2008

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An Analysis of Spectator Motives in an Individual Combat Sport: A Study of Mixed Martial Arts Fans

Seungmo Kim, T. Christopher Greenwell, Damon P. S. Andrew, Janghyuk Lee, and Daniel F. Mahony

Abstract

The purpose of this study was to examine customers of an emerging spectator sport, Mixed Martial Arts (MMA). Whereas conventional sport spectator motivation research has typically examined motivations of spectators attending established team sports, this study is distinctive in that it applies motivation research to an individual sport rather than a team sport and to an emerging sport rather than a more established sport. The following ten motives were identified based on a review of the current literature: drama/eustress, escape, aesthetics, vicarious achievement, socializing, sport interest, national pride, economic factor, adoration, and violence. Participants attended a local amateur event, held in June 2006, in a mid-sized Midwestern city. Overall, sport interest and drama were the highest rated motives. There were gender differences in motives, with males indicating that sport interest, economic, and violence were significantly stronger.

“"The surprising and dramatic increase in interest for the sport of MMA in the last 10 years raises several questions for sport managers and researchers.”\n
Introduction

In recent years, a new sport, Mixed Martial Arts (MMA), has emerged, generating interest from television viewers, spectators, and participants around the world. MMA is a combat sport which combines elements of various martial arts disciplines such as boxing, wrestling, jiu-jitsu, and kickboxing. Combatants win by either knocking out the opponent, forcing the opponent to submit, or by judges’ decision. This new sport has been experiencing exponential growth in recent years. For example, the leading American MMA promoter, the Ultimate Fighting Championship (UFC), presented “UFC: Final Chapter” on October 10th, 2006, which achieved record ratings for Spike TV and the UFC. This two-hour, live UFC event drew a 3.1 overall rating, while the previous record was a 2.0 overall rating from the live season finale of “The Ultimate Fighter 3" reality series on June 24th, 2006. The main event on the card, a fight between Shamrock and Ortiz, drew 1.6 million viewers in the 18-to-34-year-old male demographic, which is the primary target of UFC, while the MLB playoffs between the A’s and the Tigers on FOX drew only 1.1 million viewers (UFC, 2006).

Further, UFC television events now draw better cable ratings in key demographics than NBA, NHL, and MLB games, and pay-per-view revenues have grown to levels comparable to major boxing and wrestling events (Hamilton, 2006; Scelfo, 2006). One can easily see a dramatic increase in interest for the sport of MMA by observing not only TV ratings but also attendance at live events throughout the world. Pride
Fighting Championships, one of the more popular MMA promoters in Southeast Asia drew 90,107 fans to Tokyo National Stadium in Japan on August 28th, 2002. In March 2005, K-1, a standing fighting type of MMA in Japan, was held in Korea, and all 15,000 tickets were sold.

Along with the recent success of the UFC in the United States, a multitude of other professional promoters such as the International Fight League (IFL), King of the Cage (KOTC) and Elite XC have emerged on television and pay-per-view. On a smaller scale, many regional promoters have appeared around the world offering live professional and amateur fight cards. This growth is significant considering the sport was non-existent prior to 1993. The surprising and dramatic increase in interest for the sport of MMA in the last 10 years raises several questions for sport managers and researchers. For example, what is attracting customers to watch or attend MMA events? Are the motivations different from the motivations to watch or attend mainstream sports? Even though interest in MMA throughout the world is increasing and the sport seems to be headed for long-term success, the sport still faces many challenges to competing with existing major sports and other emerging sports. In order for the sport to survive in this highly competitive environment, a better understanding of the factors attracting fans to the events is crucial not only for maintaining this surprising success but also to foster growth in the future. However, there have been no efforts in the sport marketing literature to explain why people are willing to attend the events and/or watch them on TV. Therefore, there is a need for research specifically related to MMA fans and their motives in order to allow sport marketers to make educated decisions about promoting these events. Further, research in this area should enhance the sport management literature by adding to the understanding of emerging sports.

Mixed Martial Arts

In 649 B.C., the sport of pankration was introduced into the Olympic Games. The name came from a combination of two Greek words, pan, meaning "all," and kratos, meaning "powers." Pankration is described as a mixture of Hellenic boxing and wrestling. Pankration is considered to be the origin of MMA. In November 1993, the sport of MMA was born when the first UFC event was held in Denver. Throughout the first four events, the sport, which offered real fighting with limited rules and restrictions to live audiences and PPV viewers, was a relative success with American viewers. However, UFC was having a difficult time surviving due to negative public perceptions about its violence and brutality. Arizona Senator John McCain was successful in getting MMA banned in all but three states in America, and UFC was removed from 90% of the country's pay-per-view providers (Wertheim, 2007).

After struggling from 1997 to 2001, the sport reemerged in 2001 with the sale of the UFC franchise to Zuffa, LLC. In an attempt to change of the perceptions of the sport, UFC repositioned the sport, which played an important part in the return of the sport to pay-per-view (Wertheim, 2007). Compared to the earlier version of UFC, which allowed anything except eye gouging and biting, the new rules included five weight classes, rounds, time limits, a list of over 31 fouls, and eight possible ways for the fight to end. These changes helped to legitimize the sport. Since 2001, interest in UFC in America has grown, resulting in growth in both pay-per-view purchases and television ratings.

"... if MMA promoters are going to build on their early success, it is critical for them to understand fan's motives to attend MMA events and watch them on TV."

UFC, Pride FC, and K-1 are considered the top promoters of the sport of MMA. Pride FC was established on October 11th, 1997, in the Tokyo Dome, when Nobuhiko Takada, a Japanese wrestling hero, challenged Rickson Gracie, an undefeated Gracie Jiu-Jitsu legend from the Gracie family. The one-time event was a big success in Japan and later reemerged as a revenge match on October 11th, 1998. While UFC in America was having difficulty surviving, Pride FC utilized this opportunity to extend its business by inviting UFC fighters to its events. In fact, Pride FC has attempted to expand its business globally. Pride FC was broadcast in America for the first time on May 13th, 2000, and DSE became the first foreign-based company to be granted a license by the Nevada State Athletic Commission, which paved the way to open the first event outside of Japan. In addition, Toy Head-Quarter (THQ), a video game company, released the Pride FC video game for the PlayStation 2 platform in February 2002, which helped increase the popularity of Pride FC (Pride FC, 2006).

K-1 was introduced in 1993 by Master Kazuyoshi Ishii at the Yoyogi Dai-Ichi stadium in Tokyo. The first K-1 Grand Prix was held in a standard boxing ring. All 10,000 seats were sold out for the first tournament. While UFC and Pride FC allow grabbing and ground techniques, K-1 is a competition to determine the single best stand-up fighter in the world utilizing karate, kung-fu, tae-kwon-do, and kick-boxing. In order to be a champion at the highest level, fighters from all over the world compete in a year-long series of regional, qualifying, and elimination tournaments culminating in the prestigious Tokyo Dome Final at the end of each
year. Pride FC and K-1 have been widely accepted by MMA fans in Japan and recent matches between the two leagues have further increased fan interest. Recently, the World K-1 GP was held in Korea in order to help increase its business throughout the world (K-1, 2006).

As stated above, the sport of MMA has gotten more attention and has been recognized as a legitimate sport. However, if MMA promoters are going to build on their early success, it is critical for them to understand fans’ motives to attend MMA events and watch them on TV. An understanding of fan motives will allow sport marketers to both attract new fans and to build on the initial interest of current fans. In an increasingly competitive sport market place, increasing the size of the fan base and maintaining the interest of these fans are both very important in ensuring long term financial viability.

“The majority of research into the different motives that drive sport spectators has dealt with traditional team sports. In addition, the context of combative sports has yet to be explored.”

Sport Motives
Sport fans and spectators watch or attend sporting events for different reasons, and identifying their motivations is critical to understanding and satisfying these consumers. Researchers have identified key motivation factors in past research and have developed scales to measure the motives of sport consumers (Funk, Mahony, & Ridinger, 2002; Kahle, Kambara, & Rose, 1996; Milne & McDonald, 1999; Sloan, 1989; Trail & James, 2001; Wann, 1995). One of the earliest scales was Wann’s (1995) Sport Fan Motivation Scale (SFMS). This scale identified eight factors, represented by 23 items, to measure the following motives: eustress, self-esteem, escape from daily life, entertainment, economic factors, aesthetics, group affiliation, and family needs. Although the scale’s properties were considered sufficient in the original study by Wann, several validity problems were later identified within the SFMS (Trail & James, 2001).

Trail and James (2001) evaluated previous scales (Wann, 1995; Milne & McDonald, 1999) and proposed the Motivation Scale for Sport Consumption (MSSC), featuring nine different factors to explain the motives of the fans watching or attending sport events. These motives were vicarious achievement, acquisition of knowledge, aesthetics, social interaction, drama, physical attractiveness of the participants, escape, family, and physical skill of the participants. Trail, Fink, and Anderson’s (2003) Model of Sport Spectator Consumption suggested sport fans attend sporting events due to one or a combination of these motives.

Funk, Mahony, Nakazawa, and Hirokawa (2001) reviewed previous literature concerning fan motivations to develop the Sport Interest Inventory (SII), which included ten factors and 30 items to explain various levels of consumer support for a specific sport, women’s soccer in the United States. Later, Funk et al. (2002) enhanced the original SII with four additional factors that were identified using qualitative analysis of open-ended questions in the 2001 study. Compared to the previous two scales, the SII attempted to include additional factors to capture the unique aspects of the particular sport event. In all, the 14 factors of SII include role models, excitement, drama, wholesome environment, aesthetics, entertainment value, interest in the sport, interest in team, support women’s opportunity in sport, bonding with family, national pride, vicarious achievement, socialization, and interest in player.

These three scales have some similarities because the scales were developed based on prior sport sociology theories and other scales (Hansen & Gauthier, 1989; Kahle et al., 1996; Madrigal & Howard, 1995; Sloan, 1989; Zillmann & Paulus, 1993). In terms of similarities, aesthetics, family, socializing, vicarious achievement, and drama were identified as motives of sport consumers by all three scales, even though some of them were labeled differently. The socializing factor was identified as a group affiliation by the SFMS, social interaction by the MSSC, and social opportunities by the SII. “Eustress” and “self-esteem” in the SFMS were respectively termed “drama” and “vicarious achievement” in both the MSSC and SII. Some factors were not recognized in all of the scales. For example, entertainment was only acknowledged in the SFMS and the SII, and escape was only recognized in the SFMS and the MSSC. Further, unique motivation factors, such as the economic (gambling) factor within the SFMS, acquisition of knowledge, physical attractiveness of the participants, and physical skills of the participants within the MSSC, and national pride, players as role models, wholesome environment, interest in team, interest in sport, interest in player, and support for women opportunities within the SII, differentiate the scales from each other.

Given the plethora of sport spectator motives that have been uncovered in prior research, it is perhaps not surprising that researchers have recently embarked on a quest to bring parsimony to the study of these motives (James, Trail, Wann, Zhang, & Funk, 2006). These researchers have attempted to ascertain which motives may be more relevant to a wide range of sports versus those that may be more germane to a specific setting. The findings of their study indicate self-esteem
(i.e., vicarious achievement), aesthetics, drama, escape, and social interaction demonstrate applicability across a wide range of sport settings. While the results of James et al. (2006) have potential theoretical (e.g., development of a generalizable motivation theory for spectator sport) and applied (e.g., marketers with a limited budget to market a wide range of sport may focus on five motivational factors) applications, the majority of research indicates individual motives should be rationalized for each sport (Bilyeau & Wann, 2002; Funk, Mahony, & Ridinger, 2002; James & Ridinger, 2002; Mahony, Nakazawa, Funk, James, & Gladden, 2002).

Even though previous researchers have provided a general idea about the motives of sport consumers, James and Ross (2004) noted the effort to identify and measure these motivations in specific sports is still lacking. The research of Bilyeau and Wann (2002), James and Ridinger (2002), and Funk, Mahony, and Ridinger (2002) illustrate motives of sport consumers may differ regarding the type of sports such as artistic sports (e.g., gymnastics and synchronized swimming) or combative sports (e.g., wrestling, mixed martial arts, and boxing). The scientific study of sport fan motives has emerged only within the past decade, so it is not surprising that fan motivations in a limited number of sports have been explored. The majority of research into the different motives that drive sport spectators has dealt with traditional team sports. In addition, the context of combative sports has yet to be explored. Given the limited number of studies addressing the motives of individual sport spectators and the lack of spectator motive research concerning combative sports, an analysis of spectator motivations of mixed martial arts fans would fill a significant gap in the literature. Further, the sport of MMA is especially important to study due to its uniqueness as one of rapidly growing emerging sports in not only the United States, but also in other parts of the world.

**Purpose of Study**

The purpose of this study is to examine customers of an emerging spectator sport, Mixed Martial Arts (MMA) by exploring the experiences and motivations of consumers attending a MMA event. This study also investigates differences in motives between male and female fans and utilizes the motives to understand media consumption. In order to accomplish this purpose, a new instrument was developed incorporating previously identified motives as well as additional motives unique to MMA customers. Further, this study sought to expand sport spectator motivation research by applying motivation research to an individual sport rather than a team sport and to an emerging sport rather than a more established sport. Ultimately, the results of this study can be utilized by sport marketers to develop appropriate strategies in order to attract and retain MMA fans.

**Method**

**Instrument Development**

Developing the instrument for the current study involved six steps: (1) ten motives were identified based on previous research, (2) a panel of experts analyzed the possible items to measure the ten factors, (3) data from a representative sample were collected from a local amateur event, held in February 2006, (4) Cronbach's alpha values were checked to increase reliabilities of the factors and reduce the number of items, (5) based on the results of the pilot study, the ten factors, each represented by three items, were developed with seven point Likert scales anchored by Strongly Disagree (1) and Strongly Agree (7), and (6) 24 other items were added to collect general information, including fans' demographic data, MMA experiences, and media usage.

**Fan Motives.** In order to identify the fan motives for the current study, the authors examined motives used in previous scales, particularly those that were commonly supported across several sports. Drama, escape, aesthetics, vicarious achievement (i.e., self-esteem), and social interaction were selected for this study because prior studies supported the inclusion of these factors (Funk et al., 2002; Trail & James, 2001; Wann, 1995), and James et al. (2006) asserted that these motives were applicable across a wide range of sport settings. Furthermore, sport interest (i.e., the extent to which support for the event develops from an interest in the sport) and national pride (i.e., the extent to which the sport may be seen as a way to demonstrate national superiority) were added from the SII (Funk et al., 2002), and the economic (i.e., the extent to which fans are motivated by potential monetary gains through wagering on sports) factor was added from the SFMS (Wann, 1995) to address some of the unique aspects of MMA. Therefore, three items for the following eight motives were adapted from the literature: drama (Funk et al., 2002; Trail & James, 2001), escape (Wann, 1995), aesthetics (Trail & James, 2001; Wann, 1995), vicarious achievement (Funk et al., 2002; Trail & James, 2001), social interaction (Trail & James, 2001; Wann, 1995), sport interest (Funk et al., 2002), national pride (Funk et al., 2002), and economic (Wann, 1995). Finally, two novel factors were proposed that would relate to the uniqueness of the sport of MMA. After careful consideration, the motives of adoration-hero worship and violence/cruelty were added.
The motive of adoration/hero worship describes the extent to which fans are attracted to athletes who are heroic and appear unbeatable (Funk et al., 2002). According to Stevens, Lathrop, and Bradish (2003), a sport hero can be recognized for their athletic abilities and achievement in high level competitions. An athlete as a role model can influence other people’s attitudes and behaviors related to a product or a company (see French & Raven, 1959, for a classic discussion of this relationship). When a fan’s favorite fighter seems unbeatable, the fighter can become a role model. Because it is an individual sport, MMA fans may more likely attach to their favorite fighters than to athletes in some other sports. The items used to measure adoration/hero worship were, “When a fighter appears to be unbeatable he becomes a hero,” “MMA fighters are my role models because of their highly advanced skill,” and “I watch MMA to witness greatness.”

“What may be surprising to some is that two-thirds of the audience had some education beyond high-school and half of the audience reported incomes over $50,000, which contradicts critics’ claims that the sport only attracts lower-class spectators.”

The motive of violence or cruelty refers to the extent to which fans may enjoy the level of violence that exists in heavy contact sports like boxing, football, ice hockey, and rugby. In those sports, certain forms of intimidation and violence have been widely accepted as strategies for success. Further, intimidation and violence serve as factors responsible for enhancing the dramatic elements of these sports for spectators (Goldstein & Arms, 1972; Coakley, 2006). Bryant, Comisky, and Zillman (1981) and DeNeui and Sachau (1996) found fans’ level of enjoyment increased as the level of violence increased in football and hockey. In fact, some fans become more interested when the action is more brutal and violent. Since MMA is considered to be more realistic than other combat sports, the associated violence with one-on-one combat may be particularly attractive to fans of the sport. The items used to measure to violence were, “I like the matches more when they get bloody,” “I enjoy the violence of MMA,” and “I like MMA because it has more violence than other sports.”

Media Consumption Behavior. Based on the results of the pilot study, three media consumption items (adapted from Fink, Trail, & Anderson, 2002) were incorporated in the present study. The items for media consumption were measured with seven point Likert scales anchored by Strongly Disagree (1) and Strongly Agree (7) and included “I read about MMA news over the Internet,” “I watch MMA events on television,” and “I watch MMA reality shows on television.”

Demographics. Demographic information including gender, age, marital/household status, educational level, annual household income, and ethnicity were collected from participants in the present study.

MMA Experience and Preferences. In terms of the MMA experience, two items, including “How did you find out about Mixed Martial Arts (MMA) for the first time?” and “How many MMA events have you attended?,” were asked. To measure preferences of MMA fans, the following two items were included, “Which of the following is your favorite MMA event?” and “Which of the following is your favorite weight class?”

Participants

Given that the purpose of this study was to identify the reasons why fans attend MMA events, the participants of the survey were limited to existing or current fans of MMA. Data were collected from spectators of a local amateur event, held in June 2006, in a mid-sized Midwestern city. Spectators at this event provided an ideal sample as it was a relatively new event in an area where MMA competitions had not previously existed, implying the majority of customers were new to the sport and reflected the recent growth of the sport.

With the event organizer’s permission, questionnaires were distributed to spectators sitting in randomly selected seats prior to the beginning of the opening ceremony. Among 270 distributed questionnaires, 235 questionnaires were returned (87% response rate), and 208 were usable for the study. In order to participate in this survey, respondents were limited to adults who were older than 18 years old. The crowd at the event was mostly male as the ratio of males (n = 160 for 76.9%) and females (n = 48 for 23.1%) was approximately three to one. The youngest age-group (18-24) was most represented with 66 participants (31.7%), followed by the 25-29 years age-group with 59 participants (28.4%). The level of education among study participants was varied as 30.8% had a high school diploma, 35.1% had some college and 31.8% had either an undergraduate or graduate degree. The majority of the crowd was white (87.9%) and reported household incomes over $50,000.

Data Analysis

A confirmatory factor analysis and a Cronbach internal consistency analysis were conducted to evaluate construct validity and inter-item reliability. Descriptive statistics were calculated to assess overall demographics, MMA experiences, MMA preferences, and motives to attend and watch MMA events. A correlation analysis of the sport motivation factors was conducted to...
examine associations among the factors. One-way ANOVA (Analysis of Variance) was used to examine gender differences in MMA fan motivation. Subsequent to the ANOVA, backward deletion regression analyses were performed separately for male and female groups to examine the relationship between MMA fan motivations and fans' media consumption behavior. Backward deletion regression analyses sequentially deleted weaker, non-contributing variables and identified the remaining contributing variables of value to each regression equation.

**Results**

*Scale Validity/Reliability*

A confirmatory factor analysis indicated a good fit of the model to the data (RMSEA = .063). Cronbach Alphas for each motivational factor and a correlation matrix among ten motives are reported in Table 1. Cronbach Alphas (α) for each of the ten motivations were computed to verify internal consistency. The range of Cronbach coefficients of the factors was from α = 0.749 (drama) to α = 0.926 (sport interest); therefore, all coefficients exceeded the recommended benchmark of .70 (Nunnally & Bernstein, 1994). All factors showed the highest Cronbach Alphas with three items except violence, which had higher reliability (α = 0.917) with two items; therefore, as an added caution, the weakest item from the violence motive ("I like MMA because it has more violence than other sports") was excluded from future analysis. Although most of the motivations were significantly correlated, the relationship between the economic factor and drama was not significant.

**Preferences and Motives**

Descriptive statistics were calculated for spectators’ MMA experiences, MMA preferences, and motives to attend and watch MMA events. Word of mouth was important, as 33.5% of attendees were exposed to the sport of MMA for the first time by their friends or colleagues. 34 participants (17.8%) indicated that Spike’s television series “The Ultimate Fighter” had provided their introduction to the sport, followed by watching matches through pay-per-view (n = 32 for 16.8%). 101 participants (48.6%) indicated that they were attending a MMA event for the first time, while 107 participants (51.4%) had previously attended other MMA events.

Among MMA events, participants (81%) overwhelmingly indicated UFC as their favorite MMA event. Surveyed participants were also asked to indicate their favorite weight class. Preferences were divided among welterweight (n = 50 for 26.5%), middleweight (n = 45 for 23.8%), light heavyweight (n = 31 for 17.4%), and heavyweight (n = 33 for 17.5%) weight classes.

Table 2 shows the means and standard deviations for motivations by gender. The means for each motive ranged from a low for economy (M = 2.68) to a high for sport interest (M = 5.53). Drama (M = 5.52) was the second most important factor for spectators at the event to attend or watch MMA events followed by aesthetics (M = 5.11), social reasons (M = 4.63), violence (M = 4.59), vicarious achievement (M = 4.32), and adoration (M = 4.32). However, escape from normal life, national pride, and economic motives were below the scale midpoint (M = 4.00).

**Gender Differences**

To examine the presence of any gender differences in MMA fan motivation, a one-way ANOVA was calcu-

### Table 1

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<tr>
<td>Sport</td>
<td>(α=.926)</td>
<td></td>
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<td></td>
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<tr>
<td>Drama</td>
<td>.444(**)</td>
<td>(α=.749)</td>
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<td></td>
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<tr>
<td>Vic.</td>
<td>.438(**)</td>
<td>.340(*)</td>
<td>(α=.853)</td>
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<tr>
<td>Esc.</td>
<td>.345(*)</td>
<td>.149(*)</td>
<td>.506(*)</td>
<td>(α=.825)</td>
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<td>Eco.</td>
<td>.171(*)</td>
<td></td>
<td>.213(*)</td>
<td>.515(*)</td>
<td>(α=.901)</td>
<td></td>
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<tr>
<td>Aesth.</td>
<td>.509(**)</td>
<td>.469(**)</td>
<td>.476(**)</td>
<td>.396(**)</td>
<td>.126(*)</td>
<td>(α=.823)</td>
<td></td>
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<tr>
<td>Adore</td>
<td>.433(**)</td>
<td>.245(*)</td>
<td>.572(**)</td>
<td>.576(**)</td>
<td>.377(**)</td>
<td>.542(**)</td>
<td>(α=.860)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vio.</td>
<td>.318(**)</td>
<td>.151(*)</td>
<td>.258(*)</td>
<td>.379(**)</td>
<td>.301(**)</td>
<td>.235(**)</td>
<td>.321(**)</td>
<td>(α=.917)</td>
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<tr>
<td>Nat.</td>
<td>.295(*)</td>
<td>.147(*)</td>
<td>.376(**)</td>
<td>.587(**)</td>
<td>.432(**)</td>
<td>.291(**)</td>
<td>.505(**)</td>
<td>.390(**)</td>
<td>(α=.885)</td>
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<td>Soc.</td>
<td>.369(**)</td>
<td>.267(**)</td>
<td>.318(**)</td>
<td>.365(**)</td>
<td>.187(**)</td>
<td>.376(**)</td>
<td>.321(**)</td>
<td>.222(**)</td>
<td>.443(**)</td>
<td>(α=.851)</td>
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Table 2. Means and Standard Deviations Motivations by Gender

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<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
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<tr>
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<td>5.67</td>
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<tr>
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<td>1.55</td>
<td>5.06</td>
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<td>Socializing</td>
<td>4.63</td>
<td>1.64</td>
<td>4.62</td>
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<tr>
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<td>4.50</td>
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<td>4.66</td>
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<td>4.32</td>
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<td>4.24</td>
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<td>National Pride</td>
<td>3.82</td>
<td>1.83</td>
<td>3.85</td>
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<td>Economic Factor</td>
<td>2.68</td>
<td>1.83</td>
<td>2.84</td>
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</tbody>
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lated, and significant gender differences were found in sport interest, \( F(1, 206) = 5.862, p < .05 \), the economic factor, \( F(1, 206) = 4.93, p < .05 \), and the violence factor, \( F(1, 206) = 5.94, p < .05 \). Because significant motive differences were found on the basis of gender, separate equations regressing spectator motives on media consumption were calculated for each gender to provide more specific information to sport marketers regarding the relevant motives for each gender. The overall model for the male group was significant, \( F(10, 149) = 17.945, p < .001 \), Adjusted \( R^2 = .512 \). Through backward regression to remove non-contributing variables, sport interest, vicarious achievement, and national pride remained as significant predictors of media consumption. The model reflecting the remaining variables was significant, \( F(3, 156) = 60.579, p < .001 \), Adjusted \( R^2 = .529 \), indicating that 53% of the variance in media consumption was explained by sport interest, vicarious achievement, and national pride. The Standardized Coefficient (β) indicated that sport interest (β = .668) explained the most variance, followed by vicarious achievement (β = .498) and national pride (β = -.125).

The overall model for the female group was also significant, \( F(10, 37) = 3.530, p < .01 \), Adjusted \( R^2 = .350 \). Through backward regression to remove non-contributing variables, sport interest and drama remained as significant predictors of media consumption. The model reflecting the remaining variables was significant, \( F(2, 37) = 16.983, p < .001 \), Adjusted \( R^2 = .405 \), confirming a positive relationship between sport interest and media consumption and between drama and media consumption. The Standardized Coefficient (β) indicated that drama (β = .407) explained the most variance, followed by sport interest (β = .372). The result of the female model indicated that 40.5% of the variance in media consumption was explained by sport interest and drama.

Discussion

The current study expands existing research on sport fan motivation to provide insight into the MMA phenomenon. With the dramatic growth of MMA, it is important to understand the characteristics and motives of customers attending events in order to develop appropriate marketing strategies. Further, it extends existing research by examining sport consumption motives in an individual sport rather than a team sport and in an emerging sport rather than a more established sport.

Considering the newness of the sport, it is important to gain an understanding of who comprises the audience for an MMA event. Spectators in this study were mostly young males, which is not surprising considering how the sport has been promoted. What may be surprising to some is that two-thirds of the audience had some education beyond high-school and half of the audience reported incomes over $50,000, which contradicts critics’ claims that the sport only attracts lower-class spectators. Taken together, these results suggest potential for financial growth as MMA attracts an audience that is attractive to advertisers.

Another key point concerns the methods in which spectators were introduced to the sport, considering nearly one-half were attending for the first time. Given that there is little history of mainstream media coverage of the sport, it is not surprising that one-third of the spectators in the sample were attracted by friends and family, implying word-of-mouth may be the most effective way for reaching new customers. Activities designed to generate word-of-mouth such as unique experiences, special events, and viral marketing are
often effective in communicating with hard to reach market segments (Greenwell & Andrew, 2007).

Television has also played a key role in introducing customers to the sport. Although pay-per-view has been the primary source of distribution throughout the sport's history, the "Ultimate Fighter" reality series, which debuted on Spike TV in January of 2005, was just as important in reaching new customers. Through its reality series format, the show was able to deliver information about fighters, training techniques, fight strategies, and rules of the sport that had in the past only been accessible to the most hard-core supporters. Further, most episodes of the series featured a fight between series participants, allowing customers to sample a product that had almost exclusively been on pay-per-view prior to the series. This finding illustrates the power of using mass distribution and non-traditional formats to introduce new customers to the sport.

**Motivations to watch mixed martial arts**

The strongest motive for spectators in this study was sport interest. As an emerging sport, MMA appears to have been successful in inspiring sport fans' interest in the sport, and MMA fans are attracted to attend events and watch matches because they like the sport itself. This finding is notable considering the newness of the sport. Whereas it may have been a novelty just a few years ago, this finding indicates consumers are beginning to consider themselves MMA fans and follow MMA as a legitimate sport rather than the spectacle it was promoted as during its early history. Much of this finding may be attributed to the success of the "Ultimate Fighter" reality television series. Products in the introductory stage of the product life cycle (Gorchels, 2000; Levitt, 1965) need to generate awareness and encourage product trial. The "Ultimate Fighter" series not only generated awareness for MMA but educated potential consumers about the rules, athletes, and culture associated with the sport. These results suggest MMA marketers should continue their efforts to educate fans and potential fans about the different fight styles, techniques, and unique aspects of the sport in order to expand their fan base by building interest among new consumers.

Drama and aesthetics were the next two highest rated motives illustrating that MMA fans appreciate close fights and appreciate the beauty and strategy of the sport. This result suggests that MMA fans may prefer fights based on well-prepared strategies and trained fighters rather than simple bloody fights without any definite fight strategy. The finding that MMA fans preferred heavyweight class the least in this study could be explained by the fact that the style of this class relies more on fighters' physical strength rather than fighters' skills and techniques. These results suggest MMA marketers should continue to focus their marketing efforts on the excitement and unpredictability provided by good, close fights. In addition, they should continue to provide various contrasts of fighting styles because MMA fans appreciate the beauty of fights according to individual fighters' styles.

Contrary to the beliefs of MMA critics, violence was only the fifth highest rated motive. While combat sports are, at their core, violent, the results of this study illustrate that consumers may appreciate other aspects like aesthetics and drama more. In addition, it is important to note that violence was much lower rated than sport interest. During the sport's introduction, marketers focused on the violence and the "no rules" aspects, which led critics to characterize it as barbaric or gladiatorial violence (Wertheim, 2007). However, MMA marketers, UFC in particular, later changed the rules and tried to educate the public about rule changes to protect fighters and introduce new strategies. Some believe this has had a positive influence on changing the perceptions of the sport and

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<tr>
<th>Variable</th>
<th>B</th>
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<th>β</th>
<th>R²</th>
<th>Adj. R²</th>
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<td>.668***</td>
<td>.538</td>
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<td>.198***</td>
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<td>.057</td>
<td>-.125*</td>
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<tr>
<td>Sport Interest</td>
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<td>.139</td>
<td>.372**</td>
<td>.430</td>
<td>.405</td>
<td>16.983**</td>
</tr>
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<td>.550</td>
<td>.168</td>
<td>.407**</td>
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Note. *p<.05. **p<.01. ***p<.001.
helped lead to the rapid growth of its popularity (Graham, 2007). While there is no data on the interest in the sport during its infancy, the fact that sport interest was the strongest motivation in the current study would appear to indicate that the decrease in violence has not decreased the appeal of the sport. In fact, this change may have been responsible for changing the appeal from violent spectacle to legitimate sport.

Contrary to how the sport is typically marketed internationally, respondents reported relatively low levels of national pride as a motive to watch MMA. While Funk et al. (2002) originally used this motive in a study of national team sports, it was of interest in this study considering the role of international fighters in the growth of the sport. Although the event in the study was a local event featuring only American fighters, many of the spectators were initially exposed to the sport by watching larger organizations such as UFC and Pride FC that feature fighters from around the world. Although it is unlikely that national pride would be a spectator’s primary motive for attending a local event, it is plausible that it could be a strong motive to watch MMA in general due to the way the sport has been marketed. National pride was emphasized in event marketing during the growth of MMA in Asia as promoters such as Pride FC have often focused on fighters’ nationalities to promote fights. UFC, on the other hand, has seldom used national pride as a promotional tool, opting instead to focus other characteristics of individual fighters. This finding suggests national pride may not have played much of a role in creating a fan base in the United States. Further, results indicate a focus on nationalities would not be an appropriate marketing strategy for a local event. However, more research is needed to determine whether national pride is truly as important as marketers believe for international events.

Similarly, the economic motive was also of interest in this study due to the large growth in wagering on UFC events. In July of 2007, Bodog.com reported wagering on MMA events would surpass wagering on boxing. Despite the fact wagering was illegal in the state in which the event was held and betting lines were not posted on the fights, it was of interest to see if spectators had been attracted to the sport based on their interest in gambling on fights. Results indicated that wagering was not a strong motive for spectators of local events, but this examination should not be extended to larger events taking place in states where betting is legal and where lines are posted.

**Differences between team and individual sports**

As noted earlier, the lack of research on sport consumption motives in individual sports is an obvious omission in the spectator motive literature; therefore, this study sought to understand consumption motives of fans of individual sports. The high rating of sport interest suggests one difference. In a team sports setting such as college football, a spectator may have little interest in the sport of football, but instead attend to support the team or to identify with the university. With individual events such as golf, tennis, or boxing there is no team to support; therefore, these spectators may be more motivated by their interest in the sport itself. This suggests event marketers may want to put more of a focus on the opportunity to see or experience the sport when marketing individual sports.

“While combat sports are, at their core, violent, the results of this study illustrate that consumers may appreciate other aspects like aesthetics and drama more.”

The high rating for drama also suggests differences between event types. Prior research into the drama motive has mostly dealt with team sports, where only one outcome is contested. With only one outcome, spectators’ chances of seeing a dramatic outcome are limited. MMA events, on the other hand, involve multiple fights over the course of a fight card, generating more outcomes and greater potential for dramatic endings. This is comparable to a swim meet or track meet, where over the course of the event, spectators are almost guaranteed to see one or more close finishes.

Similarly, this difference between event types may explain the relatively low ranking of vicarious achievement in this study. Much of the spectators’ experience at team sports events may be built around basking in their team’s performance and the eventual outcome of the event. Most MMA events, on the other hand feature four or more fights. Even though a spectator may identify with a particular fighter, that fighter’s win or loss may be only a fraction of the total experience watching or attending the event. Instead of focusing on one team, spectators at individual events may focus more on the sport or event as a whole, lessening the likelihood of achievement seeking behaviors.

**Demographic differences**

In terms of demographic segments, the majority of the crowd was male, and MMA marketers have traditionally focused their efforts on reaching young males. For example, UFC broadcasts many of their events on SPIKE TV, which caters to a predominantly male audience, and they employ scantily clad models as ring girls to appeal to male fans. However, nearly a quarter of the participants in this study were female, indicating the sport of MMA may also be expanding to the female
audience. Although many women may have been initially attracted to the event to spend time with their male friends, they cannot be discounted as future spectators; therefore, MMA marketers may want to consider incorporating the results of the present study in order to expand interest among this segment. Given drama and aesthetics were reported as the most important motivations by female respondents, MMA promoters should promote high quality, evenly matched fights in order to increase their female fan base.

**Media consumption**

Because MMA is an emerging sport, the various motives that predict media consumption are of utmost importance to sport marketers in order to rapidly grow the sport. While attendance at live events may present geographic and financial limitations to some MMA fans, consumption of the sport through media outlets reduces some of these constraints while still enhancing the revenue of MMA promoters through pay-per-view events. Further, MMA events are contested much less often than many other sports, generating a need to encourage spectators to engage in media consumption between live events. The analysis of spectators’ motives gives some insight into why current MMA fans are watching events while not attending. Sport interest was the most important predictor of media consumption for males, indicating spectators who considered themselves fans of the sport were more likely to consume MMA events through various media. Women were also motivated by sport interest, but that motive was second to drama, indicating women are more likely to watch because they enjoy the drama associated with close fights, than because they are fans of the sport. Another difference between men and women concerned the relationship between vicarious achievement and media consumption. Vicarious achievement was the second most important motive for media consumption for males but did not predict media consumption for females. Because MMA fighters are exclusively males at this point in time, men may find it easier to feel a sense of accomplishment when their favorite fighter wins.

**Future Research**

Whereas this study provides a profile of people attending a local amateur event, future research should expand to examine the sport at different levels because motivation factors may influence consumers differently at these various levels (Mahony et al., 2002). For example, studies could examine the differences between events that draw local, national, or international audiences. It is expected that national pride and economic motivations would play more important roles to attract MMA fans to watch or attend major MMA events. In addition, this study examined spectators in an event held in the United States, while the MMA phenomenon is being experienced in several parts of the world. Specifically, comparisons between North American and Asian fans would be of use considering North American customers appreciate different aspects of the sport as compared to Asian customers (Genauer, 2006). Further, differences may exist due to variations in importance of martial arts among different cultures and in the way the sport has been marketed in different areas of the world.

This study’s findings also suggest motivations may be different for spectators attending team sports than for spectators attending individual sports. Further research should examine these differences in order to better market to different event types. Also, more research could investigate hybrid event types where individual sports are contested using a team concept, such as the Ryder Cup in golf and the Davis Cup in tennis. This idea is especially relevant in MMA as a relatively new company, the International Fight League, utilizes the team concept to differentiate itself from its more established rival promoters.

Future research should be conducted to understand various segments of MMA fans. For example, contrary to the beliefs regarding combat sports, the reason why violence was not the main factor to attract fans to attend or watch MMA events at the current study could be due to the percentage of spectators at the event who could be classified as highly identified MMA fans. It is possible that fans with low levels of fan identity could have higher motives for violence. By understanding differences and demands of each sector of MMA fans, MMA marketers could differentiate strategies to meet various customers’ satisfaction.

Finally, MMA and other novel sports serve as ideal settings to explore factors that contribute to one’s initial attraction to a sport. While Funk and James’ (2001, 2006) Psychological Continuum Model serves as an excellent theoretical explanation of how one might progress from a casual fan to a loyal fan, research involving factors that initially attract one to a sport is sparse and far from conclusive. Further, longitudinal studies that explore how factors that initially attract one to a sport change over time are lacking. Novel sports, such as MMA, provide an ideal context for such studies because they attract larger numbers of first-time attendees, which can be subsequently compared to those who have attended regularly in the past.

**References**
