several options spanning various forms of media including websites, cell phones, and video games, once again, the sport consumer is dealing with a cluttered sport marketplace.

Furthermore, the exclusivity that once came with broadcasting a sporting event has vanished. For example, XM Satellite radio is now broadcasting every MLB game (Hines, 2004). Without exclusivity, the sport industry has been forced to re-evaluate its current position within this highly-evolving market. According to Rein et al. (2006), there are two critical implications for the contemporary sport decision-maker: (1) search out different forms of media, for traditional broadcast means will devalue, and (2) become your own media center. With new technology comes reduced costs and increased access; therefore, major media conglomerates will not be willing to shell out billions of dollars for a product they cannot control. However, the reduced costs of media production allow a sport organization to think beyond simply a content provider to also a major media supplier (Rein et al.).

In addition to televised sport, new media services in the form of online content and Internet applications have grown rapidly over the last decade. The implications of the Internet as a source of sports information for consumers are seemingly limitless (Eitzen & Sage, 2003). Interactivity is a central component of the Internet, and the explosion of sports-related websites epitomizes the legitimacy of sport in the realm of new media services (Boyle & Haynes, 2003). After search engines, the most frequently visited sites on the web were those that offered some kind of entertainment and sports (Ferguson & Perce, 2000). Furthermore, online betting and fantasy sports are two of the fastest growing areas in terms of interactivity, sports, and the Internet (Boyle & Haynes, 2003).

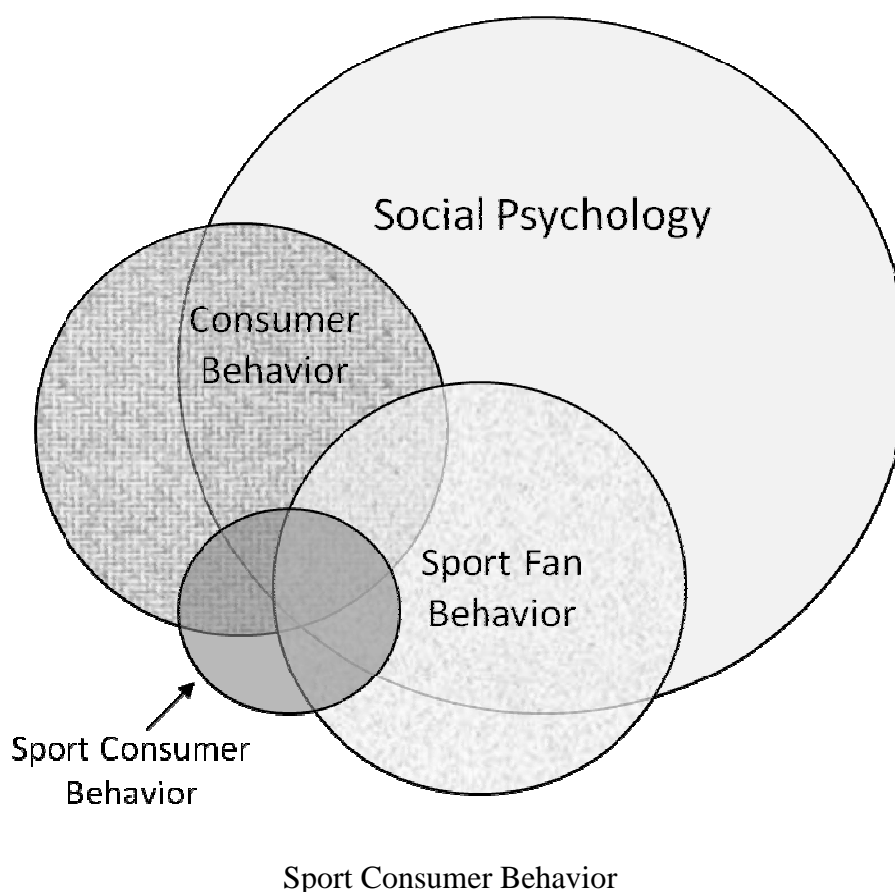
While the marketplace for internet sport marketing is considerable (Filo & Funk, 2005), the possibilities for growth are staggering. Currently, around 50% of Internet traffic is consumed by less than 5% of Internet users, and it is only a matter of time before the other 95% catch up (eMarketer, 2007). By 2012, 217 million Americans will be online, about 71% of the population (eMarketer, 2008). In addition, it is estimated that over 500 million people worldwide will have broadband subscriptions, allowing for internet access on 24/7 basis (eMarketer, 2007).

Overall, the rapid commercialization of televised sports and new media services has created several additional means for sport consumption (Sullivan, 2006). For sport marketers and consumer behaviorists, this has created an additional avenue to forecast sport consumer behavior through highly-developed attitudes. For instance, in 2006, researchers Pritchard and Funk investigated the symbiotic and substitution relationship between media use and event attendance. The authors implemented a dual route framework to segment a sample of major league baseball spectators by consumption

habits. According to the authors, the most interesting facet of the study was the information provided about the media-dominant consumer (Pritchard & Funk). These patrons are “more likely to purchase team-related merchandise, view media advertising and promotions, and are as involved with the sport as the ‘heavy’ consumer” (p. 316). Therefore, a further understanding of this group of spectators offers strategic insight for sport organizations, specifically when it comes to sponsorship opportunities (Pritchard & Funk). However, according to the authors, further research investigating the attitude-behavior construct in media-dominant sport consumers is necessary.

All in all, sports fans are continually balancing several significant concepts when making consumptive decisions including individual, social, emotional, and cognitive factors. In addition, each individual is consistently battling an internal struggle that involves limited amounts of time and money. The effects of this mercurial experience combined with enhanced media coverage and the need for a properly segmented market has resulted in a burgeoning area of research. Over the past two decades, academic inquiry into sport consumption has blossomed in to a multi-faceted investigation of the social, psychological, and behavioral elements of the sport fan (illustrated in Figure 2-1). The following section provides an in-depth description of sport consumer behavior including three theoretical concepts that are central to this study the attitude-behavior relationship, consumer involvement, and fan loyalty.

**Figure 2-1** Sport Consumer Behavior Framework (Hsie, 2003)



The importance of understanding consumer behavior is well documented (Blackwell et al., 2005). According to the authors, consumer behavior is defined as “those actions directly involved in obtaining, consuming, and disposing of products and services, including the decision processes that precede and follow these actions” (p. 4). While contemporary consumer sovereignty is pervasive and presents a formidable adversary, “understanding and adapting to consumer motivation and behavior is not an option – it is an absolute necessity for competitive survival” (p. 12). In addition, if the product or service being offered is designed to meet consumer needs and expectations, skillful marketing can influence motivations, attitudes, and behaviors.

Currently, sports fans have the ability to consume sport through several means including event attendance, television and radio broadcasts, newspapers, magazines, and the Internet. Therefore, for the current sport manager, understanding sport consumer behavior is imperative to ensure that the product or service being offered is meeting the specific needs of the market. Furthermore, for the current sport marketer, in-depth demographic and psychographic information regarding the sport population is critical in creating and maintaining large audiences (Trail & James, 2001).

Several factors may contribute to a consumer's behavior or decision making. For instance, previous research has determined the following factors affect consumption behavior: personal needs, intended use, degree of motivation, experience with a product, price, logic of information, and familial issues (Walters & Bergiel, 1989). However, this study intended to examine the relationship between attitudes and behaviors due to previous sport-related research that has found an intriguing correlation between positive and negative attitudes and consumption behavior (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000). Therefore, the following section provides a comprehensive review of the attitude-behavior relationship.

#### *Attitude-Behavior Relationship*

The attitude-behavior relationship framework has been examined extensively in the areas of psychology and consumer behavior (Fishbein & Ajzen, 1975; Fazio, 1986; Fazio et al., 1983; Wicker, 1969). The relationship between these two broad constructs has frequently been analyzed, questioned, and revised (Kraus, 1995). According to Fazio, early research focused on two main concepts. First, researchers examined whether specific attitudes could predict behavior. The literature on this type of attitude-behavior

relationship has shown that attitudes sometimes predict future behavior and sometimes they do not (Fazio, 2007). The second concept focuses on identifying moderating variables that affect the attitude-behavior relationship (Fazio). Variables such as inducements (Ajzen & Fishbein, 1973), various personality factors (Zanna, Olsen, & Fazio, 1980), and individuals holding a vested interest in a specific issue (Sivack & Crano, 1982) have been shown to affect the attitude-behavior relationship.

However, the goal of the current study is not to predict behavior based on attitudes, but rather to understand how attitudes relate to behavioral intentions and how different levels of involvement moderate these attitudes and behaviors. Fazio et al. (1983) developed a model to understand the influence that attitudes have on intentions. The model is process-oriented in that it focuses on *how* attitudes influence behavior. The model begins by assuming that an individual's social behavior is largely a function of his or her perceptions of a specific situation. For example, a sports fan's preference for a specific team has an effect on his or her decision to watch the game (Mahony & Howard, 1998; Mahony & Moorman, 1999, 2000). According to Fazio (1986), this assumption is of crucial importance because "the extent to which attitudes influence such perceptions determines the degree to which attitudes guide behavior" (p. 208).

Based on this assumption, a number of steps must occur in order for attitudes to influence behavior. First, the attitude must be activated. Fazio, et al. (1983) proposed that attitude activation based on a direct behavioral experience has a stronger influence on perceptions and behavior than indirect activation. Second, attitudes developed through a direct behavioral experience will impact perceptions of a situation or event. Additionally, if there is a set of norms or existing knowledge, these guidelines will also have a



powerful influence on perceptions of a situation or event. Finally, those perceptions, developed through a combination of an individual's attitudes and their subjective norms, will guide consistent behaviors relative to the specific event/situation in question.

The Fazio et al. (1983) model has been previously adapted within the context of sport viewership intentions (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000). Specifically, the researchers investigated the viewership intentions of both NFL and NBA fans in association with their favorite team, favorite player, most disliked team, most disliked player, and neutral teams.

Mahony and Howard (1998) investigated televised NFL viewership and suggested that fans of the NFL would prefer watching their favorite team and most disliked team play, rather than watching two teams in which a respondent had neutral feelings. The authors hypothesized that a vested interest in the teams that are competing will lead to increased television viewership. The results showed that fans significantly preferred watching their favorite team play over two neutral teams. However, respondents only preferred watching their most disliked team if the outcome had a direct effect on the success of their favorite team. Overall, interest in viewership only increased when a respondent's favorite team was directly or indirectly involved in the competition (Mahony & Howard).

Mahony and Moorman (1999) extended the Mahony and Howard (1998) study by examining television viewership intentions in the National Basketball Association (NBA). In addition, the authors investigated the affect of respondent's psychological commitment to their team (Mahony & Howard) on viewership intentions. The results showed that respondents preferred watching their favorite teams regardless of

psychological commitment. However, when asked about their intentions if their favorite team was having a bad season, psychological commitment became a significant variable. Those respondents with a high commitment had significantly higher intentions to watch their favorite team than those with low commitment.

Mahony and Moorman (2000) replicated the Mahony and Howard (1998) study in the NFL to provide further evidence of the influence attitude has on viewership intentions. The results confirmed past research which suggested the strong impact that a favorite team has on viewership. The authors concluded that sport marketers must create strategies to increase psychological commitment of fans in order to maintain or increase television viewership. In addition, sport marketers should strongly identify disliked teams in an effort to produce a perceived threat to fans' favorite teams.

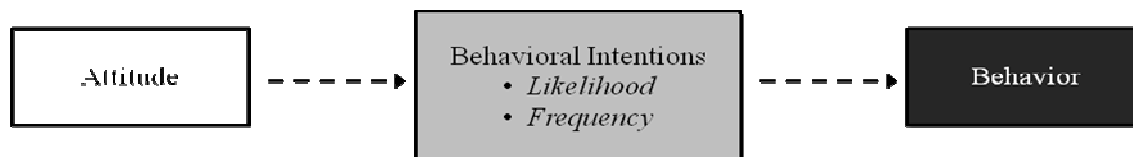
In total, authors Mahony and Moorman (1999) extrapolated that examining sport television viewership, as opposed to event attendance, is more representative of a consumer's attitude toward a sport object because several unrelated factors could affect attending a game (e.g. weather, location of facility, cost of tickets, quality of location). However, they also concluded that attitude-behavior relationship within the context of sport is complex due to the fact that negative attitudes towards a team (i.e., a rival team) can still lead to a positive behavior in terms of viewership. Recently, researchers Drayer et al. (in press) discovered a positive relationship between fantasy football participation and fan perceptions of the NFL. According to the authors, the result of this positive interaction is an increase in NFL media consumption and a newfound Sunday experience.

Following the Fazio et al. (1983) framework, the current study aims to examine the extent to which fantasy football participation stimulates an individual's attitude

toward individual NFL teams and games by investigating the relationship between fantasy participation and intentions to watch the televised broadcast of these sport objects. Given the unique nature of fantasy football in which participants become attached to a group of heterogeneous NFL players, an investigation into the attitude-behavior relationship with regard to fantasy participation may add to the complexity of the sport-associated paradigm. Furthermore, the novel popularity of fantasy football adds to the importance of this inquiry, for this relatively young and lucrative demographic of fantasy football participants are indispensable patrons of the NFL and its subsidiaries.

*Behavioral intentions.* As mentioned above, numerous factors or variables can influence consumer behavior. However, the current study plans to investigate the cognitive processes associated with consumer attitudes, and the cognitive mechanism of intention has been reported to be a direct of behavioral choice (Ajzen & Fishbein, 1980; Fishbein & Azjen, 1975). According to Bradburn, Sudman, and Wansick (2004), the relationship between attitudes toward an object and behavioral intentions is a good guide to behavior. In addition, social psychologists tend to view intentions as the mediating factor between attitudes and behaviors (Ajzen, 2008; Bagozzi & Warshaw, 1990; Fishbein & Ajzen). According to Ajzen, behavioral intention is the immediate antecedent of behavior, and is a fundamental measure of future action. A schematic representation of the relationship is shown in Figure 2-2. According to Mahony and Moorman (1999; 2000), the investigation of viewership intentions are representative of an individual's attitude toward the sport object. Therefore, viewership intentions were assessed by acquiring a fantasy football participant's self-reported likelihood of watching televised NFL games.

**Figure 2-2** Behavioral Intentions: The link between attitudes and behavior (Bradburn, Sudman, & Wansick, 2004)



In all, understanding behavior is a fundamental goal of many consumer behaviorists, and the relationship between attitudes and behavior is often the key component to understanding a consumer's repeat purchasing behavior. The concept of loyalty is most often used to conceptualize an individual's repeat purchasing behavior. Within the context of professional sport, understanding and fostering fan loyalty is paramount due to its inherent uncertainty. Therefore, to retain sports fans, marketers are required to cultivate additional connections with the sport product. Team identification underscores a well-researched social attachment (Wann & Branscombe, 1991; Madrigal, 1995; Sutton et al., 1997; Fisher & Wakefield, 1998). Fan loyalty, on the other hand, often signifies the highly-developed psychological connection point for sports fans. With regard to the current study, fan loyalty deserves investigation due to the unique nature of fantasy sports in which a participant's team-centric loyalties are potentially strained through the enhanced interest in a group of individual players not on one's favorite team.

#### *Fan Loyalty*

A loyal consumer displays intense recurring behavior and a strong, positive attitude toward a product (Jacoby, 1971). Early research into the consumer loyalty paradigm, however, focused primarily on behavioral responses for measuring loyalty, and failed to explain *why* individuals repeatedly purchase particular brands. In its infancy of study, consumer behavior researchers sought to explain how and why loyalty was

developed within a consumer. It was determined, according to researchers Day (1969) and Jacoby and Chestnut (1978), that characterizing brand loyalty solely on the basis of behavioral responses was not enough. Based on these arguments, loyalty definitions quickly adapted a two-dimensional model that explained both attitudinal and behavioral constructs. As a result, over the span of four decades, several consumer loyalty measures were developed (Backman & Crompton, 1991a; Dick & Basu, 1994; Jarvis & Wilcox, 1976; Rundle-Thiele & Mackay, 2001).

Stemming from this research, sport fan loyalty is viewed as a two dimensional paradigm involving both fan attitudes and fan behaviors. Previous research has determined that neither construct is mutually exclusive nor more important than the other, but fan loyalty cannot be sufficiently explained without understanding the relationship between the two (Backman & Crompton, 1991a; Gladden & Funk, 2001; Mahony et al., 2000). Nevertheless, for decades, sport management, sport sociology, and sport psychology researchers focused primarily on behavioral indicators of fan loyalty, such as spectator attendance figures and sport merchandise purchases. However, similar to traditional consumer loyalty, sport fan loyalty requires investigation beyond behavioral characteristics. That is, sports fans can be segmented by their degree of attachment to a team, which is conceptualized as an individual's attitude toward a sport product. Given the importance of both constructs for segmenting and differentiating markets based on loyalty, two significant papers emerged that broached the topic of both attitudinal formation and behavioral consistency (Backman & Crompton; Dick & Basu, 1994).

Examining the relationship between relative attitudes and repeat patronage behavior to conceptualize loyalty, Dick and Basu (1994) found that differentiated levels

of attitude strength result in requisite levels of repeat patronage behavior. Consequently, authors Backman and Crompton (1991a) conceptualized consumer loyalty as a combination of psychological attachment and behavioral consistency. Comparing the two loyalty paradigms, the behavioral measure for each study is essentially the same, behavioral frequency. However, the attitudinal measures employed in each study differed. Dick and Basu proposed that relative attitude best describes the attitudinal dimension of loyalty, while Backman and Crompton suggested that psychological commitment is the proper means for measuring attitudinal loyalty.

Since these initial forms of inquiry, numerous attitudinal and psychological commitment measures have been developed. However, due to the unique characteristics of attitudes as a directly non-observable variable, nearly all attitude strength measures have been scrutinized with respect to its theoretical validity (Pritchard et al., 1999). Consequently, it became popular among researchers to attribute and measure the attitudinal component of loyalty with the construct of psychological commitment (Backman & Crompton, 1991a; Iwasaki & Havitz, 2004; Mahony et al., 2000; Pritchard, 1991; Pritchard et al., 1999). Defined initially as a decision-making process that results in the tendency or unwillingness to change one's preference, psychological commitment has evolved into a heavily researched area in the fields sport and leisure. Given its contextual significance, the following section reviews the evolution of psychological commitment as it represents the attitudinal component of sport fan loyalty.

*Psychological commitment.* According to previous consumer behavior research, psychological commitment is defined many ways. It has been defined as an individual's: attitude strength (Robertson, 1976), "tendency to resist change in preference in response

to conflicting information or experience” (p. 414, Crosby & Taylor, 1983), and attachment to an object that results recurring behavior and infers “a rejection of alternative behaviors” (p. 403, Buchanan, 1985).

In an attempt to empirically link commitment and loyalty, Pritchard (1991) developed one of the first psychological commitment instruments (PCI) based on hotel customers, golfers, and airline patrons. The author used past commitment scales and Churchill’s (1979) framework for developing effective measurement constructs in an attempt to capture the multidimensional nature of psychological commitment. All told, Pritchard developed a valid and reliable scoring construct represented by the following three factors: resistance to change, volitional choice, and cognitive complexity.

A few years later, James (1997) validated Pritchard’s work by finding the same three dimensions (cognitive complexity, volitional choice, and resistance to change) comprised his measurement of psychological commitment in sports fans. Also drawn from Pritchard’s (1991) initial work, Gahwiler and Havitz (1998) examined psychological commitment, but added and validated a fourth dimension – position involvement. Stemming from Freedman’s (1964) work, the authors believed that before the cognitive process begins in a loyal consumer, the individual takes a personal stance with regard to the product or service. This stance, or position, is the interaction between a consumer’s personal preference and personal values.

In 1999, researchers Pritchard et al. developed a psychological commitment instrument that was the culmination of previous attitudinal loyalty research (Gahwiler & Havitz, 1998; James, 1997; Pritchard, 1991). Through further examination into the complex cognitive process, the researchers reclassified the resistance to change factor as

a combination of cognitive consistency and confidence. All told, the authors derived a five dimensional construct in which “a consumer’s commitment is determined by a complex structure in which their resistance to change is maximized by the extent to which they identify with important values and self-images associated with the preference, are motivated to seek informational complexity and consistency in the cognitive schema behind their preference, and are able to freely initiate choices that meaningful” (p. 344).

*Psychological commitment to team.* Mahony et al. (2000) looked to extend the conclusive work of Pritchard et al. (1999) and introduce psychological commitment to spectator sport consumption. In doing so, the authors developed the Psychological Commitment to Team (PCT) scale. The authors followed the four-phase scale development procedure proposed by Churchill (1979) and developed the PCT scale with 14 items. The scale specifically emphasized the resistance of changing preference toward a particular professional sport team. Much debate, however, resulted from this model. Researchers have attacked the scale’s poor construct validity and unidimensional nature (Kwon & Armstrong, 2004; Kwon & Trail, 2003). In 2004, in an attempt to add dimensionality, Kwon and Armstrong developed a three-component psychological commitment scale toward an intercollegiate athletic team. This model was represented by three factors: team identification, team commitment, and school identification, but according to the authors and Ha (2005), the instrument lacked the validation of a rigorous confirmatory evaluation.

In 2000, Funk and Pastore developed a scale to measure loyalty toward an athletic team from the consumer perspective. The aim of the inquiry was to “examine the usefulness and predictive validity of attitudinal information in segmenting consumer



loyalty” (p. 177). The resulting scale was comprised of ten items to measure behavioral and commitment aspects of sport spectators in order to segment fans into high-, moderate- and non-loyal groups. Once again, researchers scrutinized the instrument’s validity due to the fact it encompassed several convoluted concepts in addition to attitudinal loyalty, including behavioral loyalty, identity, self-categorization, and personality (Heere & Dickson, 2008).

*Attitudinal loyalty to team.* Recently, heeding the suggestions of Kwon and Trail (2003), researchers Heere and Dickson (2008) proposed separating the terms commitment and loyalty in order to successfully construct a valid and reliable one-dimensional scale to measure the attitudinal dimension of loyalty. The authors defined commitment as “a psychological state internal to the individual, which is the result of an initial attraction process” (p. 228), and classified attitudinal loyalty as “the construct that measures the willingness of individuals to maintain their commitment to the team” (p. 229). In all, the authors termed attitudinal loyalty to be a guide to behavior stemming from the interaction between negative external factors and an individual’s highly-developed attitudes toward a team. The resulting Attitudinal Loyalty to Team Scale (ALTS) streamlined the previous association work of Gladden and Funk (2002), the attitudinal results of Funk and Pastore (2000), and psychological commitment findings of Mahony et al. (2000) and arrived at a valid and reliable scale that adequately represents attitudinal loyalty.

In summary, fan loyalty is a two-dimensional construct that represents both fan attitudes and behaviors. Due to the unpredictable nature of sports where half of the teams are guaranteed to lose, developing loyal consumers is paramount. While behavioral

frequency has been unanimously viewed as the best measure of behavioral loyalty, several researchers consider the concept of psychological commitment to most appropriately measure the attitudinal dimension of loyalty (Day, 1969; Jacoby & Chestnut, 1978). With that said, given the uniqueness of sport, the instrument that most adequately assesses the psychological commitment of a sport fan is Heere and Dickson's (2008) ALTS. Therefore, the current study utilized this measure.

Previous literature has concluded strategies that increase attitudinal loyalty in fans result in maintaining or increasing sport consumption (Funk & James, 2001; Funk & Pastore, 2000; James, 1997; Mahony et al., 2000). Lately, the relationship between this construct and consumer involvement has become critical in predicting consumer behavior (Iwaski & Havitz, 1998; Park, 1996). For instance, Park concluded that the concepts of involvement and attitudinal loyalty are distinct but highly intercorrelated, and in terms of guiding behavioral loyalty, involvement explains short-term usage while attitudinal loyalty describes long-term practice. Furthermore, the author suggested that future investigation into the relationship of these two constructs "would be a fruitful line of research" (p. 247).

With regard to the current study, fantasy sports participation provides traditional sports fans with an opportunity to own and manage a heterogeneous group of individual players. This ownership translates into a level of attachment to these players. This unique attitude toward individual players has the potential to alter the participant's traditional, singular loyalty to their favorite team. Given this potential, the investigation of a fantasy participant's attitudinal loyalty toward their favorite team is warranted. Furthermore, an investigation into a participant's level of fantasy team involvement will help sport

marketers segment and differentiate fantasy sports consumers in order to properly package and deliver their sport and media products associated with the hobby.

### *Consumer Involvement*

The concept of involvement has evolved considerably since the 1960s. Derived from social judgment theory, it is now heavily-utilized in both consumer behavior and leisure research to help understand purchase behavior of consumer goods and services (Sherif & Hoveland, 1961). Specifically, consumer involvement has been used to understand consumers' behavior relating to objects (Laurent & Kapferer, 1985; Zaichkowsky, 1986). In addition, involvement research has contrasted different levels of consumer involvement (i.e., high & low), and studied its effect on decision making, information gathering, and information sources (Bienstock & Stafford, 2006).

In 1985, Zaichkowsky developed the Personal Involvement Inventory (PII) to measure product involvement. Tests of construct validity over three products demonstrated the scores were positively related to perceptions of brand differences, brand preferences, interest in gathering information about the product category, and comparison of product attributes among brands (Zaichkowsky, 1985). The author specifically identified three antecedents of involvement: characteristics of the person, characteristics of the product, and characteristics of the situation. These factors trigger different types of involvement (product, purchase decision, and advertising) that can produce differing results or consequences. In 1994, however, Zaichkowsky simplified and updated the PII to eliminate item redundancy. The resulting scale was reduced to ten total items with two dimensions. Referring to reasoning or intellectual activity, the *cognitive* dimension is made up of the following five items: Importance, Relevance, Value, Means a lot to me,

and Need. Accounting for feelings and emotions of the consumer, the *affective* dimension consists of Interest, Appeal, Fascination, Excitement, and Involvement. Overall, the application of the scale to marketing and advertising samples resulted in strong scores that were both reliable and valid.

Laurent and Kapferer (1985) also conceptualized involvement as a multidimensional construct. The authors derived five antecedents of product involvement including: the perceived importance of a product, the perceived importance of negative consequences from a mispurchase, the subjective probability of a mispurchase, the pleasure value of the product, and the perceived sign or symbolic value of the product. Martin (1998), however, approached the consumer-product relationship from the product's side of the spectrum, noting that products are more controllable than consumers. The study identified and differentiated between low involvement and high involvement products, and provided strategies for marketers to attract or create highly involved consumers (Martin).

*Sport and leisure involvement.* Rothschild (1984) defined psychological involvement as a state of motivation, arousal, or interest with regard to a product, an activity, or an object. Using this definition as a guide, leisure experts defined leisure involvement as “an unobservable state of motivation, arousal, or interest toward a recreational activity or associate product that is evoked by a particular stimulus or situation that possess drive properties” (p. 260, Iwaski & Havitz, 1998).

The extension of involvement theory to sport spectators has become more prevalent (Funk & James, 2001; Funk et al., 2004; Kerstetter & Kovich, 1997). In terms of understanding sport spectator motives, it has been determined that the involvement

construct plays an important role (Funk et al.). Kerstetter and Kovich extended the work of Laurent and Kapferer (1985) and determined that only two facets applied to women's basketball spectators: enjoyment and sign value.

Funk et al. (2004) developed a multidimensional measure specifically for sport spectators called the Team Sport Involvement (TSI) scale. Following a comprehensive literature review, the authors conducted a four-step procedure to develop and validate a conceptual model for examining involvement with a professional sport team. The resulting TSI was comprised of 18 antecedents and four involvement facets: attraction, centrality, risk, and self expression. According to the authors, the findings "reflect situational stimuli learned through sport spectating that evoke pleasure, satisfaction, and happiness not unlike a trip to the movies or amusement park" (p. 53).

*Service involvement.* In 1999, Celuch and Taylor extended Zaichkowsky's (1994) PII to the service industry. At that point, the PII had been appropriately applied to products, advertisements, and purchases, but there was limited investigation in relation to services. Therefore, in an effort to validate the scale within the service industry, the authors replicated the PII across multiple service industries. Similar to Zaichkowsky's findings, the modified instrument captured both cognitive and affective factors identified in previous research. However, the results indicated the need for further instrument reduction. Therefore, an eight item version of the PII inventory was deemed most appropriate. The *affective* dimensional items included Excitement, Appeal, and Fascination. The *cognitive* dimensional items were Need, Importance, Relevance, Means A Lot, and Value. Ironically, dropping the "Involvement" item improved the model fit in

relation to the service industries examined. Despite the refinement, the instrument provided valid and reliable scores across the service settings examined.

Bienstock and Stafford (2006) also extended Zaichkowsky's (1985; 1994) research to the service sector. Similar with Celuch and Taylor (1999), Bienstock and Stafford's research aimed to examine the PII scale across a wide range of service settings. Specifically, the authors sought further validation of the dimensional structure of involvement within the service industry. Six service industries were selected for examination (auto repair, maid service, banking, restaurant service, dental service, and hairstyling), and participants were asked to self-report their involvement with these services using Zaichkowsky's PII. Once again, the results indicated consistency in Zaichkowsky's PII across a variety of service industries. The two dimensional involvement structure (affective & cognitive) was evident in all six services examined. However, the "Involvement" item was once again deleted in four of the six services. In addition, the items that made up each dimension varied between each particular service industry. All told, the authors concluded that Zaichkowsky's PII was a valid and reliable means for segmenting and differentiating consumers based on their level of involvement with a given service.

In conclusion, the level of involvement has been shown to be an important consumer indicator in the fields of marketing, advertising, and leisure behavior. Zaichkowsky's (1994) PII has been useful in both the product and service industries. In addition, recent research in the area of sport spectators has provided utility of the involvement construct to better understand consumer motives in a diverse and competitive sport industry (Funk et al., 2004). However, there is limited research on

involvement with an ancillary sport service such as fantasy sports. In-depth information regarding a sport consumer's level of fantasy football involvement will aid sport marketers in their understanding of the media-dominant sport fan. Furthermore, determining demographic and social variables that predict fantasy involvement levels will help practitioners properly segment the market and foster increased sport consumption.

### The Fantasy Sports Phenomenon

Introduced nearly 50 years ago as an activity for the statistically-minded sports fan, fantasy sports began as a diminutive enterprise. Fueled by extremely loyal and highly-engaged consumers, however, it grew gradually until the mid-to-late 1990's where it exploded into popular culture. Now, the fantasy sports industry is estimated to have a total market impact of \$4.48 billion dollars; this includes more than \$800 million spent directly on fantasy sports products, and an additional \$3 billion worth of media products related to the hobby (FSTA, 2008c). The business of fantasy sports is clearly booming with more than 29.9 million Americans and Canadians participating in some kind of fantasy sports league (FSTA, 2008c). Further, a recent Pew Internet and American Life study (2005) found that one in every twelve Internet users play some kind of fantasy sport.

Also known as Rotisserie and Fanalytics, fantasy sports is a game in which participants act as general managers or owners of their own sports team. It is completely customizable, interactive, and involves nearly every major professional sport from football to bass fishing. Fantasy sports is primarily an online service that allows fans to simultaneously follow their favorite sports and actively compete and interact with family, friends, acquaintances, or even strangers based upon real-world professional athlete

statistics (FSTA, 2008a; Levy, 2005). Typically, participants compete weekly against other fantasy team owners in a league-style format.

The advent of fantasy sports has seemingly created a new role for the traditional sports fan (Shipman, 2001). Instead of passively spectating, the fantasy participant is given the opportunity to actively engage in operations similar with those that occur in a professional sports team's front office. For most sport fans, it is the closest way to participate in professional sports without actually putting on a uniform and competing. This unique nature generates additional motives for sport fans to consume professional sport. Specifically, recent studies have found the following participant motivations: arousal, escape, social interaction, competition, entertainment, gambling, vicarious experience, and enhanced involvement (Cooper, 2005; Farquhar & Meeds, 2007). Achieving these psycho-social needs through fantasy participation has led to individuals partaking in several leagues during a single season and throughout the year. Due to this habitual commitment, fantasy sport has emerged as an easy, cost-effective means of reaching an engaged and loyal group of consumers (Leporini, 2006).

Given its popularity and distinct nature, fantasy sports has the opportunity to alter the current sport fan continuum. This section provides a comprehensive literature review of academic studies examining the phenomenon of fantasy sports as well as look at the future trends of this emerging industry. In addition, this segment highlights opportunities produced by a vastly-evolving sport media landscape and concludes with future considerations for academicians and practitioners alike.

### *Scholarly Literature*

Unfortunately, the scholarly literature in the area of fantasy sports is limited (Lomax, 2006). Previous studies examined gambling concerns associated with fantasy



sports, masculinity issues, and communication (Bernhard & Eade, 2005; Davis & Duncan, 2006; Shipman, 2001). Recently, however, researchers Drayer et al. (in press) explored the consumption habits of fantasy football participants and observed an increased allegiance to players, a changed media consumption behavior, and a newfound Sunday experience. Each study is discussed individually in the following section.

*Fantasy sports as a form of gambling.* Bernhard and Eade (2005) explored the similarities between traditional sports gambling and fantasy sports participation. Specifically, the authors concentrated on fantasy baseball; however, their findings can be applied to any fantasy sport. From an economic point of view, the authors contend the two activities have several similarities including an initial investment to participate and the potential to win money. Additionally, comparisons were drawn between the amount research performed by participants and the value of luck versus skill in both ventures. Altogether, Bernhard and Eade provided a preliminary investigation into the positive and negative aspects of fantasy baseball in comparison with other forms of gambling. While they contend that the two cultures are similar, they conclude fantasy sports participants do not exhibit the serious forms of pathological gamblers, and therefore, are more like “gambling’s cousin, the stock market” (p. 35).

Similar with Bernhard and Eade’s (2005) inference, the judicial system has formally determined fantasy sports is a game of skill that is legal under state and federal law (Boswell, 2008). Despite strengthening restrictions on other forms of Internet gambling in 2006, Section 5362(E) (ix) of the Gambling Enforcement Act, as summarized by Boswell (2008), exempts participation in any fantasy or simulation sports game. On the state level, if a fantasy sports gambling allegation arose, the dominant

factor test would be instituted to determine whether the activity is predominantly chance or skill. Based on past policy decisions and legal precedent, Boswell (2008) believes the positive externalities far out-weigh the negative; therefore, fantasy sports participation would be viewed as skill and not a form of illegal gambling.

*Masculinity and fantasy sports.* Researchers Davis and Duncan (2006) examined the social processes of fantasy sports from a pro-feminist stance. Methodologically, the authors used a multi-faceted qualitative approach including observations of the behaviors of fantasy sports participants, a textual analysis of a popular fantasy sports website, and interviews from a participant focus group. The results indicated, “fantasy sport leagues facilitate reinforcement of hegemonic ideologies in the spectatorship of sports” (p. 260). Specifically, the authors extended the following characteristics of fantasy sport participation that allow for masculinity reinforcement: control, authority, importance of sport knowledge, competition and bonding. Overall, Davis and Duncan conclude that fantasy sport leagues have become another medium for men to practice masculinity.

In another sociological look at fantasy sports participants, Levy (2005) examined the engagement of a specific group of male fantasy baseball players through the working relationship of sport, masculinity, and the construction and use of knowledge. The author implemented a mixed-methodology of qualitative and quantitative genres, and used a fantasy baseball league as the research setting. The results the in-depth interviews and participant observations built the theory of sport fanship habitus. Sport fanship habitus refers to the centrality of sport to the lives of white, middle-class, middle-aged American men. The author also investigated the influence of habitus on the lives of the participants and others through practices, cognitive structures, and predispositions. According to

Levy, while the phenomenon of fantasy sports is used as a vehicle to provide optimal interaction and observation with traditional sports fans, the unintended consequences of this activity provided enlightening outcomes in terms of maintaining relationships and building new social communities.

*Fantasy sports and communication.* After establishing the history and computerization of fantasy sports, Shipman (2001) specifically looked at “fantasy sports as an example of the blending of traditional and digital culture” (p. 2). The author determined the explosion of fantasy sports has introduced a new, highly-connected consumer that craves interactivity and real-time information combined with the traditional, old-fashioned spectatorship associated with professional sport. In addition, Shipman believes fantasy sports participants are more engaged sport spectators than traditional fans. Based on the concepts of player control and virtual-world action, the author proposed that a framework blending real and online action will create opportunities for more engaging and immersive forms of entertainment. Consequently, the future of fantasy sports appears prosperous, as technological advances will continue to attract consumers looking for control, escape, participation, and competition.

More recently, in an attempt to determine types of online fantasy sports players based on motivational factors, Farquhar and Meeds (2006) identified a set of common underlying dimensions of motivations for fantasy sport league participation derived from motives associated with sports consumption (Milne & McDonald, 1999; Trail & James, 2001; Wann, 1995) and Internet usage (Althaus & Tewksbury, 2000; Leung, 2001; Papacharissi & Rubin, 2000; Rubin, 1981). Employing a Q-Methodology, the study found the following five primary motives for fantasy sports participation: surveillance,

arousal, entertainment, escape, and social interaction. Further, the study indicated that two perceived gratifications of participating in fantasy sports, arousal and surveillance, led to differences among fantasy sport users. The primary difference between the two groups was the way they viewed the game of fantasy sports. Individuals driven by surveillance, or the need for statistical information, believed fantasy sports was a game of skill, while those driven by arousal, or the need to compete, saw it as a game of chance. According to the researchers, highly-involved participants believe they “get more out of fantasy sports when they put in more time and money” (Farquhar & Meeds, p. 1217).

*Consumer behavior and fantasy sports.* Recently, researchers Drayer et al. (in press) investigated the consumption habits of fantasy football participants with regard to NFL products and services. Particularly, the study provided a preliminary investigation into the changing consumption patterns of fantasy football league players through the use of a theoretical framework established by researchers Fazio et al. (1983). In doing so, the authors observed an increased allegiance to players through fantasy ownership, increased media consumption, and a newfound Sunday experience. In summary, this study provided practical implications such as future marketing and endorsement possibilities as well as theoretical implications involving sport consumption.

Since 2003, researcher Kim Beason, under propriety of the Fantasy Sports Trade Association (FSTA), has conducted a consumer spending analysis of fantasy sports products and services. Using a random sample of 525 fantasy sport participants, Beason found that, in 2007, the average participant spends over \$100 to play fantasy sports (FSTA, 2008a). This total includes, but is not limited to entry fees, computer software, league commissioner services, transaction fees, printed magazines, draft kits, online

updates, and roster predictions (FSTA, 2008a). Most notably, of the nearly 1,500 participants surveyed since 2003, not one participant indicated playing completely free (FSTA, 2008a). This is indicative of the significant economic possibilities fostered through fantasy sports participation.

### *Fantasy Sports Industry Trends*

In addition to consumer behavior research, Beason, again under propriety of the FSTA, conducted a trend analysis of the fantasy sports industry. Using a separate sample of 557 randomly chosen subjects from eight FSTA constituents, Beason analyzed important trends in the industry including, participation growth and drop-out rates, demographic trends, and consumer behavior trends (FSTA, 2008b).

According to the FSTA (2008b), vertical growth among fantasy football consumers is maturing; however, drop-out rates remain very low (3.4%). Interestingly, fantasy football is reported as the portal for the entire fantasy industry (FSTA, 2008b). Therefore, as the growth of football is steadily maturing, the growth of the other sports, such as baseball, basketball, hockey, NASCAR, and golf is growing rapidly. For instance, fantasy NASCAR has seen an unprecedented 18% increase in participation since 2004 (FSTA, 2008b).

Furthermore, the average fantasy sport participant continues to represent corporate America's most highly-coveted demographic. The average fantasy sports consumer is a 38-year-old, Caucasian, American, male with a Bachelor's Degree and an annual household income of \$75,000 (FSTA, 2008b). In addition, the average fantasy sports participant has over eight years of experience playing fantasy football or baseball and spends an average of 45 minutes per day thinking of fantasy sports (FSTA, 2008b).

Along with that, in 2007, the FSTA (2008b) determined the average participant owned more fantasy teams (2% increase), watched more fantasy TV shows (6% increase), and increased the amount of time checking fantasy teams at work (7% increase). In sum, according to the FSTA (2008b), the fantasy sports industry continues to thrive, and as technology advances and drop-out rates remain minimal, it appears the potential for future growth is inevitable.

*Fantasy sports and mass media.* Though fantasy sports are linked with real-world athletes, fantasy participation resides primarily in a virtual world, specifically, the Internet. Real-time scoring, blogs, message boards, and a host of other interactive capabilities lure fantasy sports fans online each day. Despite a recent surge in online sport consumption and interactive media (Boyle & Haynes, 2003; Seo & Green, 2008), the most significant source of mediated sport has been via the television (Eitzen & Sage, 2003), and many fantasy football players rely on a range of offline sources to enhance the fantasy sport experience (Russo & Walker, 2006). As a result, the potential to leverage fantasy football into a significant marketing tool both online and offline currently exists (Russo & Walker). In addition, corporate sponsors may also have a stake in the future of fantasy sports as former NFL digital chief and current Fantasy Sports Ventures CEO, Chris Russo, is attempting to move fantasy sports from a media sales proposition to a sponsorship vehicle by adding premium promotions such as draft events, custom games, and fantasy guides (Lefton, 2007).

Many believe fantasy sports' greatest transformation will involve the development of products and services that extend beyond the online game. For example, a study conducted by CR Media Ventures and Players Inc., summarized by Russo and

Walker (2006), found significant results involving the interaction of television viewing and fantasy football participation. The rapid growth in fantasy sports has already been credited with causing the soaring popularity of several television endeavors such as Fox NFL Sunday, ESPN's Baseball Tonight, and DirecTV Sunday Ticket (Ballard, 2004). In addition, fans around the world are watching the NFL more intently than ever, and the continued growth of fantasy football translates into very real advertising and merchandising dollars for the league (Yost, 2006). New programs, premium tiers, surprisingly robust online business, and upscale audiences are just a few of the possible benefits.

As an example of this accommodation, DIRECTV, an NFL partner, offers a premium tier of NFL coverage with interactive and time-altering technology designed to enhance the viewing experience of subscribers (Broadcast Engineering, 2005). Called NFL Sunday Ticket SuperFan, the package delivers a mix of interactive features, including control over eight games per screen, a Red Zone highlight channel, Player Tracker, the ability to view a whole game in 30 minutes, and High Definition broadcasts (Broadcast Engineering). According to David Feldstein, senior project manager of DIRECTV interactive services (as summarized in Lafayette, 2006), the feature creates a single-screen experience from what was previously available only by watching a TV and a laptop simultaneously. Last year, DIRECTV NFL Sunday Ticket had over 2 million subscribers (Fisher & Ourand, 2007).

While it seems the logical convergence of television and Internet technologies will further enhance the fantasy sports experience, Weinstien proposed in his 2006 article that the behavior of fantasy sports participants has already led to the several joint efforts

on behalf of media companies to appease unique demands of this population. For instance, TiVo, a popular digital video recording company, announced a merger with CBS SportsLine, a heavyweight fantasy sports provider, in the fall of 2006 to provide customized on-demand fantasy sports information directly to a user's remote control. Yahoo! Sports also announced a partnership with Intel's home entertainment product, Viiv, to attempt to eliminate a fantasy player's reliance on both laptop and television technologies.

Given this recent explosion of fantasy content, academic researchers are now beginning to investigate the relationship between fantasy sports and the media. For instance, Woodward (2005) detailed the adoption process of mass media providers in offering fantasy sports content on websites, television, radio and newspapers. After providing a comprehensive history of the fantasy sports, the author used a qualitative approach to examine seven categories of mass media evolution: awareness, interest, testing, adoption, use, benefits, and future projections. After implementing Rogers' diffusion of innovation theory to examine the rapid growth of fantasy sports, the results indicated that mass media quickly understood the profit potential of fantasy sports content, and in turn, highly-publicized the activity. Ultimately, this catalyzed fantasy sports diffusion and made it extremely popular in American culture (Woodward). Finally, the author stipulated that the Internet is the best venue for fantasy sports and related content, and on the diffusion scale, fantasy sports is currently in the early majority stage.

Similarly, Comeau (2007) looked at the uses and gratifications of media by fantasy football participants. Specifically, the study examined participants in a fantasy football league and compared their uses and gratifications of the media with that of



similar fans not participating in these leagues. The results of this study indicated that fantasy football participation was a significant predictor of television, radio, and Internet use. Furthermore, users exhibited more involvement with mass media outlets and received the following gratifications from participation: eustress, self-esteem, knowledge, and group affiliation. All told, the author provided preliminary results to support the inclination that fantasy participation increases an individual's need for sport-related media (Comeau). For instance, while the study did not attempt to provide a causal relationship, the results suggest that fantasy participation is increasing the involvement levels of NFL fans with respect to media usage.

### Conclusion

Despite the immense popularity of fantasy sports, there is limited information regarding the consumer behavior of fantasy participants. However, previous research in the areas of sport consumption and sport consumer behavior has underscored the importance of understanding the psychological, sociological, and behavioral intentions of the media-dominant sport fan (Pritchard & Funk, 2006). Specifically, the constructs of consumer involvement and loyalty have been proven to assist marketing segmentation strategies (Backman & Crompton, 1991a; 1991b; Funk et al., 2004; Park, 1996; Pritchard et al., 1999), yet the application to these theories to a population of fantasy sports participants has not been attempted.

As technology continues to advance, there will be increased opportunities for sports fans to consume sport, and given the importance of continually identifying, attracting, and retaining large audiences, there will be an enhanced need to understand sport consumer behavior. Furthermore, consumers are continually battling discretionary

resources (i.e., time & money), and the result is a highly-unstable sport marketplace.

Therefore, a comprehensive look at an important segment of elusive sports fans does not only provide a significant contribution to the field but also aid sport marketing practitioners in the packaging and delivering of sport products.

### CHAPTER III

#### METHODOLOGY

The primary purpose of this study was to examine the relationship between fantasy sports participation and intentions to watch televised NFL games. Traditionally, professional sports in the US have garnered team-centric attitudes and behaviors; however, fantasy sports participation is a unique pastime that has the potential to realign a participant's interests to individual players on several different teams. Therefore, this study investigated the attitudes and behavioral intentions of fantasy football participants in order to gain an improved understanding of the fantasy sports phenomenon.

Previous sport consumer research has established that the intention to watch televised broadcasts is a representative variable explaining a consumer's attitude toward a sport object (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000). However, the impact of fantasy sports participation with respect to this behavior has yet to be examined. Further, the relationship between the two fundamental concepts of consumer involvement and fan loyalty is also unknown. In all, fantasy football participants were surveyed to understand their perceptions of these theoretical concepts as well as discover additional explanatory variables that determine varying levels of fantasy football involvement.

The methodology employed in the present study is organized into four sections: (1) sample, (2) instrumentation, (3) design and procedures, and (4) statistical techniques

and data analysis. The first section includes information about the target population, sample design, and sample size. Next, the instrumentation portion covers the selection of variables and constructs used to explain the consumer behavior of fantasy football participants. In addition, a description of each scale selected including the validity and reliability of scores from previous applications is covered. The design and procedures portion discusses the method for organizing the variables and the process of data collection. Finally, the statistical techniques and data analysis section includes the description of systems and procedures utilized to answer the formulated research questions and hypotheses.

## Sample

### *Population*

The target population for the present study was individual fantasy football participants over the age of 18 whom actively participate in fantasy football. The age restriction was to ensure the participants' comprehension of the survey items. Fantasy football was selected as the activity of choice due to its enormous popularity and its status as the gateway activity to other fantasy sports (FSTA, 2008a).

For purposes of this study, fantasy football participants were selected randomly from a pool of FSTA member constituents. The FSTA represents more than 125 member companies in the fantasy sports industry. The current estimate of FSTA membership is between five and seven million participants. This population was selected for two reasons. First, the demographic characteristics of FSTA members are representative of the target population (FSTA, 2008c), and second, the FSTA is proactively committed to research and openly provided the e-mail addresses of their respective customers.

### *Sample Design*

In order to refine the FSTA membership into a workable survey population, a sampling frame was instituted. According to Dillman (2000) a sampling frame is, “the list from which the sample is to be drawn in order to represent the survey population” (p.196). The sampling frame for this study was fantasy football participants over the age of 18 from FSTA member constituents based on e-mail addresses available in the FSTA database. A fantasy football participant was defined as any individual who concurrently participated in the activity. Due to the size of the target population, not all participants who meet the eligibility requirements and have e-mail addresses were invited to participate in the study. Instead, 1,600 potential respondents were randomly selected out of a pool of 5,000 FSTA member constituents.

### *Sample Size*

The sample size for this study was determined by three of the statistical procedures implemented. Specifically, logistic regression analysis, exploratory factor analysis, and the dichotomizing of one variable required certain sample sizes in order to provide powerful results. Each procedural requirement is outlined below followed by the estimated minimum sample size required for this study.

Logistic regression is often used because it does not have the strict assumptions that accompany traditional (ordinary least squares) regression. However, logistic regression is sensitive to sample size. For instance, unlike ordinary least squares regression, logistic regression uses maximum likelihood estimation rather than ordinary least squares to derive parameters (Hosmer & Lemeshow, 2000). Maximum likelihood estimation relies on large-sample asymptotic normality which means that reliability of estimates decline when there are few cases for each observed combination of independent

variables (Menard, 2002). That is, small samples may accumulate high standard errors, and if there are too few responses in relation to the number of variables, it may be impossible to converge on a solution. As a rule of thumb, Green (1991) recommended a sample size for regression analysis should equal  $N \geq 50 + 8m$ , where  $m$  is the total number of predictor variables in the model. This study examined nine predictor variables in the logistic regression analysis; therefore, a sample size of at least 122 ( $50 + 8[9]$ ) participants was advised.

In addition, according to Tabachnick and Fidell (2007), the reliability of correlation coefficient scores, which drive factor analysis, are dependent upon sample size. Therefore, sample size was also be determined by the requirements needed for exploratory factor analysis (EFA). In general, previous research has suggested that the larger number of items analyzed, the more subjects should be used in the analysis. While no specific percentage of a population has ever been proven to provide quality factor patterns for all indices (MacCallum, Widaman, Zhang, & Hong, 1999), larger samples increase the generalizability and communality of the conclusions reached through EFA (DeVellis, 1991). In fact, as a standard rule of thumb, authorities recommend a sample size of five respondents per item within an instrument (Bryman & Cramer, 1997). The largest scale in the current study is eight items and therefore, a sample size of at least 40 respondents is suggested.

In addition to the logistic regression and EFA size requirements, the sample underwent a dichotomizing procedure in which half of the responses were removed to eliminate respondents who were relatively neutral with regard to fantasy football

involvement. Therefore, in order to suffice all three procedures, a minimum of 244 respondents were required to complete the analyses prescribed for this inquiry.

Research in the social sciences has shown that the response rate for web-based surveys typically ranges from 15% to 73%, depending on the means of communication, incentive structure, and the visibility of the survey (Birnholtz, Horn, Finholt, & Bae, 2004; Gosling, Vazire, Srivastava, & John, 2004; Krantz & Dalal, 2000). Previous survey research that has specifically solicited fantasy sports users as participants has yielded response rates ranging from 24% to 42% (FSTA, 2008a; 2008b). Given the approximation of these response rates, the sample size requirements stated above, and adding a conservative “cushion” for missing data, 1,600 participants were contacted ( $\approx 244 / 15\%$ ).

#### Instrumentation

The survey used in this study contained six major parts with a total of 40 items: team/game preference (5 items), viewership intentions (8 items), fantasy football involvement (8 items), attitudinal loyalty to team (4 items), fantasy information (8 items), and demographics (7 items). Most of these scales were slightly-modified from previous studies in sport consumer behavior or consumer research in the service sector.

##### *Team/Game Preference Variables*

The present study examined the extent to which fantasy football participation relates to the intention to watch individual NFL teams and games via televised broadcast. Therefore, this group of variables measured the relevance of specific NFL teams based on either the fantasy football participant’s evaluative attitude of the team (positive, negative, or neutral) or the participant’s perceived relevance of the team with regard to fantasy

football. Specifically, respondents were asked to name their most liked and disliked NFL teams via a dropdown menu consisting of every NFL team. They were also asked to identify two teams about which they feel neutral. In addition to these four NFL teams, the respondents were requested to pinpoint a team not selected previously for which their remaining best fantasy football player played. Respondents who failed to identify either a favorite team or most disliked team were noted and removed from the sample. In all, a total of five independent NFL teams were selected by respondents based on attitudinal or fantasy-relevant factors.

#### *Viewership Intention Variables*

Predicting behavior is a fundamental goal of many consumer behaviorists, and the relationship between attitudes and behavior is often the key component to understanding a consumer's repeat purchasing behavior. With regard to this study, behavioral intentions were measured as the intermediate step between the attitude-behavior connection. Previous research suggests that two types of questionnaire variables relate best to behavior: (1) behavioral expectations and (2) behavioral intentions (Ajzen, 1985; Konerding, 2001; Shephard, Hartwick, & Warshaw, 1988).

In order to investigate a fantasy participant's behavioral intentions with regard to the NFL, a variable measuring intention to watch televised NFL games was interpreted. Specifically, respondents were asked how likely they would be to watch each team, self-selected by attitudinal preference or fantasy relevance, if that team were playing on television. This variable has been heavily-utilized within the sport marketing literature to assess the consistency between fan behavior and attitudes toward a sport object (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000). In addition, given the exclusivity



and importance of ESPN's Monday Night Football (MNF), two questions were asked regarding the respondents' intentions to watch this primetime event. Specifically, respondents were asked how likely they would be to watch a MNF contest between two neutral teams and then asked how likely they would be to watch the same MNF contest when their fantasy contest is dependent upon the game's outcome. A seven point Likert-type scale ranging from 1 (not at all likely) to 7 (extremely likely) was utilized, and the participants' mean score of each response was examined.

Lastly, given that fan loyalty is defined as a two-dimensional construct, an additional question was included to address a participant's behavioral loyalty with regard to their favorite NFL team. Specifically, the participants were asked how likely they would watch either their favorite NFL team or the NFL team with their best fantasy player if both games were on concurrently but on different channels. This question was added to compare the attitudinal component of loyalty with the behavioral aspect while also potentially predicting involvement level.

#### *Fantasy Football Involvement Variable*

This motivational variable reflects the extent of personal relevance towards fantasy football based on the inherent needs and interests of the individual. The level of involvement for consumers has been shown to affect attitudes towards products, services, and purchase decisions (Zaichkowsky, 1994). Given the unique interactive nature of fantasy sports, it is vital to understand the impact of fantasy football involvement on behavioral intentions to watch televised NFL games. As a result, Celuch and Taylor's (1999) modification of the Zaichkowsky PII was used to measure the level of fantasy football involvement by individual fantasy football participants.

The PII has shown consistent psychometric results with products (Zaichkowsky, 1994) and services (Bienstock & Stafford, 2006). For instance, authors Beinstock and Stafford applied the instrument across four divergent consumer services and found scores were internally consistent (with Cronbach's alphas ranging from .89 to .91) and contained adequate factorial validity (average Confirmatory Factor Analyses [CFA] model fit indices were RMSEA = .07, NFI = .97, CFI = .98, IFI = .99, and  $\chi^2/df = 1.98$ ) based on a sample of 309 consumers. The scale, however, was reduced from 10 to 8 total items with two dimensions. Referring to reasoning or intellectual activity, the *cognitive* dimension is made up of the following four items: Importance, Relevance, Means a lot to me, and Need. Accounting for feelings and emotions of the consumer, the *affective* dimension consists of the following four additional items: Interest, Appeal, Fascination, and Excitement. The 8-item inventory was chosen due to its simplicity and tendency to reveal less response bias. A 7-point semantic differential scale was used. The mean of all responses for each participant were examined. A sample item from the PII is:

*To me, fantasy football is...*

*Important    1.....2.....3.....4.....5.....6.....7    Unimportant*

For the purposes of this study, the fantasy football involvement variable underwent a dichotomizing procedure. Previous research has frequently used this method to eliminate respondents who are relatively neutral on the independent variable (Darley & Lim, 1992; Haugtvedt, Petty, & Cacioppo, 1992; Mahony & Moorman, 1999). In addition, a majority of involvement research has contrasted different levels of consumer involvement (i.e., high & low), and studied its effect on decision making, information gathering, and information sources (Bienstock & Stafford, 2006). Therefore, total scores

for respondents in the top 25 percent and bottom 25 percent of involvement scale were kept for the involvement analysis while the middle 50 percent was discarded.

#### *Attitudinal Loyalty to Team Variable*

Heere and Dickson's (2008) Attitudinal Loyalty to Team Scale (ALTS) was developed to elicit reliable and valid scores on a unidimensional scale to measure the attitudinal component of fan loyalty. According to the authors, previous scales either lacked proper construct validity-related evidence or measured too many elements including affective commitment, affective loyalty, and behavioral loyalty. Therefore, the authors proposed the splitting of the terms commitment and loyalty, and developed a unidimensional scale that measures the interaction between negative external changes and an individual's internal psychological connection.

The resulting ALTS has produced valid (Average Variance Extracted [AVE] score of .614) and reliable (Cronbach's alpha reliability estimate of .878) scores based on a 303 undergraduate students. In addition, the psychometric analyses in the pilot examination for the current study revealed internal consistency (Cronbach's alpha reliability estimate of .849) for a sample of 116 fantasy football participants. However, due to perceived social desirability concerns that occurred during the pilot examination ( $M = 6.47$ ,  $SD = 0.97$ ), the austerity of the four ALTS items was softened to elicit great variability.

A 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree) was used with the four ALTS items to examine the participants' attitudinal loyalty to their favorite NFL team. The 7-point scale was chosen because it is consistent with other scales measuring fan loyalty (Heere & Dickson, 2008; Mahony et al., 2000). In all, according to

Heere and Dickson, the ALTS is “well suited to cross-sectional studies, particularly those involving multiple variables, because it is a comparatively succinct instrument that has good reliability and validity” (p. 237).

#### *Fantasy Information Variables*

In an attempt to understand specific characteristics related to each contributor, additional fantasy-specific information was also collected. The fantasy information items included: the amount of money spent by the respondents to participate in their most preferred fantasy football league, the number of years in which they have participated fantasy football, the number of friends, family, and/or co-workers participating against in their most preferred fantasy football league, the total number of fantasy football teams owned, the participants’ determination of the fantasy football as either a game of skill or game of luck, and the amount of money at stake in their most preferred fantasy football league. This information provides a better understanding of additional social factors and fantasy-specific characteristics that affect a participant’s attitudes and behaviors with regard to the NFL. Each item is operationally defined below:

*The amount of money spent to participate in their most preferred fantasy football league.* The ability to play fantasy football for free is available; however, there are several support products and services also available to make the game a costly endeavor. For instance, according to the FSTA (2008b), the average fantasy football player spent over \$100 per league to participate in 2007, and the list of products and services includes league entry fees, transaction fees, printed magazines, draft kits, computer software, commissioner services, and roster predictions. Given that the investment of resources is

often tied to involvement, this variable asked each participant to take in to account all money expended to participate in their most preferred league.

*The total number of years participated in fantasy football.* Given that years of experience tend to affect an individual's behavior, this variable requested respondents to recall the total number of years participated in any form of fantasy football.

*The number of friends, family, and/or co-workers participating against in their most preferred fantasy football league.* The ability to play in a fantasy football league with complete strangers is certainly possible. New leagues form consistently from the middle of June to the end of September. However, the FSTA (2008) estimates that 75 percent of participants compete against family, friends, or co-workers. In addition, researchers Farquhar and Meeds (2007) and Dwyer and Kim (in review) identified social interaction as a significant motivator for fantasy football participation. Therefore, this variable investigated the number of friends, family, and/or co-workers that the participant competes against in their most preferred fantasy football league.

*The total number of fantasy football teams owned.* Due to the prevalence of free fantasy football leagues, participants are able to compete in as many leagues as they see fit. Previous research has determined that the average participant owns three teams (Dwyer & Kim, in review; FSTA, 2008a). However, the process of monitoring each league and each player is difficult because the chance of owning a similar team in every league is nearly impossible. As a result, a participant in several leagues has an interest in several NFL players each weekend. Sometimes NFL players on one fantasy team are competing against NFL players on another. This puts the team owner in a strange predicament. In all, this study hypothesized that regardless of the number of teams

owned, a participant only has the ability to follow one league religiously, due to player overlap. Therefore, a participant's level of involvement is not related to the number of teams owned.

*The participant's determination of the fantasy football as either a game of skill or game of chance.* Despite legitimate comparisons with sports gambling, fantasy sports has recently received a Federal exemption from the Internet Gambling Enforcement Act (2006). Many legal commentators believe that exemption is the result of the classification of fantasy sports as being a game dominated by skill and not chance (Boswell, 2008; Holleman, 2006). These previous legal interpretations supported this legislation by citing the amount of research required and the lack of a point spread involved in fantasy sports. In addition, Farquhar and Meeds (2007) determined that the classification of chance or skill resulted in two different types of fantasy participants: those motivated by surveillance and those driven by arousal. Interestingly, the individuals motivated by surveillance tended to be more involved in fantasy sports as they believed they "got more out of fantasy sports when they put in more time and money" (p. 1217). Therefore, this variable simply asked respondents how much skill and/or chance they believe is part of fantasy football.

*The amount of money at stake in their most preferred fantasy football league.* As mentioned above, fantasy sports participation is exempt from Federal Internet gambling litigation. However, since its inception fantasy sports have been associated with sports gambling. While previous research, has determined that gambling is not a significant motivator for participation (Dwyer & Kim, 2008), the amount of money at stake may

cause a participant to be more involved. Therefore, this variable asked respondents how much money they stand to inherit if they win their most preferred fantasy football league.

### *Demographic Variables*

The demographic variables in this survey were used to better understand the general characteristics of fantasy football participating respondents. These questions requested a participant's gender, age, marital status, ethnicity, annual household income before taxes, education level, state in which they reside, and the amount of time spent per day on the Internet. Each item offered a variety of general choices for the respondent within each demographic variable.

## Design and Procedures

### *Design*

This study was nonexperimental and utilized a correlational research design to answer each research question. Correlational research designs are used to investigate relationships between variables. However, a unique advantage to using a correlational design is that it allows the researcher to measure the degree of the relationship between variables rather than whether the relationship exists (Gay, Mills, & Airasian, 2006). Correlational designs are used when the variables of interest are continuous as well as categorical.

With regard to the current study, each research question sought to examine the relationship between independent and dependent variables. Research questions Q1 and Q2 investigated the correlation between team preference and fantasy football involvement on intentions to watch televised NFL games. Research question Q3 explored the connection between fantasy football involvement and nine fantasy-related predictor

variables, and research question Q4 examined the relationship between fantasy football involvement and attitudinal loyalty to team. In all, given this study's focus on the relationship between the variables and the absence of an experimental manipulation of any of the variables, a correlational design was the most appropriate research design.

### *Procedures*

This study implemented a web-based survey protocol administered by Form Site ([www.formsite.com](http://www.formsite.com)). Web-based survey methodology employed by practitioners and academics continues to grow at a steady pace (Hanna, Weinberg, Dant, & Berger, 2005). Although research in this area is still evolving, commentators believe that technological advances in the area of survey research, namely web-based methods, have increased the overall coverage of potential participants and enhanced interaction with respondents by expanding the range of stimulus material used to attract them (Couper, 2005). Moreover, Internet use is universal, and the flexibility of web-based surveys has given researchers an easy, cost-effective method of reaching a larger number of individuals. With regard to this study, the activity of fantasy football resides primarily in a virtual world. According to the FSTA (2008), less than one percent of fantasy football players participated in an offline format in 2007. Therefore, employing a web-based survey methodology to reach this population was appropriate.

Data collection for this study took place from October 24 to November 30, 2008. This study received Institutional Review Board approval from the University of Northern Colorado prior to beginning the data collection process. Following Dillman's (2000) survey protocol, each selected participant received an introductory e-mail with an official notice describing the purpose of the study, contact information, anticipated time required



(approximately 10-15 minutes), a paragraph detailing the participant's informed consent, and ultimately, an embedded link to the survey. One e-mail was sent two weeks after the initial e-mail in order to increase the response rate.

## Statistical Techniques and Data Analysis

### *Statistical Techniques*

The following statistical techniques were conducted to answer the research questions in the present study: analysis of descriptive assessments, reliability analysis, exploratory factor analysis (EFA), two-way mixed design analysis of variance (ANOVA), multiple comparison analysis, logistic regression analysis, and *t* test analysis.

*Descriptive assessments.* In order to validate important assumptions about the data, an analysis of descriptive statistics was conducted on all variables prior to using any other statistical techniques. Descriptive statistics such as measures of distributional characteristics and frequencies allowed for better comprehension of the data, recognition of characteristics within variables, and identification of outliers or non-normal data (Huck, 2004). In addition, descriptive statistics helped identify the need for data transformation and any errors that occur in data conversion.

*Reliability analysis.* Reliability is also defined as consistency (Huck, 2004). The purpose of reliability is to measure the extent to which data collected through use of an instrument are consistent. There are three main ways that researchers estimate reliability. First, scale reliability in “which the degree to which items on the same test measure the same thing;” second, test-retest reliability, “which is the degree to which a test yields the similar results on several administrations or with parallel tests;” and finally, inter-rater reliability, “which is the degree to which multiple raters assign the same scores” (Nurušis,

2006, p. 423).

The current study was cross-sectional; therefore, it is a single observation of the survey respondents. Consequently, reliability was measured through an examination of the internal consistency of the multi-item variables (Tabachnick & Fidell, 2007). The internal consistency of a multi-item test was measured by the correlations between scores on the test. Scores from a scale were deemed reliable if items are highly correlated (Nurušis, 2006). Several methods can be utilized to estimate a scale's internal consistency, but this study employed interclass correlation coefficients, specifically Cronbach's alpha coefficient.

*Exploratory factor analysis.* Factor analysis is a statistical technique used to identify a fairly small number of factors that explain observed correlations among a larger group of variables (Nurušis, 2006). For instance, when researchers are interested in determining if any variables in a single set form sub-dimensions that are independent of one another, a factor analysis is conducted (Tabachnick & Fidell, 2007). It is not required for the researcher to have expectations of the factor structure when performing EFA, and it is commonly conducted when links between sets of variables are unknown (Thompson, 2004). According to Thompson there are three main purposes for using factor analysis: (1) evaluate score validity, (2) develop theory regarding the nature of the constructs, and (3) establish summarized relationships to identify clear factors to be used in subsequent analysis.

An EFA was conducted in the present study to evaluate the factorial validity of the fantasy football involvement multi-item variable, and to identify a factor structure that can be used in subsequent analyses such as analysis of variance. According to

authors Tabachnick and Fidell (2007) and Nurušis (2006), the steps in EFA typically include selecting the observed variables, computing a correlation matrix, examining the correlation structure of the set of variables, extracting the underlying factors, rotating the factors for better interpretability, and interpreting the results. The specific EFA procedures implemented for this study are discussed below.

*Two-way mixed design (split-plot) ANOVA.* Analysis of variance, or ANOVA, is a powerful statistical tool and is arguably the most heavily-utilized inferential technique conducted when researchers are comparing three or more means (Turner & Thayer, 2001). The purpose of the procedure is to test for significant differences between means. Specifically, an ANOVA examines the variability of the sample means in order to draw conclusions about population means. This is accomplished through analyzing the three sources of variance: individual differences, error, and the effect of the independent variable (Foster, Barkus, & Yavorsky, 2006).

A two-way mixed design or split-plot ANOVA is the combination of an independent between-subjects factor and an independent within-subjects factor that contains repeated measures. As with any ANOVA, a two-way mixed design ANOVA tests the equality of means. However, instead of three sources of variation there are five: the effect of the within-subjects variable, the effect of the between-subjects variable, individual differences within the between-subjects groups, the interaction effect of the between and within-subjects variables, and error. According to Turner and Thayer (2001), a two-way mixed design ANOVA is a powerful design that is widely used when subjects can be divided into groups, yet each participant has a score for every level of the within-subjects variable.

A two-way mixed design ANOVA contains the standard set of assumptions associated with a simple one-way ANOVA, extended to the matrix case: (1) multivariate normality, the population is normally distributed; (2) homogeneity of covariance matrices, samples encompass the same degree of variability and covariability relative to the dependent variable, and (3) independence, observations are independent of each other. In addition, the univariate approach to tests of the within-subject effects requires the assumption of sphericity. Sphericity is assumed when the covariance matrix formed by the dependent variables is spherical (circular) in form, which means that the covariance between any two variables is equal to the average of their variances minus a constant (Huynh & Mandeville, 1979).

*Multiple comparison analysis.* Multiple comparison procedures are used to assess which group means differ from which others after the overall significance test has demonstrated at least one difference exists (Klockars & Sax, 1986). According to Klockers and Sax, multiple comparisons help specify the exact nature of the overall effect determined by the significance test. For the purposes of this study, post hoc tests were conducted to explore differences in group means. Specifically, given that the number of comparisons is small, this study employed the Bonferroni-adjusted multiple comparison test. A Bonferroni-adjusted multiple comparison test is a simple analysis that utilizes a standard  $t$  test, but adjusts the significance level by multiplying by the number of comparisons being made. According to Tabachnick and Fidell (2007), a Bonferroni adjustment is commonly used in multiple comparison procedures to calculate an adjusted probability of comparison-wise type I error from the desired probability of family-wise type I error. Specifically, a paired  $t$  test was implemented to show the mean differences

between the within-subjects variable (team/game preference) in both research question 1 and 2.

*Logistic regression analysis.* Given that understanding the relationship between multiple variables is a common pursuit in the social sciences, many researchers utilize regression procedures. However, when the dependent variable is dichotomous, a vital assumption of traditional multiple linear regression is violated. Therefore, a flexible alternative is employed: a logistic regression. Binomial (binary) logistic regression is a popular statistical technique used when the dependent variable is a dichotomy and the independent variables are of any type (Meyers, Gamst, & Guarino, 2006). For instance, according to Hosmer and Lemeshow (2000), logistic regression can be used to do the following: (1) predict a dependent variable on the basis of continuous and/or categorical independents; (2) determine the percent of variance in the dependent variable explained by the independents; (3) rank the relative importance of independent variables; (4) assess interaction effects, and (5) understand the impact of covariate control variables. Logistic regression also requires fewer assumptions than discriminant analysis and multiple linear regression, and the only assumptions required are that the observations are independent, and that the variables are linearly related to the log of the odds that the event occurs (Nurušis, 2006).

*t test analysis.* According to Nurušis (2006), the *t* test is the most often used statistical procedure for testing hypotheses about population means. In general, the purpose of this analysis is to validate that either the null hypothesis (two population means are equal) or alternative hypothesis (two population means are unequal).

Depending on how the data were obtained, there are three different versions of the *t* test:

one-sample, paired-samples, and two-independent-samples. For the purposes of this study, a two-independent samples  $t$  test was conducted. In order to perform such a measure, three assumptions must be met: (1) the two samples must be independent of each other in the obvious sense that they are separate samples containing different sets of individual subjects; (2) the two samples are randomly drawn from normally distributed populations, and (3) the two samples must have equal variances (homogeneity of variances).

### *Data Analysis*

The demographic and descriptive assessments were conducted prior to the use of the other statistical techniques in order to assess the data being analyzed. This basic examination helped validate several key assumptions about the data including the frequency of responses for each variable, normality, and evidence of outliers or non-normal data. The following detailed description of data analyses was broken down by research question(s).

*Research questions Q1 & Q2:* Given the statistical power of a two-way mixed design ANOVA as opposed to separate ANOVAs for each dependent variable, research questions Q1 and Q2 were answered using one statistical procedure. This type of ANOVA was chosen because the responses related to the seven games provided by participants are not independent. Therefore, a two-factor mixed (between and within factor) design ANOVA was the most appropriate procedure to examine factors between (involvement level) and within (team preference) fantasy football participants' intention to watch televised NFL games.

The within-subjects variable for the mixed design ANOVA model was the team(s) playing in the game, the between-subjects variable was the fantasy football involvement group (high or low), and the dependant variable was the respondents' self-reported intention to watch televised NFL games. A significance level of .05 was utilized with this statistical test. In addition, intention to watch all types of games was examined in one statistical test to decrease the chances of a Type I error. Prior to conducting the primary statistical test to answer research question Q1, the assumptions of multivariate normality, independence, homogeneity of covariance matrices, and sphericity were examined through a combination of descriptive statistics (Levene's test of equality of error variances, Box's test of equality of covariance matrices, & Mauchly's test of sphericity).

Prior to the mixed design ANOVA, validity and reliability of scores from the adapted fantasy football involvement scale (Zaichkowsky, 1994) were examined. To assess validity, an EFA was conducted to identify the factorial validity and factor structure of the involvement instrument. However, prior to the factor analysis, non-normality was assessed through examination of skewness and kurtosis values while Bartlett's test of sphericity and Kaiser's measure of sampling adequacy were examined if a factor analysis is appropriate and if the sample is adequate.

An oblique (promax) rotation technique was used for EFA due to the presumed correlation between the underlying involvement factors. An oblique rotation technique allowed for more interpretable results of the factor analysis if there are correlations among the underlying factors (Thompson, 2004). The total number of factors was determined by the following criteria: (1) the Kaiser criterion, or eigenvalues greater than

1.0, (2) factor loadings above .32, (3) at least two items per factor, and ultimately, (4) interpretability of factors (Tabachnick & Fidell, 2007). Finally, Cronbach's alpha reliability was estimated to measure the internal consistency of the involvement factors once they are interpreted.

Further, in order to fully determine the impact of fantasy football involvement, a dichotomizing procedure was conducted. Respondents with scores on the involvement scale in the top 25 percent of the sample were labeled as being highly-involved fantasy participants and those in the bottom 25 percent were labeled as low involved participants. The respondents in the middle 50 percent were removed from the analysis.

With regard to research question Q1, the main effect test of the within-subject factor of the two-way mixed design ANOVA was analyzed to determine if there are mean differences in intention to watch the televised broadcast of the sport objects based on team/game preference. The main effect test of the within-subjects factor in a two-way mixed design ANOVA procedure can only determine if there were significant differences on the within-subject variable. A multiple comparison test was necessary to determine just which within-subjects group means differ significantly from others. According to Klockars and Sax (1986), a multiple comparison analysis is a common procedure for univariate ANOVA. Therefore, a paired *t* test analysis with a Bonferroni adjusted alpha level (0.008) was conducted to determine which sport objects differ from each other based on the mean intention to watch a televised broadcast. The multiple comparison analysis provides pertinent results, for a central interest of this research question was the individual behavior of each of the variables in the ANOVA model.



With regard to research question Q2, the test of the interaction effect of the between and within-subject variables was analyzed to determine if intention to watch televised NFL games is related to the combination of who is playing in the game and an individual's level of fantasy football involvement. This investigation explains the moderating effect that fantasy football involvement has on a participant's intention to watch televised NFL games. Once again, the mixed design ANOVA only provides information that there was a significant interaction effect. In order to identify which pairs of means are significantly different from others based on level of involvement, a test of simple effects was necessary (Meyers et al., 2006). A test of simple effects focuses on the cell means separately for each level of a single independent variable. For example, in the present study, a test of simple effects illustrates the difference between high and low-involved participants with respect to their likelihood of watching specific NFL teams and/or games. Similar to above, a Bonferroni adjustment was conducted to minimize the risk of Type I error.

*Research question Q3:* A logistic regression was conducted to determine which variables predict a participant's level of fantasy football involvement. Using a logistic regression model, a researcher can directly estimate the probability that one of two events will happen (Nurušis, 2006). The dichotomous nature of the fantasy football involvement groups (i.e., high or low) reaffirm the use of logistic regression model as the most appropriate statistical procedure for this research question. The predictor variables in this model include: (1) the total number of years participated, (2) the total number of fantasy football teams owned, (3) the total number of friends, family, and/or co-workers participating against, (4) the self-reported level of skill perceived in fantasy football, (5)

the amount of money spent to participate, (6) the participant's total ALTS score, (7) the likelihood to watch their best fantasy player's NFL team over their favorite NFL team given the two teams played at the same time on different channels, (8) the total number of hours spent on the Internet per day, and (9) the participants age.

Prior to analyzing the significance of the overall model, it was recommended to test for overall fit of a logistic regression model (Meyers et al., 2006). To do so, the Hosmer and Lemeshow test, also called the chi-square test, was interpreted. A finding of non-significance ( $p > .05$ ) corresponds to the model's adequately fitting the data. Once established, the results of the logistic regression were analyzed by the significance of the predictor model over the constant-only model. The omnibus tests of model coefficients chi square ( $\chi^2$ ) were conducted to determine significance based on  $\alpha = .05$ . The Nagelkerke pseudo  $R^2$  was then examined to determine the approximate amount of total variance explained by the model. Further, the prediction success rates of both high and low involved participants were analyzed. Finally, the regression coefficients, Wald statistics, odds ratio, and confidence intervals for odds ratios were analyzed for each predictor in order to determine statistical significance and interpretability of each predictor variable.

*Research question 4:* An independent-samples  $t$  test was conducted to examine the relationship between fantasy football involvement and a participant's attitudinal loyalty to their favorite NFL team. The observations used in this analysis were assumed to be independent; therefore the assumption of independence was met. In addition, the sample size for the two groups was greater than 40; therefore, the assumption of normality was assumed to be met given that the larger sample size produces a fairly

robust test even in the presence of nonnormality, due to the Central Limit Theorem (Nurošis, 2006). To establish equality of variance, Levene's test for equality of variance was examined with a nonsignificant ( $\alpha > 0.5$ ) test suggesting that the equality of variance assumption was met. The  $t$  value was computed to interpret significance of the mean difference in attitudinal loyalty between high versus low involved participants using an alpha of .05. Prior to the  $t$  test analysis, Cronbach's alpha reliability was estimated to measure the internal consistency of scores from the ALTS (Heere & Dickson, 2008).

## CHAPTER IV

### THE IMPACT OF ATTITUDES AND FANTASY FOOTBALL INVOLVEMENT ON INTENTIONS TO WATCH NFL TEAMS ON TELEVISION

#### Introduction

Similar to other business sectors, the sport industry is driven by individual consumers. However, the contemporary sport fan has evolved into a demanding and mercurial consumer. In addition, technological advances and high-quality media offerings have produced an ultra-competitive marketplace wherein sports fans have numerous outlets in which to spend their limited amount of time and money. This paradox has created a significant marketing challenge for the sport industry. Fan connection, even at a fundamental level, has become a difficult endeavor. Therefore, further investigation into sport consumer behavior is required to arm sport marketing practitioners with the appropriate demographic and psychographic information to adequately compete in the sport market.

As a result of this need, previous sport management research has studied an array of consumer behavioral antecedents including motivation, involvement, and loyalty. In addition to these heavily-researched constructs, the strength and direction of sport consumer attitudes have been examined in an attempt to fully-understand sport consumer behavior (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000). According to

Foxall (1990), the attitude-behavior relationship is derived from cognitive psychology that is widely-accepted as the dominant paradigm for contemporary consumer behavior.

Interestingly, despite the prevalence of televised sport in our society, much of the discussion about sport consumer behavior has ignored media use as a viable area of study (Pritchard & Funk, 2006). However, previous research examining the attitude-behavior relationship among sports fans has primarily assessed sport television viewership intentions. According to Mahony and Moorman (1999), examining sport television viewership, as opposed to event attendance, is often more representative of a consumer's attitude toward a sport object due to several unrelated factors could affect game attendance (e.g. weather, location of facility, cost of tickets, quality of location, etc.). In addition, according to Mahony, Madrigal, and Howard (2000), explaining repeat viewership and the impact of media use on that behavior is indispensable in today's market because it often generates improved marketing and communication strategy. In all, researchers strongly contend that there is a significant need for additional research regarding the professional leagues' most substantial fan base, media-dominant consumers (Pritchard & Funk; Mahony et al.; Mahony & Moorman, 1999; 2000).

Within the last ten years, an ancillary sport media service created originally to enhance the experience of traditional sport fandom has developed into a highly-popular interactive pastime with the potential to alter traditional, team-focused sport consumer behavior concepts. This activity, called fantasy sports (a.k.a. Rotisserie and Fanalytics), has rapidly evolved into a \$4 to \$5 billion per year industry that includes nearly 30 million distinct participants within the United States and Canada (FSTA, 2008c). The activity is primarily an online service that is completely customizable, interactive, and

involves nearly every major professional sport, from the National Football League (NFL) to bass fishing. According to preliminary research by Comeau (2007) and Woodward (2005), fantasy sport participants consume greater amounts of mediated sport than traditional sports fans, and thus, represent a significant portion of the media-dominant sport fan population. Despite this popularity, quantitative inquiry into the distinct attitudes and behaviors of fantasy participants is lacking.

Previous exploratory research, however, has indicated that the fantasy sports has created a new, more diverse sport fan with a significant interest in a group of heterogeneous players in addition to their favorite team (Drayer et al., in press; Shipman, 2001). The premise of fantasy sports allows individual participants to act as general managers or owners of their own sports team. For example, a fantasy football participant typically manages up to fifteen players on his/her own team. Each week, this participant competes against another fantasy football team with an average of eight different activated players. As a result of this competition, a certain level of attraction is awarded to the participant's own players as well as an awareness of the players on his/her opponent's team. With ownership not limited to any specific player on any specific team, the combination of these non-traditional interests can ultimately result in a competitive curiosity in nearly every NFL game played each weekend.

Recently, television networks have begun to realize the potential of fantasy participants. According to Zeitchick (2005), for perhaps the first time in history, a subculture made up of fantasy participants is driving strategy at some of the nation's biggest broadcasters. Based on this remarkable phenomenon, there is a need for specific consumer behavior research examining the unique attitudes and interests associated with

this activity in order to understand more about the viewing behaviors of this influential and highly-coveted group of sport consumers.

*Sport Fan Attitudes and Behavioral Intentions*

The attitude-behavior relationship framework has been examined extensively in the areas of psychology and consumer behavior (Fishbein & Ajzen, 1975; Fazio, 1986; Fazio, Powell, & Herr, 1983; Wicker, 1969). According to Fazio, early research focused on two main concepts. First, researchers examined whether specific attitudes could predict behavior. The literature on this type of attitude-behavior relationship has shown that attitudes sometimes predict future behavior and sometimes they do not (Fazio, 2007). The second concept focuses on identifying moderating variables that affect the attitude-behavior relationship (Fazio). Variables such as inducements (Ajzen & Fishbein, 1973), various personality factors (Zanna, Olsen, & Fazio, 1980), and individuals holding a vested interest in a specific issue (Sivack & Crano, 1982) have been shown to affect the attitude-behavior relationship.

In 1983, Fazio et al. developed a model to understand the influence that attitudes have on consumer intentions. The model is process-oriented in that it focuses on *how* attitudes influence behavior. In particular, the model assessed the significance of positive and negative attitudes toward an object in leading up to direct and indirect consumer decisions. However, based on this assessment, a number of steps must occur in order for attitudes to influence behavior. First, the attitude must be activated. The authors proposed that attitude activation based on a direct behavioral experience has a stronger influence on perceptions and behavior than indirect activation. Second, attitudes developed through a direct behavioral experience will impact perceptions of a situation or event.

Additionally, if there is a set of norms or existing knowledge, these guidelines will also have a powerful influence on perceptions of a situation or event. Finally, those perceptions, developed through a combination of an individual's attitudes and their subjective norms, will guide consistent behaviors relative to the specific event/situation in question.

In Drayer et al., (in press), the Fazio et al. (1983) framework was extended to fantasy football participants through qualitative inquiry. Specifically, the authors proposed an adapted model in which fantasy football participation acted as the direct behavioral experience which activated an individual's attitudes towards the NFL and in turn influenced an individual's NFL perceptions. In addition, norms, represented by existing knowledge and feelings towards a favorite team, simultaneously guided an individual's NFL perceptions. Ultimately, these "altered" perceptions impacted NFL consumption behavior, and the type and frequency of consumption was continually affected by attitudes developed through a combination of fantasy football participation and existing normative attitudes.

The Fazio et al. (1983) model has also been previously adapted within the context of sport viewership intentions. As a result, researchers found that a sports fan's preference for a specific team, either positive or negative, has an effect on his or her decision to watch the game (Mahony & Howard, 1998; Mahony & Moorman, 1999, 2000). According to Fazio (1986), this assumption is of crucial importance because "the extent to which attitudes influence such perceptions determines the degree to which attitudes guide behavior" (p. 208).



Particularly, this research investigated the viewership intentions of both NFL and NBA fans in association with their favorite team, favorite player, most disliked team, most disliked player, and neutral teams. Mahony and Howard (1998) found interest in viewership only increased when a respondent's favorite team was directly or indirectly involved in the competition. Through examining television viewership intentions in the NBA, Mahony and Moorman (1999) concluded that respondents preferred watching their favorite teams regardless of their level of psychological commitment to the team unless their favorite team was having a bad season then psychological commitment was a significant variable. Mahony and Moorman (2000) replicated the Mahony and Howard (1998) study and confirmed past research which suggested the strong impact a favorite team has on viewership. In addition, this study investigated the importance of favorite and disliked players in conjunction with favorite and neutral-attitude teams and found a significant difference between the levels of viewership interest.

In all, these findings concluded that the attitude-behavior relationship with the spectator sport paradigm is complex (Mahony & Howard, 1998; Mahony & Moorman, 1999, 2000). For instance, while Fazio et al. (1983) determined that non-sport consumers were more likely to choose products when they had a strong positive attitude toward the product and were less likely to consume an item toward which they had a strong negative attitude, previous sport-related research has concluded that both positive (favorite team) and negative (most disliked team when a perceived threat to the favorite team) attitudes resulted in increased viewing intentions (Mahony & Howard; Mahony & Moorman 1999; 2000). Therefore, the authors concluded that sport marketers should strongly identify disliked teams and players in an effort to produce a perceived threat to fans' favorite

teams. However, these studies were limited to traditional team fandom that has historically been a singular team experience. Given the popularity of fantasy sports and the unique nature of activity, an objective of this paper was to investigate the distinct attitudes and behavioral intentions of fantasy football participants to determine the effect the activity has on traditional team fandom.

### *Purpose and Hypotheses*

Following the Fazio et al. (1983) and Drayer et al. (in press) framework, the purpose of this study was to examine the extent to which fantasy football participation activates an individual's attitude toward individual NFL teams and games by investigating the relationship between fantasy participation and intentions to watch the televised broadcast of fantasy-relevant sport objects. Fantasy football was selected as the activity of choice due to its enormous popularity and its status as the gateway activity to other fantasy sports (FSTA, 2008a). Given the unique nature of fantasy football in which participants are attracted to a group of heterogeneous NFL players, an investigation into the attitude-behavior relationship with regard to fantasy participation may add to the complexity of the sport spectator paradigm. As a result, the first hypothesis was designed to replicate previous research (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000) and to examine the influence of fantasy football participation in conjunction with strong positive, strong negative, and neutral attitudes on NFL viewing intentions.

H4.1: When a fantasy football participant is asked how likely they are to watch specific NFL teams in a typical game, fantasy football participant's will exhibit the following order of preference: (a) favorite NFL team, (b) NFL team with best fantasy player, (c) NFL team with opponent's best fantasy player, (d) most disliked NFL team when it is described as a threat, (e) neutral-attitude NFL team.

The second purpose of this study was to examine the influence of fantasy football participation on viewing intentions of ESPN's Monday Night Football (MNF). The NFL is a parity-driven league. Teams that were dominant one year sometimes spend the following year at or near the bottom of the standings and vice versa. Despite this unpredictability, the MNF schedule is selected in early April, and the result has polarized television ratings due to poor late season matchups (Gough, 2008; Reynolds, 2007). Given the significance of primetime television programming, major networks cannot afford to gamble on whether viewers will tune-in. Therefore, the second hypothesis was designed to determine the significance of the fantasy football participation as a means to attract primetime television audiences.

H4.2: When a fantasy football participant is asked how likely they are to watch a MNF game between two neutral teams, fantasy football participants are more likely to watch the contest if their weekly fantasy outcome is dependent upon players in the game.

Lastly, this study aimed to examine the extent to which intention to watch televised NFL games was dependent on the interaction between the team playing in the game and a fantasy participant's level of fantasy football involvement. The level of involvement has been shown to be an important consumer indicator in the fields of marketing, advertising, and leisure behavior (Zaichkowsky, 1986; 1994). In addition, recent research in the area of sport spectators has provided utility of the involvement construct to better understand consumer motives in a diverse and competitive sport industry (Funk, Ridinger, & Moorman, 2004). Previous viewership research has also investigated other moderating factors between an individual's attitudes and their intentions to watch televised NFL games, such as psychological commitment to one's favorite team (Mahony & Moorman, 1999). However, by introducing involvement level

as the moderating factor, sport marketing practitioners are provided with additional market segmentation data as well as important information about the unique differences between media-dominant sport fans. As a result, hypotheses 4.3, 4.4, and 4.5 investigated the moderating influence of differing levels of fantasy football involvement on intentions to watch different televised NFL teams and games. Specifically, significant interaction effects were hypothesized between involvement, fantasy-relevant teams and games, and neutral-attitude teams; therefore, significant interaction effects between involvement and the other two teams (favorite and most disliked) were not expected.

- H4.3: When a fantasy football participant is asked how likely they are to watch their fantasy football player's team and a neutral team, there will be a significant interaction between who is playing in the game and fantasy football involvement level. Highly-involved participants will be significantly more likely to watch their fantasy player's team, while low involved participants will not indicate a significant difference in intentions to watch these teams.
- H4.4: When a fantasy football participant is asked how likely they are to watch a team with their opponent's best fantasy football player and a neutral team, there will be a significant interaction between who is playing in the game and fantasy football involvement level. Highly-involved participants will be significantly more likely to watch the team with their opponent's best fantasy player, while low involved participants will not indicate a significant difference in intentions to watch these teams.
- H4.5: When a fantasy football participant is asked how likely they are to watch ESPN's Monday Night Football when it is described as consisting of two neutral teams with no fantasy implications and the same two neutral teams with fantasy implications, there will be a significant interaction between the two different games situations and fantasy football involvement level. Highly-involved participants will be more likely to watch the MNF game when there are fantasy implications, while low involved participants will not indicate a significant difference in intentions to watch these games.

## Methods

### *Sample and Instrumentation*

The target population for the present study was individual fantasy football participants over the age of 18 whom currently participate in the activity. Potential respondents were selected randomly from a pool of 5,000 FSTA member participants (50% pay-to-play; 50% play-for-free). The FSTA represents more than 125 member companies in the fantasy sport industry, and has an estimated five to seven million participants. Out of this pool of 5,000 FSTA member participants, 1,600 potential respondents were randomly selected for participation in this study.

The survey used in this study contained six major parts with a total of 28 items. First, Celuch and Taylor's (1999) eight-item, service-specific modification of Zaichkowsky's (1994) Personal Involvement Inventory (PII) was used to measure the extent of personal relevance given to fantasy football based on the inherent needs and interests of the participant. Second, respondents were asked to identify five independent NFL teams based on the following attitudinal or fantasy-related factors: favorite team, most disliked team, two teams about which they feel neutral, and the team for which their best fantasy football player plays. Based on these selections, respondents were asked how likely they would be to watch each team, if that team were playing on television. Also, in order to assess attitudes toward an opponent's players, participants were asked how likely they would be to watch the team of their fantasy opponent's best player.

Finally, given the exclusivity and importance of ESPN's Monday Night Football (MNF), two questions were asked regarding the respondents' intentions to watch this primetime event. Specifically, respondents were asked how likely they would be to watch

a MNF contest between two neutral teams and then asked how likely they would be to watch the same MNF contest however their fantasy contest was dependent upon the game's outcome. A seven point Likert-type scale ranging from 1 (not at all likely) to 7 (extremely likely) was used, and the mean score for all participants for each response was examined.

### *Procedures and Analysis*

Data collection for this study took place from October 24 to November 30, 2008. Following Dillman's (2000) web-based survey protocol, each selected participant was sent an introductory e-mail with an official notice describing the purpose of the study, contact information, anticipated time required, a paragraph detailing the participant's informed consent, and ultimately, an embedded link to the survey. One follow-up e-mail was sent in order to increase the response rate.

A two-way mixed design or split-plot ANOVA was utilized to answer all of the hypotheses. This type of ANOVA was performed because the responses related to the seven games provided by participants were not independent. Therefore, a two-factor mixed design ANOVA was the most appropriate procedure to examine factors between and within fantasy football participants' intention to watch televised NFL games. The within-subjects variable for the mixed design ANOVA model was the team(s) playing in the game, the between-subjects variable was the fantasy football involvement group (high or low), and the dependant variable was the respondents' self-reported intention to watch televised NFL games.

Prior to running the mixed design ANOVA, the final sample underwent the dichotomizing procedure with regard to the fantasy football involvement variable.

Previous research has frequently used this method to eliminate respondents who were relatively neutral on a variable of interest (Darley & Lim, 1992; Haugtvedt et al., 1992; Mahony & Moorman, 1999). Further, a majority of involvement research has contrasted differing levels of consumer involvement (i.e., high & low), and studied its effect on decision making, information gathering, and information sources (Bienstock & Stafford, 2006). Therefore, total scores for respondents in the top 25 percent and bottom 25 percent of the adapted PII were kept for the further analysis while the middle 50 percent were discarded.

*Hypotheses 4.1-4.2.* The main effect test of the within-subject factor of the two-way mixed design ANOVA was analyzed to determine if there were mean differences in intention to watch the televised broadcast of the sport object based on team/game preference. However, this test could only determine if there were significant differences on the within-subject variable. A multiple comparison test was necessary to determine just which within-subjects group means differ significantly from others. According to Klockars and Sax (1986), a multiple comparison analysis is a common procedure for univariate ANOVA. Therefore, a paired *t* test analysis with a Bonferroni adjusted alpha level (0.008) was conducted to determine which sport objects differ from each other based on the mean intention to watch a televised broadcast. According to Tabachnick and Fidell (2007), a Bonferroni adjustment is commonly used in multiple comparison procedures to calculate an adjusted probability of comparison-wise Type I error from the desired probability of family-wise Type I error.

*Hypotheses 4.3-4.5.* The test of the interaction effect of the between and within-subject variables was analyzed to determine if intention to watch televised NFL games

was related to the combination of who was playing in the game and an individual's level of fantasy football involvement. This investigation explained any moderating effect that fantasy football involvement has on a participant's intention to watch televised NFL games. Once again, the mixed design ANOVA could only provide information that there was a significant interaction effect. In order to identify which pairs of means were significantly different from others based on level of involvement, a test of simple effects was necessary (Meyers, Gamst, & Guarino, 2006). A test of simple effects focuses on the cell means separately for each level of a single independent variable. Once again, a Bonferroni adjustment was implemented to minimize the risk of Type I error.

### Results

A total of 367 participants began the survey with 325 completing it. This resulted in a response rate of 21.5%. Similar to the FSTA's (2008a) demographic findings, the average participant in this study was a Caucasian (95%) male (93%) with at least a bachelor's degree (49%). However, the average age (37) was lower than the FSTA's finding (41). Marital status (55% married) and annual household income (56% with at least \$75,000) were also slightly lower than previous FSTA's results. For a more comprehensive look at this sample's demographics refer to Table 4-1.

Prior to running the statistical procedures to assess the hypotheses, the validity and reliability of the involvement scale scores were tested. Analogous with prior research (Beinstock & Stafford, 2006; Celuch & Taylor, 1999; Zaichkowsky, 1994), the adapted PII scores for this study resulted in a two-dimensional construct. The results of the EFA with promax (oblique) rotation confirmed the existence of two highly-correlated underlying factors with four items loading on each factor: cognitive (eigenvalue = 1.293



and factor loadings  $> .652$ ) and affective (eigenvalue = 4.733 and factor loadings  $> .426$ ). Each factor also resulted in reliable scores according to Cronbach's alpha,  $\alpha = .901$  and  $\alpha = .871$ , respectively. Furthermore, Cronbach's alpha for the entire 8-item scale ( $\alpha = .896$ ) signified that the adapted PII scores for this sample were internally consistent.

**Table 4-1** Demographics of the Current Sample ( $N = 325$ )

Age (n = 324)			Education (n = 322)		n	%	Income (n = 323)		n	%
Mean	36.67		High School		96	30%	Less than \$25,000		21	7%
St Dev	14.35		Vocational Degree		8	2%	\$25,000-\$49,999		48	15%
Median	34		Associates Degree		48	15%	\$50,000-\$74,999		73	23%
Range	18-81		Bachelors Degree		109	34%	\$75,000-\$99,999		59	18%
			Masters Degree		40	12%	\$100,000-\$124,999		35	11%
Gender (n = 324)			Doctoral Degree		9	3%	\$125,000-\$149,999		10	3%
Male	308	95%	Professional Cert.		6	2%	Over \$150,000		30	9%
Female	16	5%	Other		6	2%	Rather not say		47	14%
Marital Status (n = 322)			Ethnicity (n = 321)			Involvement (n = 325)				
Married	176	55%	Asian		5	2%	Low		80	25%
Separated	2	1%	Black		4	1%	Middle		164	50%
Divorced	14	4%	Caucasian		298	93%	High		81	25%
Single	114	35%	Hispanic		9	3%				
Other	16	5%	Other		5	2%				

#### *Hypothesis 4.1*

The results of the two-way mixed design ANOVA for Hypotheses 1 and 2 indicated a significant main effect for the team(s) featured in the game,  $F(6, 640) = 60.999, p < .001$ . The paired  $t$  test procedure, results shown in Table 4-2, was then implemented to make pairwise comparisons. As predicted in Hypothesis 4.1, the results indicated a significant difference between the intention to watch each NFL team. Moreover, the order in which fantasy participants preferred to watch these individual teams also supported the initial hypothesis. As a result, the findings provide complete confirmation of Hypothesis 4.1.

**Table 4-2** Means and standard deviations for Hypothesis 4.1

Team Playing in the Game	Likelihood of Watching - <i>M</i> (SD)
Favorite Team	6.50 (0.92) <sup>a</sup>
Team with Best Fantasy Football Player	5.20 (1.49) <sup>b</sup>
Team with Opponent's Best Fantasy Player	4.65 (1.78) <sup>c</sup>
Most Disliked NFL Team [threat]	4.03 (1.93) <sup>d</sup>
Neutral Attitude Team	3.66 (1.54) <sup>e</sup>
<b>Note.</b> Means that do not share the same letters differ at $p < .008^*$ in the Paired $t$ test procedure * <i>Bonferroni Adjusted</i>	

### Hypothesis 4.2

As predicted in Hypothesis 4.2, the results of the two-way mixed design ANOVA indicated the intention to watch ESPN's MNF when it was described as a game between two neutral-attitude teams ( $M = 5.21$ ) was significantly less than the intention to watch the same game with the same neutral-attitude teams, but described as affecting the participant's fantasy football contest ( $M = 6.10$ ). This finding, shown in Table 4-3, supported Hypothesis 4.2.

**Table 4-3** Means and standard deviations for Hypothesis 4.2

Game Condition	Likelihood of Watching - <i>M</i> (SD)
Monday Night Football Game with Two Neutral Teams but Fantasy Implications	6.10 (1.46) <sup>a</sup>
Monday Night Football Game with Two Neutral Teams	5.21 (1.86) <sup>b</sup>
<b>Note.</b> Means that do not share the same letters differ at $p < .008^*$ in the Paired $t$ test procedure * <i>Bonferroni Adjusted</i>	

### Hypothesis 4.3

In order to examine the impact of fantasy football involvement on preference for watching NFL teams and games, respondents were split into three groups based on their score on the PII. Respondents with scores on the PII that were in the top 25 percent of the sample (52 and higher) were labeled as being highly involved participants ( $n=81$ ) and

those who were in the bottom 25 percent (40 and lower) were labeled as being low involved participants ( $n=80$ ). Respondents with scores in the middle (from 41 to 51) were eliminated from further analysis. The remaining 161 respondents had an average age of 37.21 ( $SD = 14.704$ ) and included 149 males and 12 females. The means and standard deviations for both high and low involved fans for each of the seven game types are presented in Table 4-4. The two-way mixed design ANOVA revealed a significant interaction effect between involvement level and the team(s) playing in the game  $F(12, 636) = 2.992, p = .001$ . In order to make the comparisons suggested in the three hypotheses, a test of simple effects was used with a Bonferroni adjustment to control for the experimentwise error rate ( $p < .008$ ).

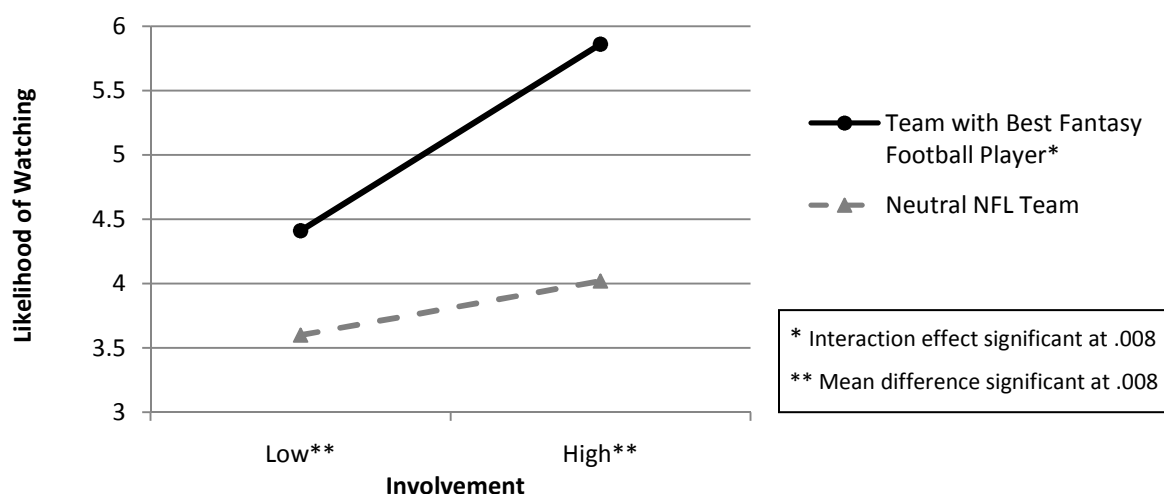
**Table 4-4** Means and standard deviations for Hypotheses 4.3 through 4.5.

Team	Likelihood of Watching - <i>M (SD)</i>	
	Low Involved	High Involved
Favorite Team	6.37 (1.03)	6.85 (0.48)
Team with Best Fantasy Football Player	4.41 (1.45)	5.86 (1.36)
Team with Opponent's Best Fantasy Player	3.99 (1.79)	5.72 (1.64)
Most Disliked Team (Threat)	3.72 (1.88)	4.26 (2.04)
Neutral Attitude Team	3.60 (1.35)	4.02 (1.59)
Monday Night Football Game with Two Neutral Attitude Teams	4.78 (1.96)	5.99 (1.62)
Monday Night Football Game with Two Neutral Attitude Teams but Fantasy Implications	5.55 (1.79)	6.76 (0.77)

When comparing preference for watching games featuring the team with the participant's best fantasy football player and a neutral attitude team, the interaction was significant (see Figure 4-1). The results of the test of simple effects indicated that mean preference for watching the fantasy relevant team was significantly greater for highly involved participants, while there was no significant difference between the two involvement groups when they were presented with the option of a neutral attitude team. However, in contrast to the prediction in Hypothesis 4.3, it appears that both groups

reacted strongly when their fantasy player was playing and both indicated a stronger desire to watch the team under this condition than the other option. Therefore, although there was a significant interaction, the mean differences do not completely support the prediction in Hypothesis 4.3.

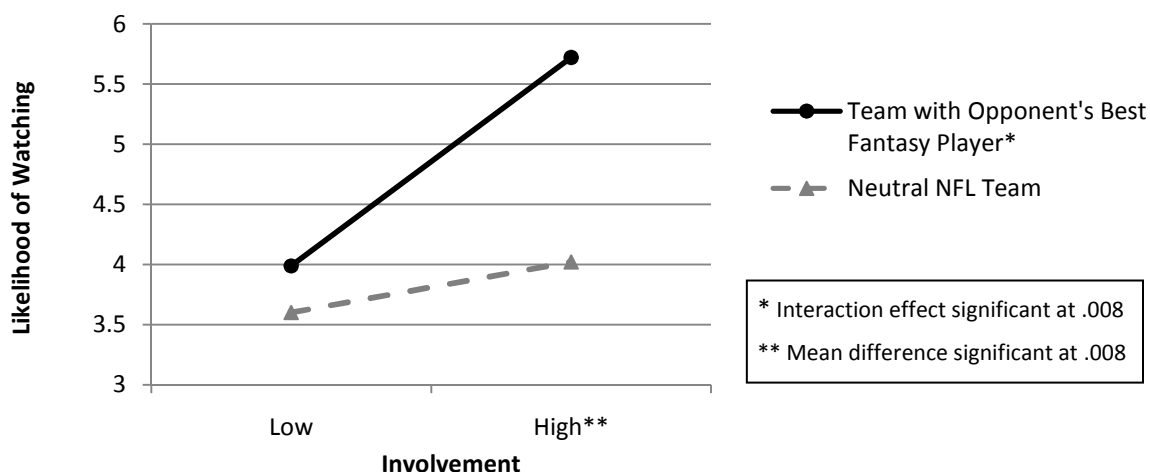
**Figure 4-1** Mean likelihood of watching a game on television featuring an NFL team with the participant's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.



#### *Hypothesis 4.4*

When comparing preference for watching games featuring the team with the participant's opponent's best fantasy football player and a neutral attitude team, the interaction was significant (see Figure 4-2). While the preference of low involved participants for watching the fantasy relevant team did not increase significantly compared to the neutral attitude team, the preference of highly involved participants did increase significantly. Essentially, highly involved participants wanted to watch their fantasy opponent's best fantasy player play, while low involved fans were significantly less interested in their opponent's best player. This completely supports the prediction in Hypothesis 4.4.

**Figure 4-2** Mean likelihood of watching a game on television featuring an NFL team with the participant's opponent's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.

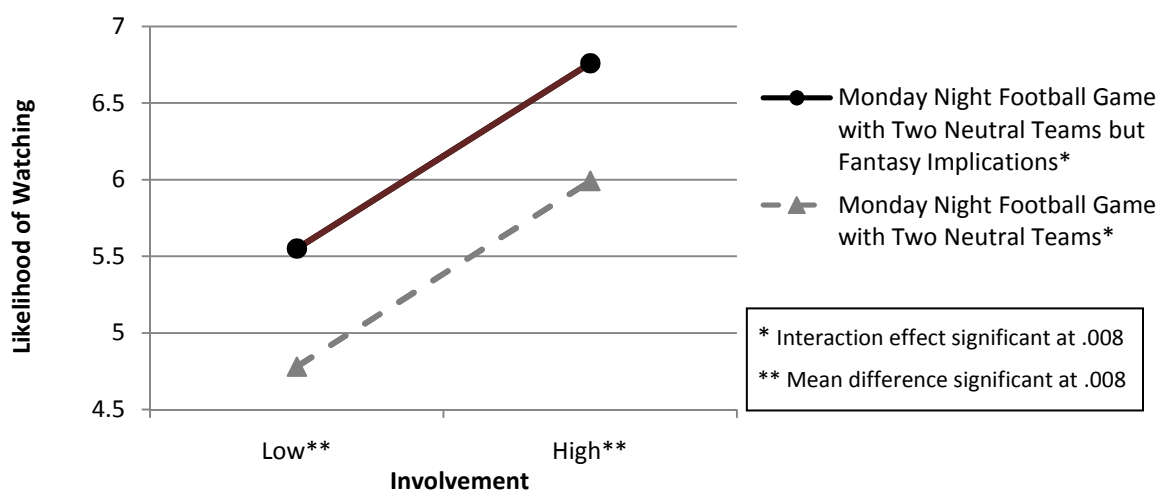


#### *Hypothesis 4.5*

When comparing preference for watching ESPN's MNF when the game was described as featuring two neutral-attitude teams and then again with the same two neutral-attitude teams but with fantasy football implications, the interaction was significant (see Figure 4-3). Similar to Hypothesis 4.3, however, the results of the test of simple effects indicated that the mean preference for watching the fantasy relevant game was significantly greater for both high and low involved participants. Therefore, it appears that both groups reacted strongly when their fantasy contest was dependent upon the MNF game and both indicated a stronger desire to watch the game under this condition than the other option. In addition to this unexpected result, the findings indicated a significant difference between high and low involved participants with regard to watching the neutral-attitude team matchup without fantasy implications. That is, high involved participants reported a significantly greater interest in MNF, in general.

Therefore, although there was a significant interaction, the individual mean differences did not completely support the prediction in Hypothesis 4.5.

**Figure 4-3** Mean likelihood of watching ESPN's MNF game between two neutral attitude NFL teams and a game with two neutral attitude NFL teams and fantasy implications as a function of the level of fantasy football involvement.



#### Discussion and Implications

The current study's results appear to confirm previous research about traditional viewing habits of NFL fans in which respondents prefer to watch their favorite team most of all. That is, the outcome with respect to one's favorite NFL team is consistent with the traditional team fandom work of Mahony and Howard (1998) and Mahony and Moorman (1999; 2000). This past research has also suggested the importance of rival teams when that team is considered a threat to one's favorite team, and once again, the current sample of fantasy participants' outcomes validated this finding in comparison with a neutral-attitude NFL team. In all, these results further the notion that the attitude-behavior relationship within spectator sport is a complicated paradigm. That is, consumers of conventional products and services typically prefer a neutral-attitude product and service to disliked product and service (Fazio et al., 1983), but the unique factors surrounding

spectator sport provide a model in which strong negative attitudes toward a sport product (team) result in the positive behavior of consuming that product (viewing the team on television).

In addition to the traditional team-related attitudes and behaviors, the results of this study indicated that fantasy football participation activates similar attitudes and behaviors. For instance, the positive and negative attitudes revealed toward fantasy-relevant NFL teams resulted in increased viewership intentions when compared to a neutral-attitude NFL team. According to previous research (Drayer et al., in press), fantasy football participation results in the ownership-related attraction to several heterogeneous NFL players; plus, the competitive-related awareness of an additional group of NFL players owned by a participant's opponent. Similar to the traditional team-related results, the positive attitudes towards one's own players and negative attitudes toward one's opponent's players resulted in increased viewership of those players' NFL teams. Despite these competitive and interactive interests associated with the fantasy football-relevant teams, fantasy football participants still preferred to watch their favorite NFL team over any other. However, as hypothesized, the viewership intentions associated with fantasy football-related teams ranked second and third above the most-disliked and neutral-attitude teams.

Theoretically, the implications of these results suggest that fantasy sport participation may be another connection point for sports fans in which individual players and their statistical prowess are the gateway to enhanced sport consumption. Following the Fazio et al.'s (1983) model, it appears fantasy football participation activates additional positive and negative attitudes toward NFL teams, and through the direct

behavioral experience associated with viewership, these attitudes impact a participant's perception of the product. In this case, the product is NFL football. In addition to the new attitudes associated with fantasy football, the results suggest the subjective norms associated with an individual's favorite NFL team remain intact. Thus, according to Fazio et al. and Drayer et al. (in press), the combination of these attitudes and norms should guide consistent behavior relative to the product.

In practical terms, it appears that fantasy sport participation duplicates the complex sport-specific attitude-behavior relationship that was once reserved only for traditional team fandom. In addition, while the previous paradigm only included two teams (most liked and disliked), the fantasy-related construct involves several teams due to the make-up of fantasy sport line-ups. Therefore, the league (NFL), as a whole, benefits from this increased interest in individual players through an altered fantasy-specific perception. From an individual team aspect, these new attitudes and behaviors do not seem to divert any interest away from a participant's favorite team. Thus, fantasy sport participation uniquely distributes additional attitudes, both positive and negative, to other teams throughout the league without weakening the viewership intentions associated with one's favorite team. As a result, fantasy participation does not transfer consumptive behavior, but rather adds to the consumption of the entire league product.

In addition, similar with other product and service sectors, the involvement construct with regard to fantasy football resulted in a positive relationship with behavioral intentions. That is, the findings of this study indicated that increased fantasy involvement resulted in significantly higher viewership intentions toward nearly every NFL team and game studied. Interestingly, fantasy football is an ancillary sport service



that is not directly financially tied to the NFL, its teams, or its players. Therefore, this study's findings suggest that as an auxiliary service, fantasy sport involvement appears to uniquely alter the attitudes and behaviors of consumers in a positive manner toward sport-related services in which there is no direct financial relationship. Furthermore, instead of resulting in positive consumption behavior of just one service (team), it appears enhanced fantasy football involvement further strengthens team-related attitudes, both positive and negative, across the entire league therefore strengthening the league's overall brand. Perhaps this is an extension of the distinctiveness of sport as an industry. For, is it reasonable for a highly-involved conventional service consumer of a barber shop or a lube service to extend additional positive consumption behavior to associated services such as a nail salon or a tire service? Perhaps, but the uniqueness of fantasy sport involvement lies in that it spreads the positive consumption behavior throughout the entire associated service industry (professional league). As a result, league officials and their subsidiaries should not be deterred by the lack of direct financial benefits associated with fantasy sports, for it appears to be an excellent brand-building activity.

The practical implications of these findings signify opportunities for individual leagues, teams, and players to capitalize on the increased exposure brought about through fantasy sport participation. First, individual leagues have an opportunity to cash-in on the lucrative demographic of fantasy sport participants. The average fantasy sport participant is younger and more affluent than traditional NFL fans (41-year-old Caucasian male with a Bachelor's Degree & a greater than \$75,000 income) and they represent corporate America's most highly-coveted consumer (FSTA, 2008b). Further, on average, fantasy participants are much stronger consumers of the leading product categories than general

sports fans and the general population (Fisher 2008). As a result, this group of consumers should be intensely targeted by the corporate sponsors, advertisers, merchandisers, media partners, in addition to individual teams and leagues.

Second, leagues should begin to develop fantasy-specific marketing strategies and promotions that foster additional fantasy sport-related involvement. Despite increased interest in several different teams, the results of this study signified that highly-involved players still preferred to watch their favorite team above all else; therefore, individual teams should also promote additional involvement in the activity. Previous research has suggested promotions that place emphasis on the amount of skill required for fantasy success may lead to enhanced fantasy involvement (Farquhar & Meeds, 2007). For instance, strategies that accentuate the amount of research and keen judgment required may lead to fantasy participants spending additional time and money on services associated with fantasy sport.

Third, this study's results suggest a growing awareness and importance of fantasy-relevant players. Fantasy-relevant players go beyond the superstar athletes and include all players that are integral to the game of fantasy. For instance, in football, quarterbacks (QB), running backs (RB), wide receivers (WR), and tight ends receive most of the fantasy-specific exposure. Therefore, players like Steve Slaton (RB) and Antonio Bryant (WR) may not receive the national notoriety of a Peyton Manning (QB) or a LaDanian Tomlinson (RB), but to fantasy participants, these individuals are well-known commodities that considerably affect fantasy-related outcomes each NFL weekend. As a result of this newfound fantasy relevance, the product and service endorsement possibilities for these players are enhanced.

The added attractiveness of players could also substantially benefit nationally-broadcasted primetime events, such as ESPN's MNF. The results of this study indicate that fantasy participants are significantly more interested in viewing a MNF game between two neutral-attitude teams with fantasy football implications as opposed to those same teams without fantasy football implications. Once again, this result provides evidence of the significant connection point of fantasy football participation. Given the potential for a dismal late season matchup between two lackluster NFL teams, television executives may seek to schedule highly-influential players within the realm of fantasy football later in the NFL season to counteract potential bad matchups and draw fans that would otherwise not watch the game. Also, the significant viewership intentions of all non-neutral-attitude teams provided by the fantasy football participants in this study may indicate the opportunity for additional primetime or nationally-televised events as it appears the demand for additional viewing opportunities exists.

Lastly, individual professional sport teams have the opportunity to capitalize on this connection with individual players through the attraction of additional fans beyond traditional geographical limits. The use of fantasy-relevant individual players in nationwide marketing campaigns may be the catalyst needed for building brand awareness in markets thought to be cornered by local teams. In addition, corporate team partners, sponsors, and advertisers should be aware that non-local fantasy participants are attracted to out-of-market game broadcasts via fantasy player-related attitude activation. Therefore, product placement and promotion will receive exposure beyond traditional team and regional markets.

In conclusion, this study confirmed numerous studies that previously investigated the traditional favorite team-related consumer behavior of sports fans (Mahony & Howard, 1998; Mahony & Moorman, 1999; 2000). In addition, the current study's findings also validated previous exploratory research of fantasy sport participants (Drayer et al., in press; Farquhar & Meeds, 2007). However, the results also provided new insight into the unique attitudes and behavioral intentions associated with the activity of fantasy football. Most notably, the results seem to signify a new connection point for fans to interact with and consume professional sport. Therefore, sport managers and marketers should comprehensively embrace fantasy sports as an easy, cost-effective means of reaching an engaged and loyal group of sport consumers.

As technology continues to advance, there will be increased opportunities for sports fans to consume sport. Given the importance of continually identifying, attracting, and retaining large audiences, there is an enhanced need to fully-understand contemporary sport consumer behavior. Therefore, the current study's comprehensive look at the unique attitudes and behaviors of this influential segment of sports fans should aid sport marketing practitioners in the packaging and delivering of sport products. Furthermore, the novelty of fantasy sport participation adds to the importance of this inquiry's results, for this relatively-young and lucrative demographic of fantasy sport participants are indispensable patrons to a professional sports league and its corporate subsidiaries.

#### *Limitations and Future Considerations*

This study examined the relationship between fantasy football participants' level of fantasy football involvement and intentions to watch televised NFL games. First, it

cannot be assumed that the results of this study could be completely generalized to other fantasy sports such as fantasy baseball, basketball, hockey, or golf. However, according to the FSTA (2008b), 96 percent of all fantasy participants partake in fantasy football; therefore, some of the consumer information could be generalized. Second, variables used in this study were selected after a comprehensive review of literature regarding product and service involvement in the business sector. As a result, this study does not imply that the selected variables were the only variables that influence a fantasy participant's behavioral intentions.

With regard to future research, this study was limited to a cross-sectional investigation of fantasy football participants. Given that fantasy participants are not the only group of highly-engaged and loyal professional sport fans, an intriguing investigation would compare and contrast similar attitude and behavior constructs between fantasy and non-fantasy participants. In addition, the extension of consumer behavior inquiry to additional fantasy sports may be a fruitful line of research. Fantasy football was selected for this study due to its enormous popularity and its significance as the gateway activity to other fantasy sports. However, additional fantasy activities have witnessed unprecedented growth within the past few years; plus, the unique policies and procedures of each professional sports league, specifically with regard to scheduling and broadcasting, may influence the consumption behavior of fantasy participants. Finally, continued consumer-based investigation into media-dominant sports fans is necessary. Representing the largest contingent of professional sports fans, the media-dominant consumer is an important actor within the sport industry. However, inquiry into their distinct attitudes and behaviors is considerably underdeveloped.

## CHAPTER V

### DIVIDED LOYALTY? AN ANALYSIS OF FANTASY FOOTBALL INVOLVEMENT AND ATTITUDINAL LOYALTY TO INDIVIDUAL NATIONAL FOOTBALL LEAGUE TEAMS

Fantasy sport participation is a unique activity that combines traditional sport fandom with interactive components to enhance a sport consumer's overall experience. However, the distinct features of fantasy sport participation also have the potential to alter traditional team-focused loyalties that have driven sport consumer behavior inquiry for decades (Funk & James, 2001; Funk & Pastore, 2000; Mahony, Madrigal, & Howard, 2000; Wakefield & Sloan, 1995). According to Funk and James (2006), contemporary sport consumer behavior seeks to understand consumer attitudes and behavior towards teams and sporting events in order to enable sport managers to effectively package and deliver the sport product. Interestingly, despite the prevalence of televised sport and the Internet in our society, much of the discussion about sport consumer behavior has ignored sport media use as a viable area for study (Pritchard & Funk, 2006). However, the need for additional research investigating the distinct attitudes and behaviors of professional sports' most substantial fan-base, the media-dominant sport fan, has recently garnered more attention (Mahony & Moorman, 1999; 2000; Pritchard & Funk, 2006).

Fantasy sport participants represent a sizeable portion of the media-dominant sport fan population. Fuelled by robust purchasing behavior (Fisher, 2008), this group of

sport fans also embody corporate America's most highly-coveted collection of consumers. Driven by the competitive, interactive, and social qualities of fantasy sport (Farquhar & Meeds, 2007), fantasy participants have transformed the activity into a major player within the sport industry (Leporini, 2006). Currently, the business of fantasy sport is estimated to have a \$4 to \$5 billion market impact, and includes more than 29.9 million unique participants (Fantasy Sports Trade Association [FSTA], 2008c).

Despite its enormous popularity, there is a considerable lack of in-depth information about this influential group of sport consumers. Recent research has found that fantasy sport has created a new, more diverse sport fan with a significant interest in a group of heterogeneous players in addition to their favorite team (Drayer, Shapiro, Dwyer, Morse, & White, *in press*; Farquhar & Meeds, 2007; Shipman, 2001). For example, a typical fantasy football participant manages up to fifteen players on his/her own fantasy team. Each week, this participant competes against another fantasy football team with an average of eight different activated players. As a result, a certain level of attraction is awarded to the participant's players as well as an awareness of the players on his/her opponent's team. The combination of these untraditional interests can ultimately result in a competitive curiosity in nearly every National Football League (NFL) game played each weekend.

In the NFL, fan loyalty has historically been reserved for one, individual team formed through strong geographical and/or social affiliations (Wann, Grieve, Zapalac, & Pease, 2008); however, the advent of fantasy sports has enhanced the visibility and importance of individual players on different teams. This unique bond has the potential to alter fan attitudes and behaviors, and ultimately, force sport practitioners to alter

marketing communication strategies to account for it. Due to this intriguing circumstance, this study investigated the relationship between fantasy football involvement and traditional NFL fan loyalty. Also, given the varying levels of fantasy participation, this study examined factors that predict differing levels of involvement with fantasy football. In order to examine these issues and guide the investigation, the following research questions were developed:

- Q1 To what extent is the level of fantasy football involvement related to a participant's loyalty to their favorite NFL team?
- Q2 What explanatory variables predict a participant's level of fantasy football involvement?

The following section further establishes a need for this investigation through a comprehensive review of fantasy sports, fan loyalty, and consumer involvement literature. At which point, the methodology for the current study is discussed followed by the results and a discussion of the implications including limitations and future considerations for research.

## Review of Literature

### *The Fantasy Sports Phenomenon*

The premise of fantasy sports allows individual participants to act as general managers or owners of their own sports team. Typically, participants compete weekly against other fantasy team owners in a league-style format. This competition usually lasts throughout the regular season and is directly associated with real-world professional sports and the statistical output of athletic performance. The game is primarily an online service that is completely customizable, interactive, and involves nearly every major



professional sport, from the NFL to bass fishing. In addition, fantasy sport allows fans to simultaneously follow their favorite sports while actively competing and interacting with family, friends, and acquaintances (Farquhar & Meeds, 2007).

According to the American Marketing Association, fantasy sport has emerged as an easy, cost-effective means of reaching an engaged and loyal group of consumers (Leporini, 2006). For instance, the average fantasy sport participant (38-year-old Caucasian male with a Bachelor's Degree & a \$75,000 income) is a highly-sought consumer (FSTA, 2008b). Further, fantasy participants are, on average, much stronger consumers of the leading product categories than general sports fans and the general population (Fisher 2008). As a result, this group of consumers is intensely targeted by the corporate sponsors, advertisers, merchandisers, media partners, in addition to individual teams and leagues.

Unfortunately, scholarly literature in the area of fantasy sports is limited (Lomax, 2006). Previous studies examined gambling concerns associated with fantasy sports, masculinity issues, and communication (Bernhard & Eade, 2005; Davis & Duncan, 2006; Shipman, 2001). Recently, however, researchers have begun to explore certain aspects of fantasy sport and consumer behavior.

For instance, in an attempt to determine types of online fantasy sports players based on motivational factors, Farquhar and Meeds (2007) identified a set of common underlying dimensions of motivations for fantasy sport league participation derived from motives associated with sports consumption and Internet usage. The study found the following five primary motives for fantasy sports participation: surveillance, arousal, entertainment, escape, and social interaction. The study also indicated that two perceived

gratifications of participating in fantasy sports, arousal and surveillance, led to significant differences among fantasy sport users.

Recently, researchers Drayer et al. (in press) investigated the consumption habits of fantasy football participants with regard to NFL products and services. In doing so, the authors provided the following propositions: (1) participants created new perceptions of the NFL through fantasy football; (2) at which point, the redefined NFL broadened their consumption behavior of associated products and services, and (3) NFL outcomes influenced both a participant's favorite team norms and fantasy-specific perceptions.

While the amount of information regarding the consumer behavior of fantasy participants is limited, previous research in the areas of sport consumption and sport consumer behavior has underscored the importance of understanding the psychological, sociological, and behavioral intentions of sport consumers (Funk & James, 2001; 2006). For the contemporary manager "understanding and adapting to consumer motivation and behavior is not an option – it is an absolute necessity for competitive survival" (Blackwell, Miniard, and Engel, 2005, p. 12). Within this burgeoning area of study, the constructs of consumer loyalty and involvement have been proven to assist marketing segmentation strategies (Backman & Crompton, 1991b; Funk, Ridinger, & Moorman, 2004; Park, 1996; Pritchard, Havitz, & Howard, 1999), yet the application of these theories to a population of fantasy sports participants has not been attempted.

### *Fan Loyalty*

A loyal consumer displays intense recurring behavior and a strong, positive attitude toward a product (Jacoby, 1971). Early research into the consumer loyalty paradigm, however, focused primarily on behavioral responses for measuring loyalty, and failed to explain *why* individuals repeatedly purchase particular brands. In its infancy of study, consumer behavior researchers sought to explain how and why loyalty was developed within a consumer. It was determined, according to researchers Day (1969) and Jacoby and Chestnut (1978), that characterizing brand loyalty solely on the basis of behavioral responses was not enough. Based on these arguments, loyalty definitions quickly adapted a two-dimensional model that explained both attitudinal and behavioral constructs. As a result, over the span of four decades, several consumer loyalty measures were developed (Backman & Crompton, 1991b; Dick & Basu, 1994; Jarvis & Wilcox, 1976; Rundle-Thiele & Mackay, 2001).

Stemming from this research, sport fan loyalty is viewed as a two dimensional paradigm involving both fan attitudes and fan behaviors. Previous research has determined that neither construct is mutually exclusive or more important than the other, but fan loyalty cannot be sufficiently explained without understanding the relationship between the two components (Backman & Crompton, 1991b; Gladden & Funk, 2001; Mahony et al., 2000). Nevertheless, for decades, sport management, sport sociology, and sport psychology researchers have focused primarily on behavioral indicators of fan loyalty, such as spectator attendance figures and sport merchandise purchases (Hill & Green, 2000; Kwon & Armstrong, 2006; Kwon, Trail, & James, 2007). However, similar to traditional consumer loyalty, sport fan loyalty requires investigation beyond behavioral

characteristics. That is, sports fans can also be segmented by their degree of attachment to a team or event, which is conceptualized as an individual's highly-developed attitude toward the sport product.

Consequently, it became popular among researchers to attribute and measure the attitudinal component of loyalty with the construct of psychological commitment (Backman & Crompton, 1991a; Iwasaki & Havitz, 2004; Mahony et al., 2000; Pritchard, 1991; Pritchard et al., 1999). Defined initially as a decision-making process that results in the tendency or unwillingness to change one's preference, psychological commitment has evolved into a heavily researched area in the fields of sport and leisure. Given its contextual significance, the following section reviews the evolution of psychological commitment as it represents the attitudinal component of sport fan loyalty.

*Psychological commitment.* . According to previous consumer behavior research, psychological commitment is defined many ways. It has been defined as an individual's: attitude strength (Robertson, 1976), "tendency to resist change in preference in response to conflicting information or experience" (p. 414, Crosby & Taylor, 1983), and attachment to an object that results recurring behavior and infers "a rejection of alternative behaviors" (p. 403, Buchanan, 1985).

In 1999, researchers Pritchard et al. developed a psychological commitment instrument that was the culmination of previous attitudinal loyalty research (Gahwiler & Havitz, 1998; James, 1997). The authors derived a five dimensional construct that included the following five sources of psychological commitment: cognitive complexity, cognitive consistency, confidence, position involvement, and volitional choice. Researchers Iwasaki and Havitz (2004) added to these previous findings by defining

resistance to change as an “individual’s unwillingness to change his/her preferences toward, important associations with, and/or beliefs about a product or an agency” (p. 50).

*Psychological commitment to team.* Mahony et al. (2000) looked to extend the work of Pritchard et al. (1999) and introduce psychological commitment to the spectator sport paradigm. In doing so, the authors developed the Psychological Commitment to Team scale. The instrument specifically emphasized the resistance of changing preference toward a particular professional sport team. However, researchers attacked the scale’s poor construct validity and unidimensional nature (Kwon & Trail, 2003).

Recently, heeding the suggestions of Kwon and Trail (2003), researchers Heere and Dickson (2008) proposed separating the terms commitment and loyalty in order to successfully construct a valid and reliable one-dimensional scale to measure the attitudinal component of loyalty. In all, the authors termed attitudinal loyalty to be a guide to behavior stemming from the interaction between negative external factors and an individual’s highly-developed attitudes toward a team. The resulting Attitudinal Loyalty to Team Scale (ALTS) streamlined the previous association work of Gladden and Funk (2002), the attitudinal results of Funk and Pastore (2000), and psychological commitment findings of Mahony et al. (2000) and arrived at a valid and reliable scoring scale that adequately represented attitudinal loyalty.

Previous literature has concluded strategies that increase attitudinal loyalty in fans result in maintaining or increasing sport consumption (Funk & James, 2001; Funk & Pastore, 2000; Mahony et al., 2000). The relationship between this construct and consumer involvement has become critical in predicting consumer behavior (Iwaski & Havitz, 1998; Park, 1996). For instance, Park concluded that the concepts of involvement

and attitudinal loyalty are distinct but highly intercorrelated, and in terms of guiding behavioral loyalty, involvement explains short-term usage while attitudinal loyalty describes long-term practice. Furthermore, the author suggested that future investigation into the relationship of these two constructs “would be a fruitful line of research” (p. 247).

### *Consumer Involvement*

The concept of involvement has evolved considerably since the 1960s. Derived from social judgment theory (Sherif & Hoveland, 1961), it is now heavily-utilized in both consumer behavior and leisure research to help understand purchase behavior of consumer goods and services (Zaichkowsky, 1986). In 1985, Zaichkowsky developed the Personal Involvement Inventory (PII) to measure product involvement. The author specifically identified three antecedents of involvement: characteristics of the person, characteristics of the product, and characteristics of the situation. These factors trigger different types of involvement (product, purchase decision, and advertising) that can produce differing results or consequences. In 1994, however, Zaichkowsky simplified and updated the PII to eliminate item redundancy. The resulting scale was reduced to ten total items with two dimensions (affective and cognitive). Overall, the application of the scale to marketing and advertising samples resulted in strong scores that were both reliable and valid.

*Service involvement.* Celuch and Taylor (1999) extended Zaichkowsky’s (1994) PII to the service industry. At that point, the PII had been appropriately applied to products, advertisements, and purchases, but there was limited investigation in relation to services. Therefore, in an effort to validate the scale within the service industry, the

authors replicated the PII across multiple services. Similar to Zaichkowsky's findings, the modified instrument captured both cognitive and affective factors identified in previous research. However, the results indicated the need for further instrument reduction. Thus, an eight item version of the PII inventory was deemed most appropriate, as the instrument provided valid and reliable scores across the service settings examined.

In all, the level of involvement has been shown to be an important consumer indicator in the fields of marketing, advertising, and leisure behavior. In addition, recent research in the area of sport spectators has provided utility of the involvement construct to better understand consumer motives in a diverse and competitive sport industry (Funk et al., 2004). However, there is limited research on involvement with an ancillary sport service such as fantasy sport. In-depth information regarding a sport consumer's level of fantasy football involvement will aid sport marketers in their understanding of this group of media-dominant sport fans. Furthermore, determining demographic and social variables that predict fantasy involvement levels will help practitioners properly segment the market and foster increased sport consumption.

## Methods

### *Sample*

The target population for the present study was individual fantasy football participants over the age of 18 whom currently participate in the activity. Fantasy football was selected as the activity of choice due to its enormous popularity and its status as the gateway activity to other fantasy sports (FSTA, 2008a). Potential respondents were selected randomly from a pool of 5,000 FSTA member participants (50% pay-to-play; 50% play-for-free). The FSTA represents more than 125 member companies in the

fantasy sports industry, and has an estimated five to seven million participants. Out of this pool of 5,000 FSTA member participants, 1,600 potential respondents were randomly selected for participation in this study.

This sample frame was influenced by the sample size requirements of both logistic regression analysis and dichotomization procedures. That is, small samples may accumulate high standard errors, and if there are too few responses in relation to the number of variables, it may be impossible to converge on a solution (Nurošis, 2006). As a rule of thumb, Green (1991) recommended a sample size for regression analysis should equal  $N \geq 50 + 8m$ , where  $m$  is the total number of predictor variables in the model. This study proposed nine predictor variables in the logistic regression analysis; thus, a sample size of at least 122 ( $50 + 8[9]$ ) participants was advised.

A dichotomization procedure divides a sample into three parts based on the participant's score on a given variable (25%, 50%, & 25%). At which point, the middle 50% of the initial sample is eliminated from further analysis. Previous research has frequently used this method to eliminate respondents who were relatively neutral on a variable of interest (Darley & Lim, 1992; Haugtvedt et al., 1992; Mahony & Moorman, 1999). Research in the social sciences has shown that the response rate for web-based surveys typically ranges from 15% to 73%, depending on the means of communication, incentive structure, and the visibility of the survey (Birnholtz, Horn, Finholt, & Bae, 2004; Gosling et al., 2004; Krantz & Dalal, 2000). The FSTA (2008a; 2008b) has received the range of response rates from 26% to 42% for their previous fantasy sport survey research. Given this information, the sample size requirements stated above, and



adding a conservative “cushion” for missing data, 1,600 potential respondents were contacted ( $\approx 244 / 15\%$ ).

### *Instrumentation*

The survey used in this study contained six major parts with a total of 26 items. First, Celuch and Taylor’s (1999) modification of Zaichkowsky’s (1994) PII was used to measure the extent of personal relevance given to fantasy football based on the inherent needs and interests of the participant. Second, Heere and Dickson’s (2008) Attitudinal Loyalty to Team Scale (ALTS) was utilized to assess a participant’s attitudinal loyalty to their favorite NFL team. This instrument was selected because it was the most recent contribution to the literature and produced both valid and reliable scores. However, due to perceived social desirability concerns that occurred during the pilot examination, the austerity of the four ALTS items were softened to elicit greater variability. Finally, in an attempt to understand specific characteristics that predict fantasy football involvement, basic demographic and fantasy football-related information were collected.

The potential predictor variables were selected following a comprehensive literature review that included controlled information obtained from the FSTA. As a result, the following variables were included in the model: (1) the total number of years participated, (2) the total number of fantasy football teams owned, (3) the total number of friends, family, and/or co-workers participating against, (4) the self-reported level of skill perceived in fantasy football, (5) the amount of money spent to participate, (6) the total ALTS score, (7) the likelihood of watching either their best fantasy player’s NFL team or their favorite NFL team given the two teams were playing at the same time on different

channels, (8) the total number of hours spent on the Internet per day, and (9) the participants age. Each item is operationally defined below.

Given that years of experience tend to affect an individual's behavior, respondents were asked to recall the total number of years they have played fantasy football. In addition, fantasy sport's reliance upon Internet technology requires individual participants to belong to one or more fantasy provider platforms (i.e., CBSsports.com or Yahoo.com). Therefore, in an attempt to examine online behavior associated with fantasy sports, participants were asked the amount of time spent online per day. Given that the investment of resources is often tied to involvement (Zaichkowsky, 1986), participants were also asked to report all money expended to participate in their most preferred league. Pilot analysis determined that the amount of money spent is highly-correlated with the amount of money at stake ( $r = .897$ ). Thus, this variable also indirectly examined the significance of gambling as a predictor of fantasy football involvement.

Due to the prevalence of free fantasy football leagues, participants are able to compete in as many leagues as they see fit. As a result, the total number of teams owned by a participant was included as a potential predictor. Additionally, researchers Farquhar and Meeds (2007) and Dwyer and Kim (in review) identified social interaction as a significant motivating factor for fantasy football participation. Therefore, the total number of friends, family, and/or co-workers that a participant competed against in their most preferred fantasy football league was investigated.

As mentioned in the review of literature, researchers Farquhar and Meeds (2007) determined that the classification of chance or skill resulted in two different types of fantasy participants: those motivated by surveillance and those driven by arousal.

Interestingly, the individuals motivated by surveillance tended to be more involved in fantasy sports as they believed they “got more out of fantasy sports when they put in more time and money” (p. 1217). Thus, the current study’s respondents were asked how much skill and/or chance they believe was required for fantasy football success.

In accordance with the initial research question, the total ALTS total score was included as a potential predictor of fantasy football involvement. Given that fan loyalty is defined as a two-dimensional construct, an additional question was included to address a participant’s behavioral loyalty with regard to their favorite NFL team. According to Homburg and Giering (1999), behavioral loyalty includes past behavior and behavioral intentions. Thus, this question was added to compare the attitudinal component of loyalty with the behavioral aspect while also potentially predicting involvement level. Lastly, a participant’s age was examined to determine any correlation between age and involvement.

#### *Procedures and Data Analysis*

Data collection for this study took place from October 24 to November 30, 2008. Following Dillman’s (2000) web-based survey protocol, each selected participant was sent an introductory e-mail with an official notice describing the purpose of the study, contact information, anticipated time required, a paragraph detailing the participant’s informed consent, and ultimately, an embedded link to the survey. A follow-up e-mail was sent two weeks later in order to increase the response rate.

Prior to data analysis, the final sample underwent the dichotomizing procedure with regard to the fantasy football involvement variable. Previous involvement research has contrasted differing levels of consumer involvement (i.e., high & low), and studied its

effect on decision making, information gathering, and information sources (Bienstock & Stafford, 2006). Therefore, total scores for respondents in the top 25 percent and bottom 25 percent of the adapted PII were kept for the further analysis while the middle 50 percent were discarded.

*Research question 1:* An independent-samples  $t$  test was conducted to examine the relationship between fantasy football involvement and a participant's attitudinal loyalty to their favorite NFL team. The  $t$  value was computed to interpret significance of the mean difference in attitudinal loyalty between high and low involved participants using an alpha of .05. Prior to the  $t$  test analysis, exploratory factor analysis and Cronbach's alpha were performed to validate dimensionality and measure the internal consistency of scores on the PII and ALTS.

*Research question 2:* A logistic regression was conducted to determine which variables predict a participant's level of fantasy football involvement. Using a logistic regression model, a researcher can directly estimate the probability that one of two events will happen (Nurušis, 2006). In this case, the dichotomous nature of the fantasy football involvement groups (high or low) reaffirmed the use of logistic regression model as the most appropriate statistical procedure for this research question.

## Results

A total of 367 participants began the survey with 325 completing it. This resulted in a response rate of 21.5%. Similar to the FSTA's (2008a) demographic findings, the average participant in this study was a Caucasian (95%) male (93%) with at least a bachelor's degree (49%). However, the average age (37) was lower than the FSTA's finding (41). Marital status (55% married) and annual household income (56% with at

least \$75,000) were also slightly lower than previous FSTA's results. For a more comprehensive look at this sample's demographics refer to Table 5-1.

**Table 5-1** Demographics of the Current Sample ( $n = 325$ )

<b>Ethnicity</b>	<b><i>n</i></b>	<b>%</b>	<b>Education</b>	<b><i>n</i></b>	<b>%</b>	<b>Income</b>	<b><i>n</i></b>	<b>%</b>
<i>Asian</i>	5	2%	<i>High School</i>	96	30%	<i>Less than \$50,000</i>	69	22%
<i>Black</i>	4	1%	<i>Associates Degree</i>	48	15%	<i>\$50,000-\$74,999</i>	73	23%
<i>Caucasian</i>	298	93%	<i>Bachelors Degree</i>	109	34%	<i>\$75,000-\$99,999</i>	59	18%
<i>Hispanic</i>	9	3%	<i>Masters Degree</i>	40	12%	<i>\$100,000-\$124,999</i>	35	11%
<i>Other</i>	5	2%	<i>Other</i>	29	9%	<i>Over \$125,000</i>	40	12%
						<i>Rather not say</i>	47	14%

<b>Marital Status</b>	<b><i>n</i></b>	<b>%</b>	<b>Gender</b>	<b><i>n</i></b>	<b>%</b>	<b>Age</b>	
<i>Married</i>	176	55%	<i>Male</i>	308	95%	<i>Mean</i>	36.67
<i>Separated</i>	2	1%	<i>Female</i>	16	5%	<i>St Dev</i>	14.35
<i>Divorced</i>	14	4%				<i>Median</i>	34
<i>Single</i>	114	35%				<i>Range</i>	18-81
<i>Other</i>	16	5%					

The participants surveyed averaged 7 years ( $SD = 4.91$ ) of fantasy football experience and owned an average of 4 teams ( $SD = 4.21$ ) per NFL season. In addition, 57% respondents indicated participating against seven or more friends, family members, and/or co-workers including 37% participating against ten or more. Thirty-one percent of respondents stated that fantasy football success required more skill than chance while 51% believed it involved equal amounts of both aspects. Sixty-six percent of participants indicated that they spent more than two hours on the Internet per day. Eighteen percent declared that they spent no money to participate while 36% admitted to spending at least \$100 including 4% that spent more than \$500. Finally, 61% of respondents would mainly watch their favorite NFL team instead of their best fantasy player's NFL team while the remaining 39% would watch both teams equally or the fantasy player's NFL team more.

Prior to running the statistical procedures to answer the research questions, the factorial validity and reliability of the involvement scale scores were tested. Analogous with prior research (Beinstock & Stafford, 2006; Celuch & Taylor, 2006; Zaichkowsky, 1994), the adapted PII scores for this study resulted in a two-dimensional construct with four items loading on each factor (affective [*eigenvalue* = 4.733] and cognitive [*eigenvalue* = 1.293]). Each factor also resulted in reliable scores according to Cronbach's alpha,  $\alpha = .901$  and  $\alpha = .871$ , respectively. Furthermore, Cronbach's alpha for the entire 8-item scale ( $\alpha = .896$ ) signified that the adapted PII scores for this sample were internally consistent.

Respondents were then split into three groups based on their total score on the adapted PII. Respondents with total scores on the instrument that were approximately in the top 25 percent of the sample (52 and higher) were labeled as being high involved participants ( $n = 81$ ) and those who were approximately in the bottom 25 percent (40 and lower) were labeled as being low involved participants ( $n = 80$ ). Respondents with scores in the middle (from 41 to 51) were eliminated from further analysis. The remaining 161 respondents had an average age of 37.43 ( $SD = 14.704$ ) and included 149 males and 12 females.

### *Research Question 1*

In order to examine the relationship between fantasy football involvement and fan loyalty, an independent samples *t* test was interpreted. However, once again, Cronbach's alpha was examined for the ALTS to ensure reliability of the scale scores. The results indicated that the scores were internally consistent,  $\alpha = .886$ . The results of the independent samples *t* test indicated that despite a participant's enhanced interest in a

group of heterogeneous NFL players, fantasy football involvement was positively related to an individual's attitudinal loyalty to their favorite NFL team,  $t(147.477) = -2.707, p = .008$  (See Table 5-2). That is, participant' who were highly involved in fantasy football also indicated a significantly higher attitudinal loyalty to their favorite NFL team.

**Table 5-2** Mean Score Differences on the ALTS for Fantasy Football Participants

	Fantasy Football Involvement				
	Low Involved Participants		High Involved Participants		<i>t</i> -test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>p</i>
<b>Attitudinal Loyalty to Team Scale Score</b>	23.857	5.248	25.949	4.353	0.008
<i>Note.</i> Mean scores are based on the sum of four Likert-type scales of 1 (strongly disagree) to 7 (strongly agree); higher scores indicate higher loyalty to one's favorite NFL team.					

### *Research Question 2*

In order to assess predictors of fantasy football involvement, a logistic regression was performed. The omnibus results indicated that the regression model successfully predicted a participant's fantasy football involvement level,  $\chi^2(9, 161) = 108.286, p < .001$ . Additionally, the model classified 85.9% of the participants into the correct group and accounted for 66.7% of the variance. Lastly, as shown in Table 5-3, five variables were significant predictors of fantasy football involvement while the remaining four variables were not.

To fully-understand the meaning of the significant predictors, the odds ratios were interpreted. With regard to the perceived level of skill involved in fantasy football, an increase of one on the skill/chance scale (5 point Likert-type scale) toward fantasy football being primarily a game of skill increased the odds of a participant being highly-involved by 378%. Similarly, for every additional year played, additional friend, family,

or co-worker played against, and additional point on a participant's total ALTS score the odds of a participant being highly-involved increased by 26%, 263%, and 24%, respectively. Lastly, while the total ALTS score was positively related to fantasy football involvement and a significant predictor of highly-involved participants, the likelihood of participants watching their best fantasy player's NFL team instead of their favorite NFL team was also a significant predictor. That is, for an increase of one on the likelihood scale (5 point Likert-type scale) toward solely watching their best fantasy player's NFL team the odds of a participant being highly-involved increased by 292%.

**Table 5-3** Individual Predictor Results for Logistic Regression Model

Predictor Variables	$\beta$	S.E.	Wald	df	Sig.	Exp( $\beta$ )
Total number of years played*	.233	.073	10.203	1	.001	1.263
Total number of teams owned	-.050	.060	.696	1	.404	.952
Total number of friends, family & co-workers*	.968	.221	19.214	1	.000	2.632
Level of skill perceived in fantasy football*	1.331	.425	9.794	1	.002	3.783
Amount of money spent to participate	.083	.269	.094	1	.759	1.086
ALTS total score*	.217	.066	10.779	1	.001	1.242
Likelihood to watch fantasy over favorite*	1.071	.386	7.724	1	.005	2.92
Total number of hours on the Internet / day	.071	.172	.167	1	.682	1.073
Age	-.026	.019	1.74	1	.187	.975
Constant	-16.227	3.165	26.285	1	.000	.000

\* Significant at a Bonferonni-Adjusted  $p \leq .005$

## Discussion

### *Divided Loyalty?*

Previous research has primarily focused on exclusive loyalty to an alternative, not many researchers have focused on “divided” loyalty (Yim & Kannan, 1999). However, it is certainly possible that the concept of fan loyalty could incorporate more than one alternative (divided) and that actual time and money spent are part of the necessary and sufficient conditions to support this behavior. With regard to the current study, the



findings provide interesting, yet contradictory outcomes for the relationship between fan loyalty and differing levels of fantasy football involvement. Specifically, the *t* test results suggest a positive relationship between attitudinal loyalty and involvement while the logistic regression results indicate an inconsistency between a highly-involved participant's increased attitudinal loyalty to their favorite NFL team and the intended behavior of watching that same NFL team on television. Thus, it appears as if the participants' involvement in fantasy football has lessened the behavioral component of team loyalty while it has strengthened the attitudinal component. Theoretically, these results raise intriguing questions about the distinct attitudes and behaviors of fantasy participants. For instance, Heere and Dickson (2008) defined attitudinal loyalty as a "guide to behavior" (p. 233); however, the results of the current study clearly indicate a disconnect between the two components.

Perhaps the results underscore the paradox of fantasy football participation from a traditional fan perspective. Historically, NFL fans have been known for their fierce loyalty to their favorite NFL team (Wann et al., 2008). However, the current study's results indicate that despite a strong attitudinal willingness to maintain their commitment to their favorite NFL team, the intended behavioral response of strictly watching that same NFL team does not match the attitudinal motivation. It appears enhanced involvement in fantasy football has provided additional viewing opportunities for this group of consumers that break down the connection between a participant's attitudes and behaviors. Given a sports fan's discretionary amount of time to consume sport and limited schedule of broadcasted NFL games, it is logical to see how a highly-involved fantasy participant would be conflicted between watching their favorite NFL team or

their best fantasy player's NFL team. In that case, fantasy football participation may represent a negative external change that divides the two components of team loyalty. On one hand, fantasy football seems to strengthen the highly-developed attitudes toward one's favorite team, and on the other hand, it appears to redistribute the traditional, singular team-centric behavior throughout the entire league via lower level commitments.

For sport marketers and managers, the implications of this finding are noteworthy. Despite the perceived paradox of fantasy football participation with regard to traditional NFL fandom, previous research has determined that the activity is extremely popular, for it significantly enhances a fan's spectator experience by providing a more interactive product that combines competition, social interaction, and skill (Drayer et al., in press; Dwyer & Kim, in review; Farquhar & Meeds, 2007; FSTA, 2008a; Shipman, 2001). Furthermore, the unique nature of the activity provides participants with a competitive interest in nearly every game played. The results of this study indicate that this enhanced interest has the potential to strengthen the overall league brand without weakening individual team brands. According to Yost (2006), fantasy football has been one of the best brand-building tools for the league over the past five years, for fans around the world are watching the NFL more intently than ever, and the continued growth of fantasy football translates into very real advertising and merchandising dollars for the league.

In addition, following the suggestions of Park (1996), it appears the NFL substantially benefits from highly-involved fantasy football participants. The author concluded that as a guide to behavioral loyalty increased involvement leads to short-term usage and heightened attitudinal loyalty cues long-term practice. Thus, the positive relationship between fantasy football involvement and attitudinal loyalty to team

established in this study suggests that the promotion of increased involvement with fantasy football will provide the NFL with sustained consumption through both short-term and long-term usage. As a result, league administrators looking to grow the overall popularity of a sport should endorse the sport's fantasy equivalent as a cost-effective promotional vehicle.

For individual teams, the results of this study also indicate an opportunity to extend fan loyalty programs beyond the traditional geographical base. According to Yim and Kannan (1999), sport managers should know (1) the detailed compositions of the loyalty base of their brands, (2) the potential drivers of their customers' divided loyalty, and (3) possible marketing actions that they can take to maintain and enhance customers' loyalty toward their brands. As mentioned above, fantasy football participation extends traditional team-focused loyalties to individual player attraction and awareness in an unprecedented fashion. Therefore, perhaps loyalty programs and other strategic marketing actions that seek to move fantasy players along an escalator such as Funk and James' (2001; 2006) Psychological Continuum Model (PCM) from awareness and attraction to attachment and allegiance would be beneficial for individual NFL teams looking to penetrate and retain new markets. According to the authors, movement along the PCM toward fan allegiance provides outcomes that are more durable and impactful for individual sport organizations.

### *Involvement Implications*

This study confirmed previous research of consumers with respect to the PII. Overall, fantasy sports participants with differing levels of involvement (high and low) had distinct experiences, attitudes, and behaviors (Zaichkowsky, 1985). For instance, the

significant positive predictor, total number of years played, indicates that as participants become more experienced with fantasy football the more involved they become. Not only is this an important finding for sport practitioners associated with professional sports, but it is a vital discovery for fantasy sports providers. According to the FSTA (2008b), vertical growth among fantasy football consumers is maturing. However, drop-out rates remain very low (3.4%), and more importantly, fantasy football is reported as the portal for the entire fantasy industry (FSTA; Leporini, 2006). Thus, as the growth of football steadily matures, the growth of the other sports, such as baseball, basketball, hockey, NASCAR, and golf is accelerating. Fantasy NASCAR, for example, has seen an unprecedented 18% increase in participation since 2004 (FSTA). The current study's results indicate that as fantasy football participation thrives in correlation with years of experience, technology continues to advance, and drop-out rates remain minimal, it appears the potential for future growth within the fantasy sport industry is inevitable.

The social interaction associated with fantasy sports also appears to spur greater levels of involvement as the total number of friends, family, and co-workers played against was a significant predictor variable. This confirms previous fantasy sports motivation research that found social interaction to be a significant motivator for fantasy sports participation (Cooper, 2007; Dwyer & Kim, in review; Farquhar & Meeds, 2007). Further, the results from this study support previous findings that 75 percent of participants play with individuals within their social circle (FSTA, 2008b). Specifically, these social interaction-related results lead to speculation about social context of fantasy sports play in which participants interact with and sustain friendship with other players. Given that the Internet has become the preeminent route to being involved in groups and

pursuing interests with like-minded individuals (Quan-Haase & Wellman, 2004), it seems likely that fantasy sport players are seeking personal gratification of developing and maintaining social relationships through fantasy sports. Perhaps more significantly, interaction with family, friends, and acquaintances seems to influence the level of involvement with fantasy sports.

Similar to the social interaction component, the skill/chance findings also validate previous research. That is, the relationship between a participant's perception of skill within fantasy football and their level of involvement correlates well with Farquhar and Meeds' (2007) fantasy sports user typology. According to the authors, two types of participants comprised the majority of the population, those individuals driven by arousal and those motivated by surveillance. The prime determinant distinguishing the two groups was the classification of fantasy sports as either a game of skill (surveillance) or game of chance (arousal). Interestingly, users driven by surveillance consumed more sport products through skill-based research on fantasy-related websites, TV broadcasts, and other sport media sources. With regard to the current study, the more perceived skill required to be successful in fantasy football, the more involved the respondents were in the activity.

Thus, sport managers and marketers should continue to facilitate the perception that fantasy sports are skill-based activities that require keen judgment and sound research. Promoting these types of aptitudes will support and foster an experience that encourages participants to spend more time and money focused on the sport products and services associated with the fantasy sports league. For instance, team depth charts, insider strategy details, injury reports, and even weather updates are examples of information

craved by skill-focused fantasy participants. Already, the rapid growth in fantasy sports has been credited with causing the soaring popularity of several television endeavors such as Fox NFL Sunday, ESPN's Baseball Tonight, and DirecTV NFL Sunday Ticket (Ballard, 2004). Therefore, sport marketers and managers should initiate additional skill-focused marketing campaigns in order to further engage this group of sport consumers already known for their avid purchasing behavior (Fisher, 2008).

Perhaps more telling than the significant variables were the predictors that were not significant. For instance, while the total number of years played was a significant predictor, the age of the participant and total number of fantasy football teams owned per season were not. The ability to join free fantasy leagues is abundant; however, the current study's findings suggest that this opportunity is not related to one's level of involvement. Thus, while one participant may own up to 30 different fantasy football teams, he/she is no more or less involved than the individual who owns just one team. Interestingly, the amount of time spent on the Internet per day was also not a significant predictor of differing involvement levels. The combination of these three results may suggest to practitioners that the profile of highly-involved fantasy participants is not limited to young, heavy online users with several fantasy teams.

Surprisingly, the amount of money spent to participate was also not a significant predictor of fantasy football involvement. According to Dr. Kim Beason of the FSTA (2008a), the average participant spends just over \$100 to play in one fantasy sports league. This total includes, but is not limited to entry fees, computer software, league commissioner services, transaction fees, printed magazines, draft kits, online updates, and roster predictions. Perhaps most notably, of the nearly 1,500 participants surveyed by

Beason since 2003, not one participant indicated playing completely free (FSTA). This is indicative of the significant economic possibilities available through fantasy sports participation. The current study found that the average participants spent \$83 to participate in fantasy football. However, the current study's findings appear to indicate that the amount of money invested to participate does not predict differences in involvement level.

Given the high-correlation between the amount of money spent and the amount of money at stake ( $r = .899$  [current study]), this finding may also dampen the gambling-related associations that have plagued the fantasy sport industry. Since its inception in the mid-1950s, fantasy sports leagues have been associated with sports wagering. Given that sport performance is unpredictable and league winners are traditionally compensated via league entry fees, it is understandable how these gambling associations were derived. However, recent Federal legislation and legal analyses have characterized fantasy sports as a legitimate, skill-based activity that is exempt from the legal scrutiny afforded to other forms of sports gambling (Boswell, 2008; Holleman, 2006). Nevertheless, the uncertainty of sports is a significant connection point for sports fans, and the debate over its legality lingers. However, the current study's results appear to validate previous legal research, as the amount of money spent was not a significant predictor of fantasy football involvement.

These findings are noteworthy for sport managers, corporate sponsors, and league administrators seeking to align their product or service with fantasy sports. Despite the highly-coveted and lucrative demographic of consumers participating in the activity, companies have been reticent to embrace fantasy sports as a legitimate activity. The

results of this study combined with the legislative exemption provided by Congress may provide the boost necessary to remove the negative stigma of gambling from this popular activity.

In conclusion, the results of this study provide important theoretical information regarding the interaction between fantasy football involvement and fan loyalty. Both constructs have been heavily-researched and well-documented as vital determinants of sport consumer behavior (Backman & Crompton, 1991b; Funk & James, 2001; 2006; Funk et al., 2004; Park, 1997; Pritchard et al., 1999); however, neither had been examined in the context of fantasy sports. According to this study's findings, the unique nature of fantasy sport participation alters the relationship between fan attitudes and behaviors, especially with regard to fan loyalty. In addition to the theoretical gain, the predictors of involvement provide practical implications for the future marketing of individual teams, leagues, and fantasy-related applications.

#### *Limitations and Future Research*

While this study was grounded in well-established theory, the findings are at best preliminary. For instance, the construct of loyalty is highly complex; thus, the fan loyalty paradigm is constantly being updated and improved. Depending on your source for the definition of the attitudinal component of loyalty the results of this study may vary. As a result, an extension of this study to include differing loyalty constructs is advised. Additionally, this study utilized the service-adapted version of Zaichkowsky's (1994) PII to explain fantasy football involvement. While this construct is widely-used, it is not the only option for assessing involvement. For instance, sport and leisure researchers have developed numerous involvement constructs that consist of several field-specific



dimensions. Thus, an intriguing extension of this study would include a different construct for measuring involvement.

With regard to fantasy sport, the opportunity for further investigation into this activity is abundant given its relative novelty and enormous popularity. Possible research agendas include tangible consumption studies that investigate well-researched behaviors of sport spectators, such as event attendance, merchandise acquisition, and televised viewership. In addition, the in-depth examination of other fantasy sports, such as baseball, basketball, hockey, golf, or NASCAR would be interesting, as these sports do not have the enormous fan following of the NFL. Finally, an investigation into a possible fantasy sport continuum would be noteworthy. Currently, fantasy football is reported as the gateway activity to all fantasy sport participation. Thus, a detailed inquiry into attitudes, behaviors, and outcomes associated with such a continuum would provide vital information for sport practitioners and fantasy sport providers.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (2008). Consumer attitudes and behavior. In C. P. Haugtvedt, P. M. Herr, and F. R. Kardes (eds.), *Handbook of consumer psychology* (pp. 525-548). New York: Psychology Press.
- Ajzen, I., & Fishbein, M. (1973). Attitudinal and normative variables as predictors of specific behaviors. *Journal of Personality and Social Psychology*, 27, 41-57.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Althaus, S., & Tewksbury, D. (2000). Patterns of Internet and traditional news media use in a networked community. *Political Communication*, 17 (1), 21-45.
- Andrews, D. L. (2001). Sport. In R. Maxwell (ed.), *Culture works: The political economy of culture* (pp. 131-162). Minneapolis: University of Minnesota Press.
- Andrews, D. L. (2006). *Sport–commerce–culture: Essays on sport in late capitalist America*. New York: Peter Lang.
- Associated Press (2005a, January 5). NFL sets another attendance record. Retrieved on June 6, 2008, from Lexis Nexis Academic.

- Associated Press. (2005b, April 19). NBC gets NFL again, ESPN gets MNF. Retrieved July 11, 2007, from <http://www.msnbc.msn.com/id/7548671/>
- Backman, S. J., & Crompton, J. L. (1991a). The usefulness of selected variables for predicting activity loyalty. *Leisure Sciences*, 13, 205-220.
- Backman, S. J., & Crompton, J. L. (1991b). Differentiating between high, spurious, latent, and low loyalty participants in two leisure activities. *Journal of Park and Recreation Administration*, 9(2), 1-17.
- Bagozzi, R. P., & Warshaw, P. R. (1990). Trying to consume. *Journal of Consumer Research*, 17, 127-140.
- Ballard, C. (2004, June 21). Fantasy world. *Sports Illustrated*, 100(27), 64-70.
- Bellamy, R. V. (2006). Sports media: A modern institution. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 63-76).
- Bernhard, B. J., & Eade, V. H. (2005). Gambling in a fantasy world: An exploratory study of rotisserie baseball games. *UNLV Gaming Research & Review Journal*, 9(1), 29-42.
- Bernstein, A., & Blain, N. (2003). The emergence of a major research field. In Alina Bernstein and Neil Blain (eds.): *Sport, media, culture* (1st ed.), (pp. 1-30). Portland, OR: Frank Cass Publishers.
- Bienstock, C. C., & Stafford, M. R. (2006). Measuring involvement with the service: A further investigation of scale validity and dimensionality. *Journal of Marketing Theory and Practice*, 14(3), 209-221.
- Birnholtz, D. B. Horn, T. A. Finholt and S. J. Bae. (2004). The effects of cash, electronic, and paper gift certificates as respondent incentives for a web-based survey of

- technologically sophisticated respondents. *Social Science Computer Review*, 22, 355–362.
- Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2005). *Consumer behavior* (10th ed.). Boston: South-Western.
- Booth-Kewley, S., Edwards, J. E., & Rosenfeld, P. (1992). Impression management, social desirability, and computer administration of attitude questionnaires: Does the computer make a difference? *Journal of Applied Psychology*, 77(4), 562-566.
- Boswell, J. (2008). Fantasy sports: A game of skill that is implicitly legal under state law, and now explicitly legal under federal law. *Cardoza Arts & Entertainment Law Journal*, 25(1257).
- Bourdieu, P. (1998). *Acts of resistance: Against the tyranny of the market*. New York: The New York Press.
- Boyle, R., & Haynes, R. (2003). New media sport. In Alina Bernstein and Neil Blain (eds.): *Sport, media, culture* (1st ed.), (pp. 95-114). Portland, OR: Frank Cass Publishers.
- Bradburn, N. M., Sudman, S., & Wansick, B. (2004). *Asking questions*. San Francisco: Jossey-Bass.
- Broadcast Engineering. (2005, August 12). DIRECTV SuperFan tier to offer NFL interactivity. Retrieved July 25, 2007, from <http://broadcastengineering.com/newsrooms/directv-nfl-superfan-20050812/index.html>
- Broughton, B., Lee, J., & Netheny, R. (1999, December 20-26). The question: How big is the U.S. sports industry? *Street & Smith's SportsBusiness Journal*, 23-29.

- Bryant, J., Brown, D., & Cummins, G. (2004) [A comprehensive profile of one week's sports programming in a Top-50 DMA]. Unpublished raw data. Published in Dan Brown and Jennings Bryant: Sports content on U.S. television. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 77-104).
- Bryman, A., & Cramer, D. (1997). *Quantitative data analysis with SPSS for Windows*. London: Routledge.
- Buchanan, T. (1985). Commitment and leisure behavior: A theoretical perspective. *Leisure Sciences*, 7(4), 401-420.
- Bureau of Labor Statistics. (2008). *Inflation calculator*. Retrieved on June 30, 2008, from <http://www.bls.gov/cpi/>.
- Burnett, J., & Menon, A., & Smart, D. T. (1993). Sports marketing: A new ball game with new rules. *Journal of Advertising Research*, 33(5), 21-35.
- Celuch, K., & Taylor, S.A. (1999). Involvement with services: An empirical replication and extension of Zaichkowsky's personal involvement inventory. *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 12, 109-122.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16, 64-73.
- Comeau, T. O. (2007). Fantasy football participation and media usage. Unpublished doctoral dissertation, University of Missouri – Columbia.
- Comte, E., & Stogel, Cl. (1990, January 1). Sports: A \$63.1 billion industry. *The Sporting News*, 60-66.

- Cooper, B. S. (2004). Going beyond traditional sport fandom: Development of the fantasy sports participant motivation scale. Unpublished master's thesis, California State University – Fullerton, Fullerton, California.
- Couper, M. P. (2005). Technology trends in survey data collection. *Social Science Computer Review*, 23(4), 486-501.
- Crosby, L. A., & Taylor, J. R. (1983). Psychological commitment and its effects on post-decision evaluation and preference stability among voters. *Journal of Consumer Research*, 9, 413- 431.
- Darley, W. K., & Lim, J. (1992). The effect of consumers' emotional reactions on behavioral intentions: The moderating role of personal relevance and self-monitoring. *Psychology & Marketing*, 9, 329-346.
- Davis, N. W., & Duncan, M. C. (2006). Sports knowledge is power: Reinforcing masculine privilege through fantasy sport league participation. *Journal of Sport and Social Issues*, 30, 244-264.
- Day, G. S. (1969). A two-dimensional concept of brand loyalty. *Journal of Advertising Research*, 9, 29-34.
- DeVellis, R. F. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage Publications.
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113.
- Dillman, D. A. (2000). *Mail and Internet surveys: The tailored design method*. New York: John Wiley and Sons.

- Drayer, J., Shapiro, S., Dwyer, B., Morse, A., & White, J. (in press). The effects of fantasy football participation on NFL consumption: A qualitative analysis. *Sport Management Review*.
- Duncan, M. C. (2006). Gender warriors in sport: Women and the media. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 231-252).
- Dwyer, B. (in review). The experience of fantasy football participation and its effect on televised NFL viewership: An exploratory analysis. Manuscript submitted for publication. *International Journal of Sport Marketing and Sponsorship*.
- Dwyer, B., & Kim, Y. (in review). For love or money: Exploring and developing a motivational scale for fantasy sport participation. Manuscript submitted for publication. *Journal of Sport Management*.
- Eitzen, D. S., & Sage, G. H. (2003). *Sociology of North American sport* (7th ed.). New York, NY: McGraw-Hill.
- eMarketer. (2007, March). Broadband worldwide: 2005-2011. New York, NY. Retrieved on March 27, 2008, from [http://www.emarketer.com/Reports/All/Emarketer2000383.aspx?src=report\\_head\\_info\\_reports](http://www.emarketer.com/Reports/All/Emarketer2000383.aspx?src=report_head_info_reports)
- eMarketer. (2008, February). US online population. New York, NY. Retrieved on March 27, 2008, from [http://www.emarketer.com/Report.aspx?code=emarketer2000486&src=report\\_summary\\_reportsell](http://www.emarketer.com/Report.aspx?code=emarketer2000486&src=report_summary_reportsell)
- Fantasy Sports Trade Association. (2008a). Fantasy sport consumer spending: Fantasy sports products and services. Denver, CO: Kim R. Beason.
- Fantasy Sports Trade Association. (2008b). Fantasy industry trends. Denver, CO: Kim R. Beason.

- Fantasy Sports Trade Association. (2008c, July 7). Fantasy sports industry grows to a \$800 million industry with 29.9 million players. Chicago: Jeff Thomas. Retrieved July 8, 2008, from <http://www.fsta.org/news/pressreleases/>
- Farquhar, L. K., & Meeds, R. (2007). Types of fantasy sports users and their motivations. *Journal of Computer-Mediated Communication, 12*, 1208-1228.
- Fazio, R. H. (1986). How do attitudes guide behavior? In R. M. Sorrentino & E. T. Higgins (Eds.), *The handbook of motivation and cognition: Foundations of social behavior* (pp. 204-243). New York: Guilford Press.
- Fazio, R. H. (2007). Attitudes as object-evaluation associations of varying strength. *Social Cognition, 25*(5), 603-637.
- Fazio, R. H., Powell, M.C., & Herr, P.M. (1983). Toward a process model of the attitude-behavior relation: Accessing one's attitude upon mere observation of the attitude object. *Journal of Personality and Social Psychology, 44*(4), 723-735.
- Ferguson, D., & Perse, E. (2000). The world wide web as a functional alternative to television. *Journal of Broadcasting and Electronic Media, 44*(2), 155-174.
- Filo, K., & Funk, D. C. (2005). Congruence between attractive product features and virtual content delivery for Internet marketing communication. *Sport Marketing Quarterly, 14*, 112-121.
- Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fisher, E., (2008, November 17). Study: Fantasy players spend big. *Street & Smith's SportsBusiness Journal, 11*(29), 1-2. Retrieved November 11, 2008, from <http://www.sportsbusinessjournal.com/article/60598>



- Fisher, E., & Ourand, J. (2007, March 26). Battle still looms over extra innings. *Street & Smith's SportsBusiness Journal*, 9(46), 23. Retrieved May 9, 2007, from [http://www.sportsbusinessjournal.com/index.cfm?fuseaction=search.show\\_article&articleId=54772&keyword=extra%20innings](http://www.sportsbusinessjournal.com/index.cfm?fuseaction=search.show_article&articleId=54772&keyword=extra%20innings)
- Fisher, R. J., & Wakefield, K. (1998). Factors leading to group identification: a field study of winners and losers. *Psychology & Marketing*, 15, 23-40.
- Foster, J. J., Barkus, E., & Yavorsky, C. (2006). *Understanding and using advanced statistics*. Thousand Oaks, CA: Sage Publications.
- Foxall, G. (1990). *Consumer psychology in behavioural perspective*. London: Routledge.
- Freedman, J. L. (1964). Involvement, discrepancy and change. *Journal of Abnormal and Social Psychology*, 69(3), 290-295.
- Funk, D. C., & James, J. (2001). The Psychological Continuum Model (PCM): A conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review*, 4(2), 119-150.
- Funk, D. C., & James, J. (2006). Consumer loyalty: The meaning of attachment in the development of sport team allegiance. *Journal of Sport Management*, 20(2), 189-217.
- Funk, D. C., & Pastore, D. L. (2000). Equating attitudes to allegiance: The usefulness of selected attitudinal information in segmenting loyalty to professional sports teams. *Sport Marketing Quarterly*, 9(4), 175-184.
- Funk, D. C., Ridinger, L. L., & Moorman, A. M. (2004). Exploring origins of involvement: Understanding the relationship between consumer motives and involvement with professional sport teams. *Leisure Sciences*, 26, 35-61.

- Gabbott, M., & Hogg, G. (1999). Consumer involvement in services: A replication and extension. *Journal of Business Research*, 46(2), 159–166.
- Gahwiler, P., & Havitz, M. E. (1998). Toward a relational understanding of leisure social worlds, involvement, psychological commitment, and behavioral loyalty. *Leisure Sciences*, 20, 1- 23.
- Gay, L. R., Mills, G. E., & Airasian, P. (2006). *Educational research: Competencies for analysis and application* (8<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice-Hall,
- Gerdy, J. R. (2002). Sports: The all-American addiction. Jackson, MS: University of Mississippi Press.
- Giulianotti, R. (2002). Supporters, followers, fans, and flaneurs: A taxonomy of spectator identities in football. *Journal of Sport and Social Issues*, 26(1), 25-46.
- Gladden, J. M., & Funk, D. C. (2001). Understanding brand loyalty in professional sport: Examining the link between brand associations and brand loyalty. *International Journal of Sports Marketing & Sponsorship*, 3, 67–91.
- Gladden J. M., & Funk, D. C. (2002). Developing an understanding of brand association in team sport: Empirical evidence from consumers of professional sport. *Journal of Sport Management*, 16, 54–81.
- Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust Web-based studies? *American Psychologist*, 59, 93–104.
- Gough, P. J. (2008, September 17). Cowboys-Eagles “Monday Night Football” ratings: ESPN gets 18.6 million for most watched cable telecast ever. *Hollywood Reporter*. Retrieved on January 19, 2009, from [http://www.huffingtonpost.com/2008/09/17/cowboys-eagles-monday-nig\\_n\\_127034.html](http://www.huffingtonpost.com/2008/09/17/cowboys-eagles-monday-nig_n_127034.html)

- Green, S. B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research*, 26(3), 499-510.
- Groves, R. M., Dillman, D. A., Eltinge, J., & Little, R. J. A. (2002). *Survey nonresponse*. New York: Wiley.
- Ha, J. H. (2005). A conceptual model of psychological commitment based on the concept of attitude strength. Unpublished doctoral dissertation, the Florida State University, Tallahassee, FL.
- Hall, M. (2002, August 19). Taking the sport out of sports. *Street & Smith's Sports Business Journal*. Retrieved on June 11, 2008, from <http://www.sportsbusinessjournal.com/article/24076>
- Hanna, R. C., Weinberg, B., Dant, R. P., & Berger, P. D. (2005). Do internet surveys increase personal self disclosure? *Database Marketing & Customer Strategy Management*, 12(4), 342-356.
- Harris Interactive (2004, December 8). 'Different leisure activities' popularity rise and fall, but reading, TV watching, and family time still top the list of favorites. The Harris Poll #97. Retrieved on June 5, 2008, from [www.harrisinteractive.com/harris\\_poll/index.asp?PID=526](http://www.harrisinteractive.com/harris_poll/index.asp?PID=526)
- Haugtvedt, C. P., Petty, R. E., & Cacioppo, J. T. (1992). Need for cognition and advertising; Understanding the role of personality variables in consumer behavior. *Journal of Consumer Psychology*, 1, 239-260.
- Heere, B., & Dickson, G. (2008). Measuring attitudinal loyalty: Separating the terms of affective commitment and attitudinal loyalty. *Journal of Sport Management*, 2(2), 227-239.

- Hill, B., & Green, C. B. (2000). Repeat attendance as a function of involvement, loyalty, and the sportscape across three football contexts. *Sport Management Review*, 3(2), 145-162.
- Hines, M. (2004). XM Satellite scores \$650 million baseball deal. *CNET News.com*. Retrieved on June 5, 2008, from [http://news.cnet.com/XM-Satellite-scores-650-million-baseball-deal/2100-1026\\_3-5419034.html](http://news.cnet.com/XM-Satellite-scores-650-million-baseball-deal/2100-1026_3-5419034.html)
- Holleman, M. C. (2006). Fantasy football: Illegal gambling or legal game of skill? *North Carolina Journal of Law & Technology*, 8, 59-80.
- Howard, D. R., & Crompton, J. C. (2004). *Financing sport* (2nd ed.). Morgantown, WV: Fitness Information Technology.
- Homburg, C., & Giering, A. (1999). Messung von Markenzufriedenheit und Markenloyalität [The measurement of brand satisfaction and brand loyalty]. In F-R. Esch (Ed.), *Moderne Markenführung: Grundlagen—innovative Ansätze — praktische Umsetzungen* [Modern brand management: Fundamentals, new approaches, implementations] (pp. 1089–1100). Wiesbaden, Germany: Gabler.
- Hosmer, D. W., & Lemeshow, S. (2000). *Applied logistic regression* (2<sup>nd</sup> ed.). New York: Wiley.
- Hsie, L. (2003). Consumer behavior associated with professional baseball in Taiwan: An empirical model. Unpublished doctoral dissertation, University of Northern Colorado.
- Huck, S. W. (2004). *Reading statistics and research* (4<sup>th</sup> ed.). Boston: Pearson Education.
- Huynh, H. & Mandeville, G. K. (1979). Validity conditions in repeated measures designs. *Psychological Bulletin*, 86, 964-973.

- Iwasaki, Y., & Havitz, M. E. (1998). A path analytic model of the relationships between involvement, psychological commitment, and loyalty. *Journal of Leisure Research*, 30, 256–280.
- Iwasaki, Y., & Havitz, M. E. (2004). Examining relationships between leisure involvement, psychological commitment and loyalty to a recreation agency. *Journal of Leisure Research*, 36(1), 45-72.
- Jacoby, J. (1971). A model of multi-brand loyalty. *Journal of Advertising Research*, 11(3), 25- 31.
- Jacoby, J., & Chestnut, R. W. (1978). *Brand loyalty measurement and management*. New York: John Wiley & Sons, Inc.
- James, J. D. (1997). Becoming a sports fan: Understanding cognitive development and socialization in the development of fan loyalty. Unpublished doctoral dissertation, Ohio State University, Columbus.
- Jarvis, L. P., & Wilcox, J. B. (1976). *Repeat purchasing behavior and attitudinal brand loyalty: Additional evidence*. In K. L. Bernhardt (Ed.), *Marketing: 1776-1976 and beyond*. Chicago: American Marketing Association.
- Jenkins, J. (2005, October 29). Stat corner: Women and the NFL. *Sacramento Bee*, C9.
- Keat, R. (1994). Scepticism, authority and the market. In Russel Keat, Nigel Whiteley, and Nicholas Abercrombie (eds.): *The Authority of the Consumer* (pp. 23-42). London. UK: Routledge.
- Kerstetter, D. L., & Kovich, G. M. (1997). The involvement profiles of Division I women's basketball spectators. *Journal of Sport Management*, 11(3), 234-249.

- Kewley, S., Edwards, J. E., & Rosenfeld, P. (1992). Impression management, social desirability, and computer administration of attitude questionnaires: Does the computer make a difference? *Journal of Applied Psychology*, 77(4), 562-566.
- Klockars, A. J., & Sax, G. (1986). *Multiple comparisons*. Thousand Oaks, CA: Sage Publications.
- Konerding, U. (2001). Theory and methods for analyzing relations between behavioral intentions, behavioral expectations, and behavioral probabilities. *Methods of Psychological Research Online*, 6(1), 21-66.
- Krantz, J. H., & Dalal, R. (2000). Validity of Web-based psychological research. In M. H. Birnbaum (Ed.), *Psychological experiments on the Internet* (pp. 35–60). San Diego, CA: Academic Press.
- Kraus, S.J. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin*, 21(1), 58-75.
- Kwon, H. H., & Armstrong, K. L. (2004). An exploration of the construct of psychological attachment to a sport team among college students: A multidimensional approach. *Sport Marketing Quarterly*, 13(2), 94-103.
- Kwon, H., & Trail, G. (2003). A re-examination of the construct and concurrent validity of the Psychological Commitment to Team scale. *Sport Marketing Quarterly*, 12, 88–93.
- Kwon, H. H., Trail, G., K., & James, J. D. (2007). The mediating role of perceived value: Team identification and purchase intention of team-licensed apparel. *Journal of Sport Management*, 21(4), 540-554.

- Lafayette, J. (2006, August 14). DirecTV offers Sunday ticket interactive features. *Television Week*. Retrieved on May 9, 2007, from [http://findarticles.com/p/articles/mi\\_hb5268/is\\_200608/ai\\_n20456879](http://findarticles.com/p/articles/mi_hb5268/is_200608/ai_n20456879).
- Laurent, G., & Kapferer, J. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research*, 22(1), 1-53.
- Lefton, T. (2007, November 5). Dunkin' Donuts gets to pick from a dozen for representation: The Lefton report. *Street & Smith's SportsBusiness Journal*, 10(26), 12.
- Leporini, C. M. (2006, December 7). Fantasy sports bring real opportunities. *American Marketing Association - Marketing Matters Newsletter*.
- Leung, L. (2001). Gratifications, chronic loneliness, and Internet use. *Asian Journal of Communication*, 11(1), 96-119.
- Levy, D. (2005). Sports fanship habitus: An investigation of the active consumption of sport, its effects and social implications through the lives of fantasy sport enthusiasts. Unpublished doctoral dissertation, University of Connecticut: Storrs, CT.
- Lomax, R. G. (2006). Fantasy sports: History, game types, and research. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 383-392).
- Madrigal, R. (1995). Cognitive and affective determinants of fan satisfaction with sporting event attendance. *Journal of Leisure Research*, 27(3), 205-227.
- Mahony, D. F., & Howard, D. R. (1998). The impact of attitudes on the behavioral intentions of sport spectators. *International Sports Journal*, 2(2), 96-110.

- Mahony, D. F., & Moorman, A. M. (1999). The impact of attitudes on intentions to watch professional basketball teams on television. *Sport Management Review*, 2, 43-66.
- Mahony, D. F., & Moorman, A. M. (2000). The relationship between the attitudes of professional sport fans and their intentions to watch televised games. *Sport Marketing Quarterly*, 9(3), 131-139.
- Mahony, D. F., Madrigal, R., & Howard, D. R. (2000). Using the Psychological Commitment to Team (PCT) scale to segment customers based on loyalty. *Sport Marketing Quarterly*, 9(1), 15-25.
- Martin, C. (1998). Relationship marketing: A high-involvement product attribute approach. *Journal of Product and Brand Management*, 7(1), 6-26.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4, 84-99.
- McPherson, B. D. (1976). Sport consumption and economics of consumerism. In David Ball and John W. Loy (eds.). *Sport and Social Order*. Reading, MA: Addison-Wesley.
- Meek, A. (1997). An estimate of the size and supported economic activity of the sports industry in the United States. *Sport Marketing Quarterly*, 6(4), 15-21.
- Menard, S. (2002). *Applied logistic regression analysis* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research*. Thousand Oaks, CA: Sage.
- Milne, G. R., & McDonald, M. A. (1999). *Sport marketing: Managing the exchange process*. Sudbury, MA: Jones and Bartlett.



- Mondello, M. (2006). Sports economics and the media. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 277-294).
- Moon, Y. (2000). Intimate exchanges: Using computers to elicit self-disclosure from consumers. *Journal of Consumer Research*, 26(4), 323-339.
- Mullin, B. J., Hardy, S., & Sutton, W. A. (2007). *Sport marketing*. Champaign, IL: Human Kinetics.
- NFL.com (2004, November 8). NFL to remain on broadcast TV. In NFL News. Retrieved July 11, 2007, from <http://www.nfl.com/news/story/7868621>
- Nurošis, M. J. (2006). *SPSS 15.0: Statistical procedures companion*. Upper Saddle River, NJ: Prentice Hall.
- Papacharissi, Z., & Rubin, A. M. (2000). Predictors of Internet use. *Journal of Broadcasting & Electronic Media*, 44(2), 175-196.
- Park, S. (1996). Relationships between involvement and attitudinal loyalty constructs in adult fitness programs. *Journal of Leisure Research*, 28(4), 233-250.
- Pew Internet & American Life Project. (2005, June 17). *Sports fantasy leagues online*. Washington, DC: Lee Rainie.
- Pritchard, M. P. (1991). Development of the psychological commitment instrument (PCI) for measuring travel service loyalty. Unpublished doctoral dissertation, University of Oregon.
- Pritchard, M. P., & Funk D. C. (2006). Symbiosis and substitution in spectator sport. *Journal of Sport Management*, 20(3), 299-321.

- Pritchard, M. P., Havitz, M. E., & Howard, D. R. (1999). Analyzing the commitment loyalty link in service contexts. *Journal of the Academy of Marketing Science*, 27(3), 333-348.
- Quan-Haase, A., & Wellman, B. (2004). How does the Internet affect social capital? In M. Huysman and V. Wulf (Eds.) *Social capital and information technology*, (pp. 113-131). Cambridge, MA: MIT Press.
- Raney A. A. (2006). Why we watch and enjoy mediated sports. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 313-329).
- Rein, I., Kotler, P., & Shields, B. (2006). *The elusive fan: Reinventing sports in a crowded marketplace*. New York: McGraw-Hill.
- Reynolds, M. (2007). ESPN's 'Monday Night Football' ratings hit record low. *Multichannel News*. Retrieved on January 19, 2009, from [http://www.multichannel.com/article/130811-ESPN s Monday Night Football Ratings Hit Record Low.php](http://www.multichannel.com/article/130811-ESPN_s_Monday_Night_Football_Ratings_Hit_Record_Low.php)
- Robertson, T. S. (1976). Low commitment consumer behavior. *Journal of Advertising Research*, 16(2), 19-24.
- Rothschild, M. L. (1984). Perspectives on involvement: Current problems and future directions. *Advances in Consumer Research*, 11, 216-217.
- Rubin, A. (1981). An examination of television viewing motivations. *Communication Research*, 8(2), 141-165.
- Rundle-Thiele, S., & Mackay, M. M. (2001). Assessing the performance of brand loyalty measures. *Journal of Service Marketing*, 15(7), 529-546.

- Russo, C. & Walker, C. (2006, May 8). Fantasy sports growth hinges on marketing, offline efforts. *Street & Smith's Sports Business Journal*, 9(3), 21.
- Seo, W. J., & Green, B. C. (2008). Development of the motivation scale for sport online consumption. *Journal of Sport Management*, 22(1), 82-109.
- Sheppard, B. H., Hartwick, J. & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modification and future research. *Journal of Consumer Research*, 15, 325-343.
- Sherif, M., & Hoveland, C. I. (1961). *Social judgment: Assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.
- Shipman, F. M. (2001). Blending the real and virtual: Activity and spectatorship in fantasy sports. Proceedings from DAC '01: The Conference on Digital Arts and Culture. Retrieved on April 8, 2007, from <http://www.stg.brown.edu/conferences/DAC/>
- Shohlan, A., & Kahle, L. (1996). Spectators, viewers, readers: Communication and consumption in sport marketing. *Sport Marketing Quarterly*, 5(2), 11-20.
- Sivacek, J., & Crano, W. D. (1982). Vested interest as a moderator of attitude-behavior consistency. *Journal of Personality and Social Psychology*, 43, 210-221.
- Stevens, E., & Grover, R. (1998, February 16). The entertainment glut. *Business Week*, 88-95.
- Stotlar, D. K. (2005). *Developing successful sport marketing plans* (2<sup>nd</sup> ed.). Morgantown, WV: Fitness Information Technology.

- Sullivan, D. B. (2006). Broadcast television and the game of packaging sports. In Arthur A. Raney and Jennings Bryant (eds.): *Handbook of sports and media* (pp. 131-146).
- Sun, T., Youn, S., & Wells, W. D. (2004). Exploration of consumption and communication communities in sports marketing. In Lynn R. Kahle and Chris Riley (eds.): *Sports marketing and the psychology of marketing communication* (pp. 3-26). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5<sup>th</sup> ed.). Boston, MA: Pearson Education.
- Team Marketing Report. (2008). Fan Cost Index survey. Retrieved on June 5, 2008, from <http://www.teammarketing.com/fancost/>
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis*. Washington, DC: American Psychological Association.
- Trail, G. T., & James, J. D. (2001). The motivation scale for sport consumption: Assessment of the scale's psychometric properties. *Journal of Sport Behavior*, 24(1), 108-127.
- Turner, J. R., & Thayer, J. F. (2001). *Introduction to analysis of variance: Design, analysis, and interpretation*. Thousand Oaks, CA: Sage.
- Wakefield, K. L., & Sloan, H. J. (1995). The effects of team loyalty and selected stadium factors on spectator attendance. *Journal of Sport Management*, 9(2), 153-172.
- Walsh, A. J., & Giulianotti, R. (2001). This sporting mammon: A normative critique of the commodification of sport. *Journal of Sport Philosophy*, XXVIII, 53-77.

- Walters, C. G., & Bergiel, B. J. (1989). *Consumer behavior: A decision-making approach*. Cincinnati, OH: South-Western Publishing.
- Wann, D. L. (1995). Preliminary validation of the sport fan motivation scale. *International Journal of Sport Psychology*, 24, 1-17.
- Wann, D. L., & Branscombe, N. R. (1991). The positive social and self concept consequences of sports team identification. *Journal of Sport and Social Issues*, 15, 115-127.
- Wann, D. L., Grieve, F. G., Zapalac, R. K., & Pease, D. G. (2008). Motivational profiles of sport fans of different sports. *Sport Marketing Quarterly*, 17(1), 6-19.
- Weinstein, J. (2006). Are fantasy sports the future of television/internet convergence? Retrieved June 12, 2008, from <http://www.mediavillage.com/jmr/2006/10/03/jmr-10-03-06/>
- Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues*, 25, 41-78.
- Williams, C. C. (2005). *A commodified world? Mapping the limits of capitalism*. London and New York: Zed Books.
- Woodward, D. (2005). A whole new ballgame: How fantasy sports has evolved in the mass media. Unpublished doctoral dissertation, University of Texas at Arlington.
- Yim, C. K., & Kannan, P. K. (1999). Consumer behavioral loyalty: A segmentation model and analysis. *Journal of Business Research*, 44(2), 75-92.
- Yost, M. (2006). *Tailgating, sacks, and salary caps: How the NFL became the most successful sports league in history*. Chicago: Kaplan Publishing.

- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12(3), 341-352.
- Zaichkowsky, J. L. (1986). Conceptualizing involvement. *Journal of Advertising*, 15(2), 4-34.
- Zaichkowsky, J. L. (1994). The personal involvement inventory: Reduction, revision, and application to advertising. *Journal of Advertising*, 23(4), 59-70.
- Zanna, M. P., Olson, J. M., & Fazio, R. H. (1980). Attitude behavior consistency: An individual difference perspective. *Journal of Personality and Social Psychology*, 38, 432-440.
- Zeitchik, S. (2005, November 14). Nets fulfill fantasy: Sportscasts pursue data-geeks' open wallets. *Variety*, 19(1).

APPENDIX A  
SURVEY NOTICE

Dear Fantasy Football Participant,

[Individual Website], in collaboration with the Fantasy Sports Trade Association, invite you to participate in a brief online survey that will help us better understand your participation in fantasy football. This survey will provide valuable information for sport marketers and media developers in order to produce products and services that meet the needs of fantasy football participants such as yourself.

Please go to the following link to take the online survey:

**(Link to survey will go here)**

It will only take about 10-15 minutes to complete this survey. There are no right or wrong answers. The research team will take the appropriate steps necessary to maximize confidentiality of all surveys and anonymity of each respondent. Remember that your participation with this study is completely voluntary and you may refuse to participate without any consequence.

By providing your email address in the final question on the survey, you will be entered into a drawing for one of four \$100 US Savings Bonds. The drawing is optional and you do not need to enter to complete the survey.

If you have any concerns about your selection or treatment as a research participant, please contact Brendan Dwyer at [brendan.dwyer@unco.edu](mailto:brendan.dwyer@unco.edu). Having read the above and having had an opportunity to ask any questions, you understand that submitting a completed survey implies your consent to participate in this research.

Thank you for your time and feedback.

Brendan Dwyer  
Doctoral Candidate  
University of Northern Colorado

Jeff Thomas  
President  
Fantasy Sports Trade Association

## APPENDIX B

### THANK YOU/FOLLOW-UP NOTICE

Greetings Fantasy Football Participant!

About 2 weeks ago, you received an email asking you to participate in a brief online survey that will help us better understand your participation in fantasy football.

If you have already filled out an online survey, we want to thank you for your assistance. **If you have not filled out an online survey, would you please help us by visiting the following website and filling out your survey today?** The information you provide will help create enhanced products and services that meet the unique needs and wants of fantasy football participants such as yourself.

Don't miss out on the opportunity to be entered into a drawing for one of four \$100 US Savings Bonds! Thank you for your valuable contribution to our research. Your opinion matters!

Please go to the following link to take the survey:

**[Survey Link]**

If you have any questions about the survey, please contact Brendan Dwyer via email at [brendan.dwyer@unco.edu](mailto:brendan.dwyer@unco.edu).



## APPENDIX C

## SURVEY INSTRUMENT

**Informed Consent for Participation in Research**

**Project Title:** Fantasy Sports Consumer Behavior: An Analysis of Attitudes and Behavioral Intentions

**Researcher:** Brendan Dwyer, School of Sport and Exercise Science, University of Northern Colorado, Michener L-40, Greeley, CO, 80639; 970-351-2841.

**Advisor:** David K. Stotlar, Director, School of Sport and Exercise Science, University of Northern Colorado, 2590 Gunter Hall, Box 39; Greeley, CO 80639; 970- 351-1722.

You are being asked to participate in a study of fantasy football participants. The purpose of this confidential survey is to better understand your participation in fantasy football. Due to the unique nature and immense popularity of fantasy sports, participants such as yourself have an opportunity to change the way professional football is televised. Therefore, your opinions are extremely valuable.

Please take your time to complete this survey. Read each question carefully. Even if you are not certain about the exact answer to a question, mark the answer most like your opinion and proceed to the next question. Some of the questions may seem similar to you, or may not be worded exactly the way that you would like them to be. Even so, give your best estimate and continue working through the questionnaire. There are no "correct" answers to any question. The data collected in this study may be published, but **your name and other identifying information will remain anonymous**. By completing the survey, you give consent to participate in the study. Your participation is very important. Thank you for your time and assistance.

Participation requires the completion of this online survey; it should take you 15 minutes or less to complete the questionnaire. While there are no direct benefits to you, the

information you provide will help sport marketers properly package and deliver professional sports to meet the needs of fantasy sports consumers. In addition, there are no foreseeable risks to participating in this study.

Questions regarding this study may be directed to Brendan Dwyer, University of Northern Colorado, Michener L-40, Greeley, CO, 80639; 970-351-2841.

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Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please proceed with the survey by indicating your age clicking the "Next" button below if you would like to participate in this research. You may print a copy of this form to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Sponsored Programs and Academic Research Center, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1907.

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1. Are you 18 years of age or older?
  - a. Yes
  - b. No

## PAGE 2

***\*\*Please respond with regard to your MOST PREFERRED fantasy football league.***

2. Please Select Your Favorite NFL Team <drop down menu>
3. Please Select Your Most Disliked NFL Team <drop down menu>
4. Not including your favorite team or your most disliked team, please select a different teams for which your best remaining fantasy player plays <drop down menu>
5. Not including any of the teams previously selected, please select two additional NFL teams for which you feel neutral <drop down menu> (2x)

## PAGE 3

6. Including the upcoming NFL season, how many years have you played fantasy football? <text box>
7. Typically, how many fantasy teams do you own per year? <text box>
8. In your most preferred league, how many friends, family members, or co-workers participate against you?
  - a. 0
  - b. 1-3
  - c. 4-6
  - d. 7-9
  - e. 10 or more
9. Please rate the amount of skill you believe is needed to play the following fantasy football.
  - f. No Skill, All Chance
  - g. Little Skill, Mostly Chance
  - h. Some Skill, Some Chance
  - i. Mostly Skill, Little Chance
  - j. All skill, No Chance

10. This year, approximately how much money have you spent to play in your most preferred fantasy football league (i.e., league fees, magazines, etc.)?
- k. \$0
  - l. Less than \$25
  - m. \$25 to \$49
  - n. \$50 to \$99
  - o. \$100 to \$149
  - p. \$150 to \$249
  - q. \$250 to \$499
  - r. \$500 to \$999
  - s. \$1,000 or more
11. If you win your most preferred fantasy football league this year, approximately how much money will you win?
- t. \$0, we do not play for money
  - u. Less than \$100
  - v. \$100 - \$249
  - w. \$250 to \$499
  - x. \$500 to \$999
  - y. \$1,000 to \$2,000
  - z. More than \$2,000

#### PAGE 4

Please select the number which best describes your opinion about fantasy football. Although some questions may sound repetitive, it is important for you to respond to all the questions in order to use your responses. Please answer each question.

*To me, fantasy football is:*

- |                 |  |               |
|-----------------|--|---------------|
| 12. Important   | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Unimportant   |
| 13. Relevant    | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Irrelevant    |
| 14. Mean a Lot  | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Means Nothing |
| 15. Needed      | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Not Needed    |
| 16. Fascinating | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Mundane       |
| 17. Exciting    | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Unexciting    |
| 18. Appealing   | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Unappealing   |
| 19. Interesting | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | Uninteresting |

#### PAGE 5

20. I would still be committed to the <favorite team> regardless of the lack of any star players.
- Strongly Disagree 1 : 2 : 3 : 4 : 5 : 6 : 7 Strongly Agree
21. I could never switch my loyalty from the <favorite team> even if my close friends were fans of another team.
- Strongly Disagree 1 : 2 : 3 : 4 : 5 : 6 : 7 Strongly Agree
22. I would still be committed to the <favorite team> regardless of the lack of physical skill among the players.

- Strongly Disagree 1 : 2 : 3 : 4 : 5 : 6 : 7 Strongly Agree
23. It would be difficult to change my beliefs about the <favorite team>.  
Strongly Disagree 1 : 2 : 3 : 4 : 5 : 6 : 7 Strongly Agree

**PAGE 6**

24. On any given Sunday, how likely are you to watch the <favorite team> if they are on television?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
25. On any given Sunday, how likely are you to watch the <most disliked team> if they are on television and pose a threat to <favorite team>?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
26. On any given Sunday, how likely are you to watch the <team with best fantasy player> if they are on television?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
27. On any given Sunday, how likely are you to watch the <neutral team> if they are on television?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
28. On any given Sunday, how likely are you to watch the NFL team with your fantasy opponent's best player on it, if they are on television?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
29. On any given MONDAY, how likely are you to watch ESPN's Monday Night Football if the <neutral team #1> are playing the <neutral team #2>?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
30. On any given MONDAY, how likely are you to watch ESPN's Monday Night Football if the <neutral team #1> are playing the <neutral team #2>, but your fantasy match-up is dependent upon the outcome?  
Not at All Likely 1 : 2 : 3 : 4 : 5 : 6 : 7 Extremely Likely
31. On any given Sunday, if the <favorite team> are playing at the same time as the <best fantasy player's team> but on a different channel, which of these behaviors would best describe your viewership?
- I would watch the <favorite team> only
  - I would mainly watch the <favorite team>, but I would check in on the other game from time to time
  - I would switch back and forth evenly
  - I would mainly watch the <best fantasy player's team>, but I would check in on the other game from time to time
  - I would watch the <best fantasy player's team> only

**PAGE 7**

32. What is your gender?
- Male
  - Female
33. What is your age?
- <Text Box>
34. What is your marital status?

- a. Married
  - b. Separated
  - c. Divorced
  - d. Widowed
  - e. Single
  - f. Would rather not say
25. How would you classify yourself? (please select one)
- a. Asian/Pacific Islander
  - b. Black/African American
  - c. Caucasian/White
  - d. Hispanic
  - e. Multiracial
  - f. Other
35. What is the highest level of education you attained?
- a. High School
  - b. Vocational Degree
  - c. Associates Degree
  - d. Bachelors Degree
  - e. Masters Degree
  - f. Doctoral Degree
  - g. Professional Certifications
  - h. Other
36. What is your annual household income before taxes?
- a. Less than \$25,000
  - b. \$25,000 - \$49,999
  - c. \$50,000 - \$74,999
  - d. \$75,000 - \$99,999
  - e. \$100,000 - \$124,999
  - f. \$125,000 - \$149,999
  - g. \$150,000 or more
  - h. Would rather not say
37. In what state/province do you currently reside?
- a. <dropdown box>
38. Approximately how many hours do you spend on the Internet each day?
- a. <Text Box> Hours

## APPENDIX D

### PILOT STUDY RESULTS

The pilot study instituted a combination of the following three sampling plans: 1) a convenient sample of friends; 2) a network sample of friends' other fantasy football leagues, and 3) a quota sample of fantasy football participants solicited from two popular online fantasy football message boards (espn.com and yahoo.com). After receiving IRB approval, data collection for the pilot study occurred for one week in mid-July 2008. The convenient sample of friends was contacted via e-mail invitation. The e-mail consisted of a brief description of the study's purpose as well as the hyperlink to the online survey hosted by FormSite.com. The e-mail also encouraged these participants to forward the contents onto other fantasy football leagues in which they participate. A follow-up e-mail was sent out on July 26<sup>th</sup>. The quota sample solicited from two popular online message boards also began on the 23<sup>rd</sup>. A new thread, titled "Fantasy Football Survey," was added to the message board open forum. This thread contained a brief statement of purpose and the active survey hyperlink. The thread was monitored closely as potential respondents had numerous questions and comments. In total, the threads were viewed 962 times (643 on espn.com & 319 on yahoo.com).

A total 145 participants began the survey with 116 completing it (80%). Nine participants were not allowed to participate due to age restrictions. Similar to the FSTA's (2008) demographic findings, the average participant in the pilot study was a Caucasian

(94%) male (97%) with at least a bachelor's degree (51%). However, the average age (27) is much lower than the FSTA's approximation (41). Due to this age difference, the marital status (55% unmarried) and annual household income (58% with at least \$50,000) are also lower than the FSTA's results. For a more comprehensive look at the pilot study's demographics, refer to Table A-1.

**Table A-1** Demographics of pilot study sample ( $N = 116$ )

Age (n = 106)			Education (n = 109)		n	%	Income (n = 105)		n	%
Mean	27		High School	36	33%	Less than \$25,000	10	10%		
St Dev	7.603		Vocational Degree	2	2%	\$25,000 - \$49,999	16	15%		
Median	25		Associates Degree	11	10%	\$50,000 - \$74,999	21	20%		
Range	18-53		Bachelors Degree	36	33%	\$75,000 - \$99,999	20	19%		
			Masters Degree	15	14%	\$100,000 - \$124,999	10	10%		
Gender (n = 109)			n	%	Doctoral Degree	4	4%	\$125,000 - \$149,999	3	3%
Male	106	97%	Professional Certification	2	2%	Over \$150,000	7	7%		
Female	3	3%	Other	3	3%	Would rather not say	18	17%		
Marital Status (n = 106)			Ethnicity (n = 109)			Involvement Group (n = 116)				
Married	36	34%	Black/African American	2	2%	Low	31	26%		
Separated	1	1%	Caucasian	102	94%	Middle	56	49%		
Divorced	3	3%	Hispanic	2	2%	High	29	25%		
Domestic Partners	8	8%	Multiracial	1	1%					
Unmarried	58	55%	Other	2	2%					

### *Research Question 1*

Before running the two-way mixed ANOVA, reliability analysis and factorial validity were measured to ensure quality of the data scores. Cronbach's alpha was utilized to measure the scale reliability of the adapted PII. The results indicated internally consistent scores ( $\alpha = .864$ ). The results of the EFA with promax rotation confirmed the existence of two highly-correlated underlying factors with four items each: cognitive (eigenvalue = 4.34 and factor loadings > .652) and affective (eigenvalue = 1.11 and factor loadings > .426).

*Hypothesis 1.1.* The results of the two-way mixed design ANOVA for Hypotheses 1.1 and 1.2 indicated a significant main effect for the team(s) featured in the game, *Huynh-Feldt*  $F(4.103, 640) = 60.999, p < .001$ . The paired *t* test procedure, results shown in Table A-2, was then implemented to make pairwise comparisons. As predicted in Hypothesis 1.1, the results indicated the intention to watch the favorite team ( $M = 6.59$ ) was significantly greater than the intention to watch the other teams. Similarly, the intention to watch a neutral-attitude team ( $M = 4.13$ ) was significantly less than the others. However, there was no significant difference between the mean intentions to watch the team with the participant's best fantasy player ( $M = 5.26$ ), team with participant's opponent's best fantasy player ( $M = 5.15$ ), and the most disliked team when it was described as a threat to the favorite team's chances ( $M = 4.95$ ). Therefore, the results provide only partial support for Hypothesis 1.1. However, despite the statistical insignificance, the mean scores for team preference were hypothesized in the correct order.

**Table A-2** Means and standard deviations for Hypothesis 1.1

Team Playing in the Game	Likelihood of Watching - <i>M</i> (SD)
Favorite Team	6.59 (0.924) <sup>a</sup>
Team with Best Fantasy Football Player	5.26 (1.306) <sup>b</sup>
Team with Opponent's Best Fantasy Player	5.15 (1.440) <sup>b</sup>
Most Disliked NFL Team [threat]	4.95 (1.897) <sup>b</sup>
Neutral Attitude Team	4.13 (1.581) <sup>c</sup>
<b>Note.</b> Means that do not share the same letters differ at $p < .008^*$ in the Paired <i>t</i> test procedure * <i>Bonferroni Adjusted</i>	

*Hypothesis 1.2.* As predicted in Hypothesis 1.2, the results of the two-way mixed design ANOVA indicated the intention to watch ESPN's MNF when it was described as a game between two neutral-attitude teams ( $M = 5.65$ ) was significantly less than the intention to watch the same game, with the same neutral-attitude teams, but described as



affecting the participant's fantasy contest ( $M = 6.53$ ). This finding, shown in Table A-3, supports Hypothesis 1.2.

**Table A-3** Means and standard deviations for Hypothesis 1.2

Game Condition	Likelihood of Watching - M (SD)
Monday Night Football Game with Two Neutral Teams but Fantasy Implications	6.53 (0.918) <sup>a</sup>
Monday Night Football Game with Two Neutral Teams	5.65 (1.680) <sup>b</sup>
<b>Note.</b> Means that do not share the same letters differ at $p < .008^*$ in the Paired $t$ test procedure * <i>Bonferroni Adjusted</i>	

### *Research Question 2*

In order to examine the impact of fantasy football involvement on preference for watching NFL teams and games, respondents were split into three groups based on their score on the PII. Respondents with scores on the PII that were in the top 25 percent of the sample (51 and higher) were labeled as being high involved participants ( $n=29$ ) and those who were in the bottom 25 percent (41 and lower) were labeled as being low involved participants ( $n=31$ ). Respondents with scores in the middle (from 42 to 50) were eliminated from further analysis. The remaining 60 respondents had an average age of 27.21 ( $SD = 8.815$ ) and included 58 males and 2 females. The means and standard deviations for both high and low involved fans for each of the seven game types are presented in Table A-4. The two-way mixed design ANOVA revealed a significant interaction effect between involvement level and the team playing in the game  $F(12, 218) = 2.770, p < .005$ . In order to make the comparisons suggested in the three hypotheses, a test of simple effects was used with a Bonferroni adjustment to control for the experimentwise error rate ( $p < .008$ ).

**Table A-4** Means and standard deviations for Hypotheses 2.1 through 2.3

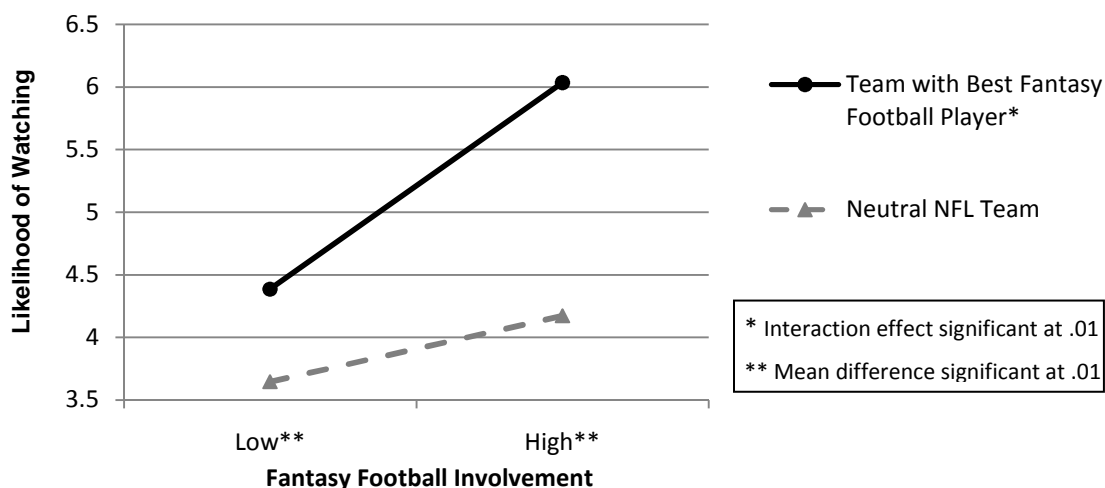
Team	Likelihood of Watching - M (SD)	
	Low Involved	High Involved
Favorite Team	6.58 (0.99)	6.76 (0.79)
Team with Best Fantasy Football Player	4.39 (1.20)	6.03 (0.94)
Team with Opponent's Best Fantasy Player	3.97 (1.30)	5.97 (0.94)
Most Disliked Team (Threat)	4.29 (2.05)	5.55 (1.94)
Neutral Attitude Team	3.65 (1.56)	4.17 (1.10)
Monday Night Football Game with Two Neutral Attitude Teams	5.16 (1.90)	6.10 (1.40)
Monday Night Football Game with Two Neutral Attitude Teams but Fantasy Implications	6.26 (1.15)	6.90 (0.41)

*Hypothesis 2.1.* When comparing preference for watching games featuring the team with the participant's best fantasy football player and a neutral attitude team, the interaction was significant (see Figure A-1). The results of the test of simple effects indicated that mean preference for watching the fantasy relevant team was significantly greater for high involved participants, while there was no significant difference between the two involvement groups when they were presented with the option of a neutral attitude team. However, in contrast to the prediction in Hypothesis 2.1, it appears that both groups reacted strongly when their fantasy player was playing and both indicated a stronger desire to watch the team under this condition than the other option. Therefore, although there was a significant interaction, the mean differences do not completely support the prediction in Hypothesis 2.1.

*Hypothesis 2.2.* When comparing preference for watching games featuring the team with the participant's opponent's best fantasy football player and a neutral attitude team, the interaction was significant (see Figure A-2). While the preference of low involved participants for watching the fantasy relevant team did not increase significantly compared to the neutral attitude team, the preference of high involved participants did increase significantly. Essentially, high involved participants wanted to watch their

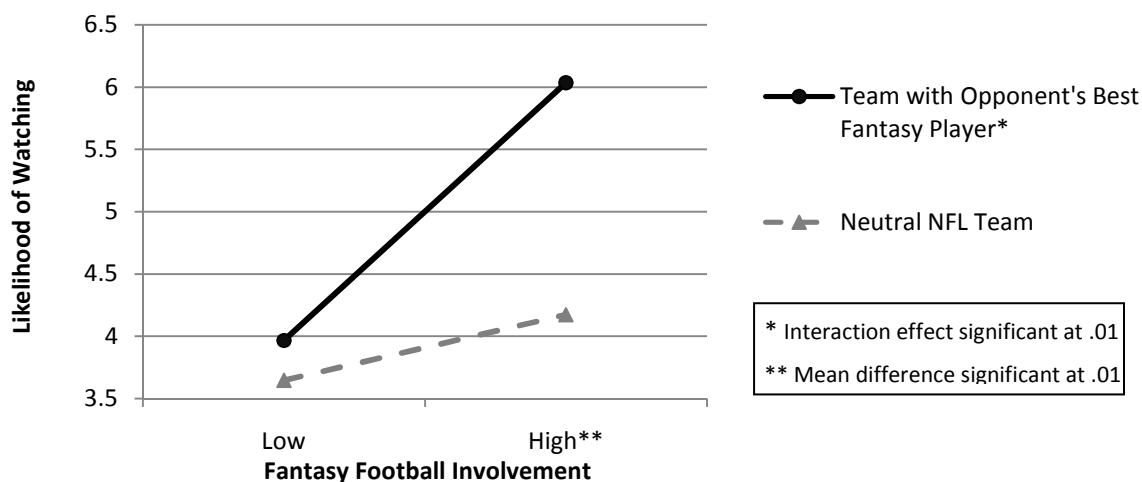
fantasy opponent's best fantasy player play, while low involved fans were significantly less interested in their opponent's best player. This supports the prediction in Hypothesis 2.2.

**Figure A-1** Mean likelihood of watching a game on television featuring an NFL team with the participant's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.



*Hypothesis 2.3.* When comparing preference for watching ESPN's MNF when the game was described as featuring two neutral attitude teams and then again with the same two neutral attitude teams but with fantasy football implications, the interaction was significant (see Figure A-3). Similar to Hypothesis 2.1, however, the results of the test of simple effects indicated that mean preference for watching the fantasy relevant game was significantly greater for high involved participants, while there was no significant difference between the two involvement groups when they were presented with the option of a two neutral attitude team match-up. Therefore, it appears that both groups reacted strongly when their fantasy contest was dependent upon the MNF game and both indicated a stronger desire to watch the game under this condition than the other option. Therefore, although there was a significant interaction, the mean differences do not completely support the prediction in Hypothesis 2.3.

**Figure A-2** Mean likelihood of watching a game on television featuring an NFL team with the participant's opponent's best fantasy football player and a neutral attitude NFL team as a function of the level of fantasy football involvement.



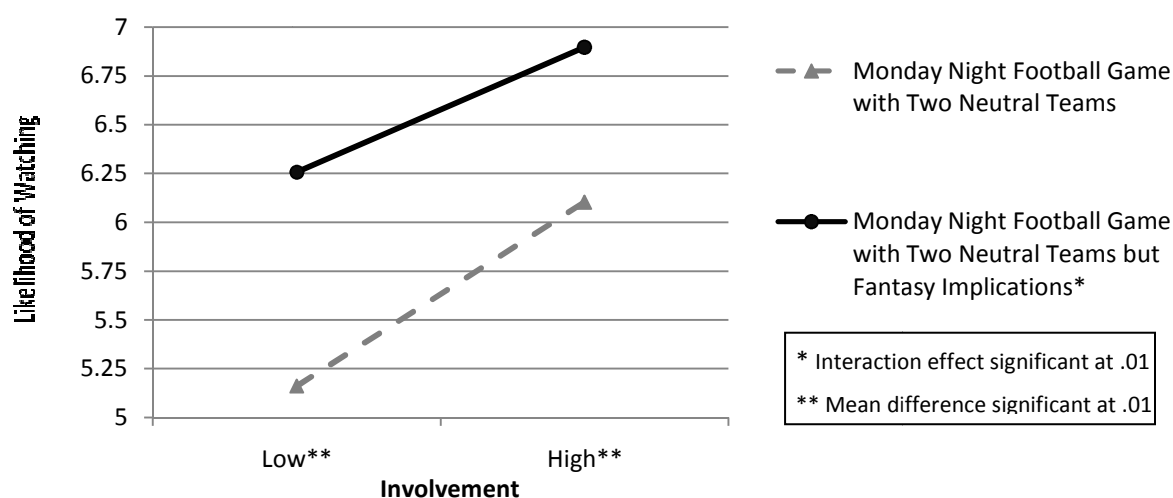
### *Research Question 3*

In order to assess the six hypotheses associated with research question 3, a logistic regression was implemented. The results indicated that the regression model successfully predicted a participant's fantasy football involvement level,  $\chi^2(7, 60) = 30.76, p < .001$ .

In addition, the model classified 80% of the participants into the correct group and accounted for 53.5% of the variance. Lastly, as shown in Table A-5, five of the seven hypotheses were supported as the amount of money spent to participate and a participant's perception of fantasy football as a game of skill were both positively related to high involvement. With regard to skill or chance, an increase of one on the skill or chance scale (5 point Likert-type scale) toward fantasy football being primarily a game of skill increases the odds of a participant being highly-involved by 8.53 times. In addition, the number of years played was negatively related to involvement, and the number of fantasy football teams owned and number of hours on the Internet per day were not significantly related. Interestingly, hypothesis 3.3 was not supported, as the results

indicated number of family, friends, or co-workers competing against was not significantly related to fantasy football involvement. This finding questions the social ramifications of becoming highly-involved with fantasy sports, such as potential alienation or separation from relationships and social groups.

**Figure A-3** Mean likelihood of watching ESPN's MNF game between two neutral attitude NFL teams and a game with two neutral attitude NFL teams and fantasy implications as a function of the level of fantasy football involvement.



#### Research Question 4

Prior to running the final statistical procedure, Cronbach's alpha was examined for the ALTS scores to ensure reliability of the scale. The results indicated that the scale scores were internally consistent,  $\alpha = .849$ . The results of the independent samples  $t$  test supported hypothesis 4.1 by determining that despite a participant's enhanced interest in a group of heterogeneous NFL players, the level of fantasy football involvement is not related to an individual's attitudinal loyalty to their favorite NFL team,  $t(37.112) = -1.953, p = .058$ .

**Table A-5** Predictor variables in logistic regression equation for hypotheses 3.1 – 3.7.

Predictor Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Skill or Chance*	2.144	0.693	9.569	1	0.002	8.533
# of Years Played*	-0.312	0.135	5.318	1	0.021	0.732
Amount of Money Spent*	0.609	0.299	4.167	1	0.041	1.839
# of Teams Owned	-0.121	0.199	0.371	1	0.543	0.886
# of Friends & Family Participating Against	0.105	0.351	0.090	1	0.764	1.111
# of hours on the Internet/Day	0.360	0.231	2.426	1	0.119	1.434
Age	0.598	0.478	2.789	1	0.217	1.008
Constant	-8.611	3.014	8.163	1	0.004	0.000

\* Significant at .05