Sport Commitment Differences Among Tennis Players on the Basis of Participation Outlet and Skill Level

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The purpose of this study was to investigate potential differences in the levels of reported sport commitment model variables on the basis of participation outlet and skill level, thereby allowing a direct comparison of commitment factors between these important marketing segments. A total of 515 recreational tennis players and 245 NCAA collegiate tennis players participated in the study. Results indicated collegiate athletes reported significantly higher levels of sport commitment, involvement opportunities, and social constraints, while reporting lower sport enjoyment levels compared to recreational players. When investigating skill level, advanced players reported significantly higher levels of sport commitment than intermediate and beginner players, and beginner players reported significantly lower levels of sport commitment than intermediate players. In addition, advanced players reported significantly lower sport enjoyment and significantly higher involvement opportunities and social constraints than lesser skilled players. The results provide further theoretical validation to the use of sport commitment model variables in comparing sport populations. Marketing implications are forwarded.
While the majority of sport consumer behavior research focuses on theoretical (Funk & James, 2001; 2006) and empirical (Funk, Mahony, Nakazawa, & Hirakawa, 2000; Funk, Ridinger, & Moorman, 2004; Trail, Fink, & Anderson, 2003; Wann, Ensor, & Bilyeu, 2001) explanations of sport spectator behavior, sport marketers must also consider the consumption behaviors of sport participants, who provide a substantial economic impact to the sport industry each year. Indeed, sport participants are largely responsible for the almost $90 billion per year spent on sporting goods in 2005 in the United States alone (National Sporting Goods Association, 2005). Sport participants also have direct and indirect impacts on several facets of the sport industry (Pitts, Fielding, & Miller, 1994) such as amateur and professional sport, sport education, fitness and sport firms, medical care, sport facilities, sponsorship, and endorsement. In order to maintain its market share, those associated with the sport industry consider retention of current participants to be of great concern since future participation or involvement may influence direct (e.g., participation frequency) and indirect (e.g., future equipment purchases, club memberships and services, spectatorship at professional events) consumption (Blackwell, Engel, & Minardi, 2001; Deaton, 1992; McGehee, Yoon, & Cardenas, 2003; Reid & Crompton; 1993; Shank, 2004).

Tennis is one of the most popular international participation sports with an estimated 83 million global participants (Sport Marketing Surveys, 2005). But, participation statistics indicate the tennis industry is experiencing a retention problem. For example, in 2004 there were fewer players than there were in 1999 in the United States (Tennis Industry Association: TIA, 2004). Even more disturbing is the declining number of frequent players (those who play 21 or more times a year). In the United States there were 6.1 million frequent players in 1999, and by 2004, the number dropped to 4.8 million (TIA). According to the Tennis Industry Association, the lack of growth in the U.S. tennis industry is due to increased competition from other leisure time activities, and from a business standpoint, each year the marketplace is competing for the same market share. Generating new players in the sport of tennis is quite challenging since over 70 million Americans have tried tennis and over 97% have no interest in playing again (TIA, 2003).

Past research has explored sport participant behavior by measuring constructs such as involvement (McGehee, Yoon, & Cardenas, 2003), loyalty (Kang, 2002), intention (Hagger, Chatzisarantis, & Biddle, 2002; Lucidi, Lauriola, Leone, & Grano, 2004) and motivations (Milne & McDonald, 1999). Sport spectator research has focused on psychological commitment to segment consumers based on loyalty (Kwon & Trail, 2003; Mahony, Madrigal, & Howard, 2000). The current study examined participant behavior in relation to psychological commitment reported by the participant because the construct is theoretically linked to persistence.
A major advancement in the integration of commitment into the sport participation context was achieved with the introduction of the sport commitment model (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993). The sport commitment model (SCM) measures factors relating to sport commitment and is one of the few psychological models developed for and empirically validated in a sport participant setting. Although the model was originally published in the sport psychology literature, it is also relevant to sport marketers who are employed in settings where sport participation dictates the financial viability of the firm (e.g., health/fitness clubs, private sport clubs, sport governing bodies, etc.). Such settings are heavily dependent upon the development and maintenance of highly committed sport participants. The present study is the first attempt to explore the SCM from a sport marketing perspective.

The Sport Commitment Model

The SCM was adapted from social-exchange theory (Kelley & Thibaut; 1978; Thibaut & Kelley, 1959), Kelley’s (1983) model of interpersonal relationships, and the investment model (Rusbult, 1980, 1988). The SCM was based on compelling evidence that enjoyment, or fun, was found to be a primary participation motive in diverse athletic samples ranging in age, ethnicity, gender, and sport type (Scanlan & Lewthwaite, 1986; Scanlan, Ravizza, & Stein, 1989; Scanlan, Stein, & Ravizza, 1989; Stein & Scanlan, 1992). Scanlan and her colleagues (Carpenter, Scanlan, Simons, & Lobel, 1993; Scanlan et al., 1993; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993) chose to use the construct of commitment because, in contrast to other approaches to persistence (e.g., intentions; Fishbein & Ajzen, 1975), due to commitment literature provided a more comprehensive and sport-relevant view of this behavior and its underlying psychological state. Commitment has also been found to increase behavioral involvement and loyalty (Iwasaki & Havitz, 2004).

Sport commitment is defined as a psychological state representing the desire and resolve to continue sport participation in a particular program, specific sport, or sport in general (Scanlan et al., 1993). Sport commitment is posited as having five direct influences that can increase or decrease sport commitment: sport enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities. Sport enjoyment is defined as a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking, and fun. Involvement alternatives are defined as the attractiveness of the most preferred alternative(s) to continued participation in the current endeavor. Personal investments reflect personal resources such as time, effort, and energy that would be lost if participation did not continue. Social constraints are the social expectations or norms that create feelings of obligation to remain in the activity. Involvement opportunities are the anticipated benefits one receives through continued participation such as friendships, social
interaction, skill mastery, and physical conditioning. Overall, sport enjoyment, personal investments, social constraints, and involvement opportunities are hypothesized to have a positive relationship to sport commitment, while the presence and strength of involvement alternatives possess a negative relationship to sport commitment.

According to Scanlan and Simons (1992), the SCM has three important features. First, sport commitment addresses psychological attachment to an activity and does not involve estimations of the actual probability (e.g., intentions). Second, sport commitment is a product of both cognitive and affective factors. Third, the SCM is able to distinguish differing psychological states of participants who may report equal levels of commitment. The SCM does not focus specifically on commitment but the meaning behind commitment that individuals hold for the activities in which they participate (Scanlan & Simons, 1992).

Researchers have utilized the concepts associated with the SCM to examine varied topics such as competitive youth sport (Carpenter et al., 1993; Scanlan et al., 1993; Weiss, Kimmel, & Smith, 2001), sport expertise (Helsen, Starkes, & Hodges, 1998), exercise and fitness commitment (Alexandris, Tsorbatzoudis, & Grouios, 2002), occupational intention to quit among referees (VanYperen, 1998), coaching commitment and turnover (Raedeke, Warren, & Granzyk, 2002), athlete burnout (Raedeke, 1997), and elite athlete commitment (Scanlan, Russell, Beals, & Scanlan, 2003). An underutilized utility of the SCM is its potential to compare two related groups concerning the derivatives of their sport commitment. While prior research has assessed levels of sport commitment and its determinants on populations such as amateur youth athletes (Scanlan et al., 1993) and elite professional athletes (Scanlan, Russell, Beals, & Scanlan, 2003), no study has examined the potential sport commitment differences between adult participants, specifically recreational and collegiate athletes. Such a study might give insight into the factors influencing participant retention from the perspectives of participation outlet and participant skill level. Further, the information from such a study may provide sport marketers with valuable segment-specific information that will be useful when developing targeted marketing initiatives based on participation outlet (competitive versus recreational) and skill level (beginning versus intermediate versus advanced). Therefore, the purpose of this study was to investigate potential differences in the levels of reported sport commitment and its associated antecedents on the basis of participation type (recreational and collegiate tennis players) and skill level (beginning, intermediate, and advanced). Results from the current study will expand research based on the sport commitment model while also providing practical implications to marketers in the tennis industry.
Method

Sample

Recruitment of the participants followed the guidelines and the approval of the Human Subjects Review board at the researchers’ university.

Collegiate Players. Given that individual e-mail addresses of NCAA tennis players were not available due to privacy issues, a total of 1107 collegiate tennis coaches at the NCAA Division I, II, and III playing levels were informed of the study via a pre-notification e-mail (see Kent & Turner, 2002) during the last two weeks of their regular season competition. This time period was chosen to avoid excessive time conflicts with the post-season championships and final exams. E-mail addresses for each coach were obtained from the College Tennis Connect website (http://www.collegetennisconnect.com). However, a total of 96 e-mail messages sent to coaches were returned to sender due to complications such as incorrect e-mail addresses, terminated e-mail accounts, exceeded storage quota limits, and temporary absence of head coach due to administrative or maternity leave. A total of 14 of the returned messages were successfully corrected to reflect the present e-mail address of the coaches, so only 82 messages were undeliverable, leaving a total coaching tally of 1025.

Following the recommendations of Dillman (2000), an e-mail message was sent to each coach one week after the remittance of the pre-notification message asking him or her to encourage and facilitate athlete participation. The letter included a summary of the risks and benefits of participation along with directions to complete the survey at a secure website. Since individual e-mail addresses of the athletes were not available to the researchers, the coaches were asked to forward the electronic message to each of their respective athletes and carbon copy (“CC”) the message to the primary investigator’s e-mail address. Receipt of the carbon copied message allowed the primary investigator to determine the number of athletes who received invitations to participate in the survey. Follow-up reminders were sent to the coaches each week for a total of four weeks. The surveys were conducted in an online format in an attempt to maximize player convenience, secure response confidentiality, and minimize necessary paper. The survey was administered through a third-party company entitled FormSite (http://www.formsite.com).

A total of 245 athletes responded to e-mail invitations from their respective coaches to participate in the study, which resulted in an overall response rate of 47.7%. Respondents included undergraduate freshmen, sophomores, juniors, and seniors with various skill levels and backgrounds. The sample featured a total of 78 (31.8%) males and 167 (68.2%) females. Age of the subjects ranged from 18 to 24 years ($M = 20.0$, $SD = 1.4$), and the majority of the respondents competed in NCAA Divisions I (42.0%) and III (48.6%), with only 9.4% of the
athletes emanating from Division II programs. A total of 76 different colleges were represented in the sample by at least one student athlete.

Recreational Players. Four community tennis association presidents sent an e-mail invitation to their membership. Community tennis associations are common in the U.S. and provide a variety of benefits to members such as league play, tournaments, socials, and challenge ladders for a minimal annual fee (~$20 U.S.). Tennis associations communicate with their membership either through traditional mail, a website, or e-mail. Association presidents sent an e-mail invitation with an explanation of the purpose of the study, the web-link to access the survey, the password, mention of an incentive (drawing for a free tennis racket), and a deadline to complete the survey. A reminder e-mail with the same information was sent one week before the deadline. The survey was administered through a third-party company entitled SurveyMonkey (http://www.surveymonkey.com). A total of 1,662 e-mail invitations were sent out and a total of 442 invitations were undeliverable due to invalid e-mail addresses. Over a one-month data collection time frame, a total of 531 questionnaires (44%) were completed. In a second sampling method, the link for the questionnaire and a description of the study were included in a monthly community tennis association newsletter. A total of 468 potential participants received the newsletter and a total of 16 questionnaires were completed (4%).

The total sample consisted of 550 recreational players who lived in the Intermountain region of the United States. The participants’ age ranged from 19 to 84 years \( M = 47.5, SD = 11.6 \), and more females (53%) responded than males (47%). Participants reported high gross household incomes with 30% of the total sample citing earnings over $120,000 per year. All National Tennis Rating Program (NTRP) skill levels that compete in adult leagues were represented in the sample (2.5: 4%; 3.0: 23%; 3.5: 36%; 4.0: 19%, 4.5: 12%; 5.0, 3%; 5.5: 3%) with the 3.5 (intermediate) level having the most participants.

Instrument

For this study, 14 items were incorporated to measure sport commitment (4 items), sport enjoyment (4 items), social constraints (3 items), and involvement opportunities (3 items) and were worded according to player type. Items related to sport commitment included: “How dedicated are you to playing (collegiate) tennis?”; “How determined are you to keep playing (collegiate) tennis?”; “How hard would it be for you to quit (collegiate) tennis?”; “What would you be willing to do to keep playing (collegiate) tennis?” Enjoyment items included “Do you enjoy playing (collegiate) tennis (this season)?”; “Do you have fun playing (collegiate) tennis (this season)?”; “Do you like playing (collegiate) tennis (this season)?”; “Are you happy playing (collegiate) tennis (this season)?” To assess social constraints, items included “I feel I have to play (collegiate) tennis to please (my mom/my friends)”; “I feel I have to play
collegiate tennis to please (my dad/significant others)”; “I feel I have (to stay in this program/ keep playing tennis) so that people won’t think I’m a quitter.” Items related to involvement opportunities included “Would you miss (your head coach/unique experiences) if you left (collegiate) tennis?”; “Would you miss the good times you have had playing tennis (this season) if you left (collegiate) tennis?”; “Would you miss your friends in collegiate tennis if you left the program?” The 5-point Likert-type scale differed depending on the question (e.g., “not at all dedicated” to “very dedicated”; “not at all” to “very much”; “not at all” to “very much”; “not hard” to “very hard” for the previous listed questions respectively). The items associated with these measures have demonstrated high reliability (α > .80) in past research (Scanlan et al., 1993). Involvement alternatives (viable participation alternatives) and personal investments (time and money investment) were not assessed in the present study due to previously reported measurement issues (Scanlan et al., 1993) and non-applicability of the constructs in a collegiate setting (e.g., some collegiate programs purchase equipment for their respective athletes which minimizes the athletes’ personal investment).

After assessing internal reliabilities of the instrument via Cronbach’s alpha, two major analyses were carried out in the study. Given the discrepancy between mean age for the collegiate and recreational participants and the fact that age was moderately yet significantly correlated with sport commitment and its determinants in the present sample (Mertler & Vannatta, 2005), collegiate and recreational players were compared via an Analysis of Covariance (ANCOVA) to determine similarities or differences between the two populations based on their perceived commitment, enjoyment, involvement opportunities, and social constraints while controlling for the effects of age. Similarly, a second ANCOVA was calculated to compare respondents on sport commitment and its determinants while controlling for age by self-reported beginner (≤3.0; n = 139), intermediate (3.5–4.5; n = 358), and advanced (≤ 5.0; n = 263) ability ratings as described by the United States Tennis Association’s National Tennis Rating Program (United States Tennis Association, 2006). As an added caution for multiple comparisons a Bonferroni correction was applied to control for groupwise error, thus, the final alpha value for significance was set at .025 (overall alpha value of .05 / two comparisons).

**Results**

Although previous studies have indicated a high degree of reliability for the 14 items used in this study, the researchers exercised an additional degree of caution by calculating Cronbach’s alpha for the four constructs in both samples. The coefficient of reliability levels of all subscales for the collegiate (commitment = .85, enjoyment = .97, involvement opportunities = .71, social constraints = .70) and recreational (commitment = .85, enjoyment = .83, involve-
ment opportunities = .74, social constraints = .72) samples met or exceeded the value of .70 suggested as adequate by Nunnally and Bernstein (1994).

**Participation Type**

Means and standard deviations of sport commitment and its determinants on the basis of participation type are presented in Table 1. Univariate analysis of covariance (ANCOVA) was conducted to determine whether differences on sport commitment, enjoyment, involvement opportunities, and social constraints existed as a function of participation type while controlling for the effect of age. The overall effect of the covariate was significant \[ F(4,754) = 5.48; p < .001; \text{partial } \eta^2 = .028 \], and the multivariate test for participation type was significant \[ F(4,754) = 32.31; p < .001; \text{partial } \eta^2 = .146 \], thus prompting an analysis of each dependent variable. The results revealed collegiate athletes reported significantly higher overall levels of sport commitment \[ F(1,759) = 17.97; p < .001; \text{partial } \eta^2 = .023 \], involvement opportunities \[ F(1,759) = 19.92; p < .001; \text{partial } \eta^2 = .026 \] and social constraints \[ F(1,759) = 38.53; p < .001; \text{partial } \eta^2 = .048 \], and lower sport enjoyment \[ F(1,759) = 13.52; p < .001; \text{partial } \eta^2 = .018 \] when compared to their recreational counterparts.

**Table 1.** Means (standard deviation) of dependent variables on the basis of participation type and skill level.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Sport Commitment</th>
<th>Sport Enjoyment</th>
<th>Involvement Opportunities</th>
<th>Social Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participation Type</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Collegiate</td>
<td>4.23 (0.78)(^a)</td>
<td>4.33 (0.81)(^a)</td>
<td>4.20 (0.80)(^a)</td>
<td>1.55 (0.72)(^a)</td>
</tr>
<tr>
<td>Recreational</td>
<td>4.03 (0.74)(^b)</td>
<td>4.66 (0.42)(^b)</td>
<td>4.08 (0.86)(^b)</td>
<td>1.16 (0.40)(^b)</td>
</tr>
<tr>
<td><strong>Skill Level</strong></td>
<td></td>
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<tr>
<td>Beginner</td>
<td>3.83 (0.81)(^a)</td>
<td>4.67 (0.39)(^a)</td>
<td>3.98 (0.91)(^a)</td>
<td>1.13 (0.30)(^a)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>4.10 (0.69)(^b)</td>
<td>4.67 (0.41)(^a)</td>
<td>4.11 (0.82)(^a)</td>
<td>1.16 (0.41)(^a)</td>
</tr>
<tr>
<td>Advanced</td>
<td>4.22 (0.79)(^c)</td>
<td>4.34 (0.80)(^b)</td>
<td>4.19 (0.81)(^b)</td>
<td>1.53 (0.72)(^b)</td>
</tr>
</tbody>
</table>

\(^a\)Note. Means with different superscripts are statistically different across each participation type/level (p < .025).
Sport Commitment Differences Among Tennis Players

Skill Level

Means and standard deviations of sport commitment and its determinants on the basis of skill level are presented in Table 1. Another ANCOVA was calculated to determine whether differences on sport commitment, involvement opportunities, and social constraints existed as a function of ability level while controlling for the effect of age. The overall effect of the covariate was significant \( F(4,754) = 4.09; p = .003; \text{partial } \eta^2 = .021 \), and the multivariate test for participation type was significant \( F(4,754) = 17.75; p < .001; \text{partial } \eta^2 = .086 \), thus prompting an analysis of each dependent variable. The analysis revealed significant differences in overall levels of sport commitment \( F(1,759) = 15.25; p < .001; \text{partial } \eta^2 = .039 \), enjoyment \( F(1,759) = 8.33; p < .001; \text{partial } \eta^2 = .022 \), involvement opportunities \( F(1,759) = 8.99; p < .001; \text{partial } \eta^2 = .023 \), and social constraints \( F(1,759) = 16.40; p < .001; \text{partial } \eta^2 = .042 \) among the three groups.

To determine specific group differences among the three levels of the independent variable on the four dependent variables, the estimated marginal means were calculated and the 95% confidence intervals were examined. Levels of the independent variable were considered significantly different from each other if their respective 95% confidence intervals did not overlap. For sport commitment, beginner players (CI: 3.633-3.899) scored significantly lower than their intermediate (CI: 3.951-4.131) and advanced (CI: 4.210-4.464) counterparts, and intermediate players reported significantly lower sport commitment values than advanced players. In regards to enjoyment, advanced players (CI: 4.271-4.468) scored significantly lower than beginner (CI: 4.551-4.757) and intermediate (CI: 4.584-4.723) players. For involvement opportunities, advanced players (CI: 4.234-4.517) reported significantly higher values than beginner (CI: 3.735-4.032) or intermediate (CI: 3.915-4.117) players. Finally, in respect to social constraints, advanced players (1.433-1.612) scored significantly higher than beginner (1.044-1.232) and intermediate (1.104-1.232) players.

Discussion

The United States Tennis Association and the Tennis Industry Association both have highlighted the importance of player retention in tennis (Tennis Industry Association, 2003). A player's commitment to his or her sport has been used as a measure of retention. The purpose of this study was to further understand commitment in collegiate and recreational tennis players based on the SCM. This study further validates and extends research with variables of the SCM by comparing two adult sport populations. From a theoretical standpoint, the constructs of the SCM have not been compared with sport and differing adult populations. While the limited research related to differences in the sport commitment model in early stages of
model development (e.g., Carpenter & Coleman, 1998; Carpenter, Scanlan et al., 1993) found gender, skill level, and culture invariant in the model, the results indicate significant differences between adult tennis player populations and extend the differences based on their skill level, thus providing segment-specific information on a target market.

**Participation Type**

The findings indicated collegiate athletes reported significantly higher levels of tennis commitment, involvement opportunities, and social constraints than recreational athletes. The increased levels of sport commitment (e.g., a desire to continue) reported by collegiate athletes may in part be due to an artifact of the scholarship/financial aid they may receive (for those receiving such aid). Such a significant monetary commitment by the college or university in return for their participation may create a sense of obligation to continue playing. Also, this factor is likely magnified among college athletes with low family incomes, many of whom may not be able to attend the institution without the financial backing of a partial or full tuition grant-in-aid. College athletes receiving financial aid based on their participation in the sport may view tennis less as a leisure sport and more like an employment relationship. Besides the financial aspects influencing their commitment to tennis, collegiate players may view tennis as a primary component of their social identity (Tajfel & Turner, 1985). Based on Social Identity Theory, collegiate players may seek to achieve positive self-esteem by forming an in-group identity and differentiating their group from others (e.g., non-team members). The athletes' tennis ability affords them to be a part of a select group (a varsity tennis team) and there their role on the team (e.g., a student-athlete) may result in additional group memberships with other athletes off the court. Recreational tennis players, on the other hand, likely view the role of their tennis participation as ancillary due to other roles or commitments in their lives such as family, employment, and other recreational activities and hobbies that capture their interest.

The college players also reported higher involvement opportunities. This finding makes implicit sense since this variable relates to opportunities that are lost with discontinued participation. The college player's have more than likely, at their current stage in life, put considerably more time into their participation in order to acquire their elite skill level. In addition to time required to reach their skill level, team practices and competitions requires an investment of maximum of 20 hours per week during the season. There is also a money investment. For example, some Division I and II players receive scholarship money and discontinuation of tennis would mean the possible loss of opportunities for funding their education. In addition, tennis has specialized and unique facilities (indoor or outdoor courts). Also, the equipment (both soft and hard goods) and rules are specialized for the game. The benefits of tennis are physical (e.g., improved physical wellness and skill mastery), psychological (e.g., creates a
positive attitude), and sociological (e.g., improved and enhanced relationships). These unique attributes of tennis create a variety of potential involvement opportunities that are viewed as more important for the collegiate players. Therefore, the value of participation and the intrinsic benefits hold a greater meaning to the college players. Previous SCM research has shown high correlations between involvement opportunities and commitment (e.g., Scanlan et al., 1993), and the current college players in the current study reflect these findings. Similar to the commitment findings, the college players have formed an identity as a “tennis player”.

The reporting of higher social constraints (e.g., social expectations/norms that create feelings of obligation) by the collegiate sample may be explained by the competitive structure of collegiate tennis. College players may compete as an individual (singles) or with a partner (doubles), but the overall success of the team in terms of wins and losses is based on a team score. While there are similar United States Tennis Association sponsored leagues offered to adult participants, the collegiate players also train, practice, compete, and may even live together. This intermingling creates camaraderie between the players. Often times, their best friends may also be their teammate, creating a social “pull” to continue their involvement in the game. At a recreational level, team leagues are organized by parks, recreation facilities, or tennis club administrators that match and pair teams based on skill level of the players, so the social connection between players may not develop the same extent of social “pull” as it does with collegiate players.

The recreational adult participants reported higher levels of enjoyment compared to the collegiate sample. The reporting of decreased levels of sport enjoyment among collegiate players may be due to the institutionalization of collegiate sports whereby college athletes perceive participation in sport as their “job” rather than an extramural leisure activity. Furthermore, many of the collegiate players received scholarships in return for their participation, and their financial livelihood at the university or college may be based on their tennis participation. While there has been little research investigating collegiate athlete’s scholarship status and enjoyment levels, there has been considerable research exploring how scholarship status affects intrinsic motivation (participating for fun, pleasure, and skill mastery). Results examining this phenomenon have been mixed. For example, Amorose and Horn (2000) found scholarship athletes reported higher levels of intrinsic motivation compared to non-scholarship athletes while Ryan (1977) found the opposite to be true. Also, Ryan (1980) found that athletes who received partial scholarships or played in non-revenue sports reported higher levels of intrinsic motivation than athletes on a full scholarship. The results from this study partially support Ryan’s studies, assuming intrinsic motivation and enjoyment are related constructs. For recreational players, tennis may be viewed as an escape from their busy lives, a way to relax, and/or to just have fun. Their participation is a free choice, and if they are not enjoying the game, they may have more opportunities to compete in a different sport or activity.
Skill Level

Prior research has demonstrated that sport commitment and enjoyment are typically highly correlated (Carpenter, 1992; Carpenter & Coleman, 1998; Carpenter, Scanlan, Simons, & Lobel, 1993; Scanlan et al., 1993), but there have been no comparisons between athletes participating in the same sport with differing skill levels. In the current study, the higher skilled players reported higher levels of sport commitment with lower associated levels of sport enjoyment.

Advanced players may report higher levels of commitment compared to their lesser skilled counterparts due to their required personal investment. While personal investments was not included as a variable in this study, prior research with recreational tennis players has found personal investments and commitment are highly correlated (Casper, 2004). To reach an advanced skill level, a player is more likely to join a tennis facility, compete often, purchase equipment, and commit time to their development. These investments are exclusive to the sport. For example, the time and money invested into their skill development would be wasted if they chose to discontinue participation. Lower skill levels may not have put as much personal investment in the sport, and, therefore, they have less accumulated investment to lose if participation is discontinued.

Advanced players may have reported lower enjoyment because the game has become more serious to them (e.g., focus more on competition versus skill mastery). Also, with increased competition a player can become more easily frustrated when not playing up to their expected standard of play due to the related higher personal expectations of performance. Since collegiate players were categorized as advanced players, the present finding based on skill level is congruent with the prior findings in this study since the collegiate players reported lower enjoyment in comparison to the recreational sample.

In addition, advanced players cited higher levels of involvement opportunities and social constraints than their beginning and intermediate counterparts. Some of these finding reflect back on the previous analysis comparing participation type indicating that college players were found to differ from the recreational players on these constructs. Advanced players, including recreational, have more invested so unique opportunities and characteristics of the game become stronger as skill level increases. It is also possible that advanced players report more social expectations or norms that create feelings of obligation to remain in the activity due to their perceived possession of a “sport identity” (Leonard & Schmitt, 1987). The lowest concentration of tennis players is at the advanced skill level, so perhaps advanced players develop stronger social relationships with like players since they are more likely to practice and compete against each other more often. Also, since many of the advanced players in this study played at the collegiate level, the social “pull” from an organized team in the collegiate environment serves as an artifact.
Implications of Findings

The findings from this study have both theoretical and practical implications. First, this study adds to the validity of the use of the SCM constructs when examining differing populations who play the same sport. The current study also advances the literature in relation to SCM research with adult sport participants.

As far as practical implications, sport marketers are continually searching for innovative ways to meet sport participants needs. Sport participants impact both the sport performance and production segments of the sport industry (Pitts, Fielding, & Miller, 1994). The two populations in this study represent frequent tennis players that have (and likely will continue to have) a tremendous financial impact on goods and services in the tennis industry through direct and indirect consumption. Recognizing the challenges of recruiting new players, marketers must be cognizant of the commitment determinants of frequent participants to enhance retention and further help with recruitment efforts. The current study goes beyond well understood demographics (TIA, 2004) and provides an analysis of the participants from a previously unexplored psychographic perspective.

One interesting finding of the present study is the inverse relationship between sport commitment and enjoyment based on the participation type and skill level. The current data show that as players advance in skill mastery, they become more committed to the game, but enjoy the game less than players competing at lower skill levels. Tennis providers can interpret the results as both good and bad news. The finding of increased commitment means that advanced players will be less likely to quit (e.g., VanYperen, 1998), but if they are not enjoying the game as much as they used to, tennis service providers may need to implement innovative programming options to advanced players to encourage them to seek further skill development and make the game more exciting. Some examples may include lessons for advanced players that focus on improving strategy and opportunities to meet and play with other advanced players. This strategy is commonly used in junior tennis where, in addition to standard leagues, service providers offer “interclub matches” where clubs invite players from another club to play against their members in an environment where the emphasis is on skill improvement and less on competition. Secondly, since advanced players take fewer lessons to improve their physical skills, service providers may offer training sessions to develop mental skills that are valuable for further improvement.

It appears that the commitment level of a player may be an important construct to help tennis providers increase participation or to serve as a basis to convince beginning players to play more frequently. As noted earlier, one strategy may be to try to persuade a beginning tennis player both socially and financially to invest in the game. For example, tennis providers may encourage social events for beginning players to help form social bonds and facilitate...
future participation (e.g., Tennis Welcome Centers). Another strategy may be to design equipment to promote skill development for lesser skilled tennis players (e.g., Wilson’s “Game Improvement” line of tennis racquets), or provide support to organizations dedicated to improving participant skill level (e.g., United States Professional Tennis Association and Professional Tennis Registry). Also, tennis providers may consider offering “package” deals that encourage a beginner to purchase tennis-related merchandise and services (e.g., tennis lessons, ball machine rentals, etc.) together.

Limitations

Several limitations of this study should be noted. The recreational players were members of tennis associations in the same region resulting in a relatively homogenous sample which may reduce the ability to generalize the results. Community tennis association members may be members of public and private tennis centers, but are not a true representative of recreational players as a whole. The collegiate sample consisted of players that all were at a high skill level and represented a majority of the higher skill level grouping used in analysis. Replicating the current study with a sample of more diverse recreational players over a wider variety of skill levels would help reduce potential sampling error. Secondly, to further help with marketing efforts evidence of a link between the sport commitment constructs, skill level, and actual goods and services consumption would provide insight into marketing strategies that will positively impact the industry financially.

Future Research Opportunities

While the combination of current data and previous sport commitment research sheds light on the psychological differences between participants of different backgrounds, future research is still warranted. For example, it would be interesting to compare the effects of scholarship amount (e.g., full vs. partial vs. none) on sport commitment since most of the research has focused specifically on intrinsic motivation (Amorose & Horn, 2000; Ryan, 1977; 1980; Zahariadis, Tsorbatzoudis, & Alexandris, 2006). Secondly, a study that incorporates longitudinal data to examine the effects of a marketing campaign that implements the strategies recommended in the current study would bolster practical implications to an expanding line of research on sport participation. Lastly, while the connection between commitment and future playing and purchasing behavior seems intuitive, empirical support for this link is still needed to confirm the relationship.
References


