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Profiling the Sport Consumption Attitudes and Behaviours of Fantasy Football Players

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Keywords

Sport, leisure, fandom, online marketing, entertainment, consumer.

Abstract

Most sporting codes encourage participation in Fantasy Sport (FS), despite few making direct revenue from it. There is a lack of empirical evidence whether this is good practice, for although FS can increase involvement and education, it may also compete with other forms of sport consumption for consumers limited resources. This study begins to address whether FS competes with or complements sport consumption by comparing FS players with non-players. Data was collected from surveys (n=182) of AFL fans, with findings indicating FS players had higher tested measures of attitudes (e.g., team identification, commitment) and behaviours (e.g., game attendance, television viewing) related to the sport. What remains to be determined is causality, and suggestions on how to examine this are given.

Fantasy Sport: Background

Participation in Fantasy Sport (FS) has become an important means of engaging sport consumers, growing rapidly across countries and sports. The growth of FS has been facilitated by many factors including the advent of more televised sport, the increased accessibility of sport on the internet, and the number of websites offering FS services (Levy, 2003).

FS involves the selection and maintenance of fictional, or fantasy teams, made up of a selection of players from within a particular sport league. Competitions are administered through an online or internet medium and serve to offer an additional level of interaction between sport and fan. Team performance is assessed through scoring the performance of players that comprise each team based on their actual match statistics. FS therefore works best in sports domains where statistics are freely available and easy to understand for the sport fan. Research suggests that while young males represent the dominant playing population (Levy, 2003), FS is gaining interest in more diverse demographic groups (Lee, Kwak, Ryan and Lim, 2007) with new segments of participants including women.

Lomax (2006) notes little scholarly work has been conducted in the area of FS despite its exponential growth over the last decade. Studies around FS have focused on gambling issues (Bernhard & Eade, 2005), communication (Bernhard & Eade, 2005), masculinity issues (Davis & Duncan, 2006), FS relationship with social construction (Levy, 2006), legal aspects (Holleman, 2006) and the use of FS as a context for collegiate educational programs (Einolf, 2001). Motivations for FS play have been the subject of more recent research (Dwyer, Kim & Grey, 2008; Lee, Seo & Green, 2008). While these studies provide a foundation for the concept of FS, there has been little research profiling FS consumers or how the virtual consumption of the sport impacts real consumption of the subject sport. The exception is qualitative research by Dreyer, Morse, Shapiro, Dwyer and White (2007) that looked at changes to behaviour based on participation in North American FS competitions. This research extends these findings by empirically testing some of the implied differences between FS and non FS players.

Like all consumption, sport consumption is multidimensional (Stewart, Smith & Nicholson, 2003) comprising behavioural, affective and cognitive elements (McPherson, 1976; Wann, Melnick, Russell & Pease, 2001). Given space limitations, this paper specifically focuses specifically on two elements of consumption, with the cognitive element a planned component of future studies. The two elements investigated here are defined as follows:

- Behavioural consumption - considers the number of games attended live, watched through various media and includes merchandise or other physical forms of purchase;
- Affective consumption - considers an individual's connective focus or loyalty to teams, players or the sport itself which are subject to change. While there are multiple empirically developed scales and constructs relevant here, this research focuses on motivations to consume sport, points of attachment to the sport and measures around loyalty and commitment to a supported team.

These two elements are particularly relevant when discussing FS participation and its potential impact. Changes to motivations or the way sport is consumed will have an impact on loyalty, repeat purchase and the connective focus of consumers. As such, study of FS is important for both marketers of FS products and marketers of the sports they are based on.

Research Issue

FS now represents a large industry - for example in the U.S., there are an estimated 29 million fantasy sport players, with competitions generating economic activity of nearly US\$4.5bn annually (FSTA, 2008). There are however, significant differences in the nature and operations of FS in Australian and U.S. markets. Most notably, many competitions in Australia are free to enter and have lower prize pools than in the U.S. Additionally, FS in the U.S. has been popular for decades in many different sports, and is therefore more culturally ingrained than in Australia where FS competitions have only gained sizeable followings in recent years.

Despite these differences, FS play within Australia has been shown to be a sizeable market, although it is difficult to estimate by looking at registered players alone as it is common practice for players to register multiple teams using different email addresses. Karg and McDonald (2009) conducted the only nationally representative survey on this topic, and estimated there are approximately 900,000 FS players in Australia. Of these, 74% were male and while the most popular age bracket of FS players was 20-24 year olds, there was considerable penetration in other age brackets, showing that FS covers a range of diverse and attractive Australian market segments. It was shown those who play FS indicated they attended and watched more games on TV than non players and bought more club merchandise.

So, although nearly 1 in 25 Australians participate in FS of some kind, no prior research has considered the impact of this participation. In other markets, investigation into the antecedents and impact of playing FS is developing. For example, qualitative investigation suggests FS consumers have higher allegiance to players and increased levels of media consumption and overall league knowledge (Dreyer et al., 2007). FS has also led to the emergence of consumers who check statistics online without watching games at all (Dreyer et al., 2007). The current study seeks to empirically quantify these findings within a different market.

The key question for sports administrators is the degree to which they should encourage consumers to participate in FS. On one hand, it may be a valuable tool to increase education and involvement levels thereby complementing other consumption of the sport (e.g., game attendance). On the other hand, it may be a competitive activity for consumer's time, where playing FS reduces other forms of sport consumption. If we consider the case of the Australian Football League (AFL), the sport derives little direct income from FS although its governing body does promote one of the two major FS competitions. The question of whether FS complements or competes with AFL consumption (television viewing or attending games) is therefore critical, as those other forms of consumption represent major league revenue streams.

This paper reports on a comparison of a group of FS players to non-FS players, in order to determine if they are different, and if so, what attitudinal and behavioural differences exist between them. This is an obvious, but important first step in determining the impact (if any) of FS on other aspects of sport consumption. Our research question therefore is *what affective and behavioural consumption differences exist between FS and non-FS players?*

Method

This paper focuses on FS participation among fans of the Australian Football League (AFL), the premier national competition of Australian Rules football, a game indigenous to Australia. The League consists of 16 teams with over 500,000 members or season ticket holders across the country, average match attendances of over 35,000 and an estimated five million fans of the sport across the country. The sport itself is well suited to FS competition given its easily understandable statistical nature.

A paper based, self-administered survey instrument was developed and distributed to a convenience sample of AFL supporters drawn from undergraduate and post graduate students. The characteristics of the sample largely matched the known demographic characteristics of FS competitors, being predominantly male and under the age of 30. 182 completed responses were collected with 47% of people completing the survey being FS players (n=86). A comparably sized sample of non-playing (n=96) AFL fans was also collected. The survey instrument was constructed to explore the nature of FS participation and differences in affective and behavioural consumption suggested in past conceptual and qualitative work (Dreyer et al., 2007). Firstly, demographic information and questions around FS play uncovered whether respondents were actively involved in forms of FS. If so, the survey asked the length of time (in years) they had been engaged in playing FS and the amount of time they spend playing (in average minutes played weekly). Second, participant information on team support and live game attendance and media consumption was collected, as well as merchandise purchased and other forms of sport related consumption (e.g., betting on the sport). These questions sought to uncover behavioural consumption related to the sport of AFL.

The final four parts collected information on Motivations for Sport Consumption, Connective Focus, Team Identification and Attitudinal and Behavioural Loyalty measures. All of these measures were adapted from existing scales. Motivation for Sport Consumption (MSSC) is used to assess various motivations to consume sport including achievement, escape, knowledge, social, drama, physical skills, and aesthetics (Robinson, Trail & Kwon, 2004). Team Identification was assessed using the Sport Spectator Identification Scale (SSIS) (Wann & Branscombe 1990, 1993). Connective Focus was measured using the points of attachment index (POA) (Robinson & Trail, 2003), that includes items for each potential connective focus an individual can have to a sport. Five points of attachment were assessed in this study – sport, team, player, coach and the league itself. Attitudinal loyalty to a team was measured by using the 14 item Psychological Commitment to Team (PCT) (Mahony, Madrigal & Howard, 2000) scale. In addition, a combined set of attitudinal and behavioural loyalty measures previously employed by Bauer, Stokburger-Sauer and Exler (2008) were also collected for validation. These constructs comprised the affective elements of consumption tested in the study.

Results

Nature of Fantasy Sport Consumption

Nearly half (47%) of the sample played FS AFL, with participation shown to be predominantly a male activity (92%). Forty percent had more than one active team in the FS AFL competitions while more than a third were also involved in FS competitions in another sport. Half were established players in at least their fourth year in FS leagues, while 20% indicated that 2009 was either their first or second year of FS play. Players spent a considerable amount of time playing FS, with 79% indicating they spend more than half an hour a week and 22% spending more than 2 hours a week. Players indicated this time came at the expense primarily of other media or online activities.

Comparison of FS players and Non Players

Findings presented here are based on descriptive and cross group analysis of FS and non FS players. Prior to analysis, data was checked for normality and scales were checked for validity and reliability using Confirmatory Factor Analysis (CFA). As expected (given the scales used were established measures) scale validity (AVE between .52 and .81) and reliability (Alpha between .76 and .96) of each construct used in the analysis were satisfactory. Given adequate validity and reliability, and in line with previous comparative studies using these scales, mean scores were calculated for the Motivations for Sport Consumption (MSSC) and Points of Attachment (POA) factors based on the items (Robinson, Trail & Kwon, 2004). For remaining measures (Team ID and Loyalty), composite scale scores were developed for each construct to develop measures that could be used for comparison across the two groups (Wann, Schrader & Wilson, 1999). Independent sample *T*-tests were then used to chart differences in the affective (Table 1) and behavioural (Table 2) measures tested.

Table 1: Comparison of Affective Consumption Measures of FS and Non FS Groups

	AVE	Alpha	FS Players (n=86)	Non FS Players (n=96)	T	Sig
MSSC Achievement (3)	0.74	0.90	5.62	4.99	3.499	.001
MSSC Knowledge (3)	0.66	0.82	5.73	5.30	2.690	.008
MSSC Aesthetics (3)	0.58	0.80	5.54	4.31	5.896	.000
MSSC Social (3)	0.70	0.88	4.67	4.52	.656	.513
MSSC Drama (3)	0.60	0.81	6.15	6.02	.723	.471
MSSC Escape (3)	0.76	0.90	5.25	4.75	2.284	.024
MSSC Physical Skills (3)	0.78	0.91	6.30	5.85	5.659	.000
POA Players (3)	0.52	0.76	5.44	4.35	6.404	.000
POA Team (3)	0.81	0.89	6.14	4.64	2.912	.004
POA Coach (3)	0.62	0.86	2.94	2.34	6.925	.000
POA Sport (3)	0.54	0.78	5.53	3.79	3.887	.000
POA League (3)	0.70	0.87	4.27	3.45	7.357	.000
Team Identification (7)	0.74	0.95	46.40	34.44	4.279	.000
Psychological Commitment to Team (14)	0.56	0.91	68.56	61.42	6.105	.000
Attitudinal Loyalty (6)	0.76	0.96	51.19	41.30	6.355	.000
Behavioural Loyalty (6)	0.63	0.91	34.85	26.82	3.499	.001

Note: Number of items per composite or mean calculated construct in parenthesis

Differences in Affective Consumption

Results (see Table 1) showed that FS players were statistically higher on most motivations to consume sport (motivations relating to social experiences and the drama of the sport were insignificant) and to all points of attachment to the sport. Team Identification, Commitment to Team and both attitudinal and behavioural measures of loyalty were also higher for FS players. The most pronounced differences are shown in the overall sport as a point of attachment and in the level of identification individuals have with their team.

Table 2: Comparison of Behavioural Consumption Measures of FS and Non FS Groups

	FS Players (n=86)	Non FS Players (n=96)	T	Sig
Live Games (own team)*	7.7	5.4	3.103	.002
Live Games (other team)*	4.4	1.7	4.192	.000
TV Games (own team)*	13.3	9.3	3.936	.000
TV Games (total per week)	4.0	2.3	5.208	.000
Merchandise Spend**	2.4	1.6	4.197	.000
Gambling Activities**	3.2	1.6	6.380	.000

*Figures represent games per season

** Consumption measured on a scale of 1-5 (merchandise) and 1-7 (gambling) to allow comparison

Differences in Behavioural Consumption

Results (see Table 2) show that FS players had significantly higher levels of attendance and televised consumption of both their supported team and other team's games. Merchandise spending and the level of sports gambling were also higher for FS players.

Discussion

While FS has been prefaced primarily as a complementary activity to sport consumption, little research has sought to quantify the actual effects of FS participation. While its popularity dictates that sports managers engage with it, how FS should be managed, commercially leveraged and integrated with traditional products remains poorly understood. The survey method and use of existing measurement scales successfully provided comparisons between FS players and non players sport consumption with findings presenting the first survey-derived data into FS research. This study shows that FS players rank higher on each level of affective and behavioural consumption, indicating FS players appear more involved and undertake more activities than non FS playing fans of the sport. The research supports Dreyer et al's (2007) key qualitative findings surrounding FS player's higher allegiance to players and increased levels of media consumption. However, numerous other characteristics of consumption are also higher, including attachment to teams and team loyalty. As such, evidence suggests FS is likely to be a complementary activity given FS players are greater consumers of the sport. However, causality in the relationship between FS play and increased sport consumption pose further questions and present as the next logical step in this research stream.

Although representative of the FS playing demographic, we note the convenience sample limits the generalisability of results. However, comprehensive and consistent differences seen here encourage further research. Most significantly, they highlight the importance of future FS research including studies that allow determination of causality in the relationship between FS and engagement and consumption of the sport. While requiring a greater sample than the current study, longitudinal tracking studies of individuals, capturing their attitudes and behaviours as they move from FS novice to experienced player, are essential to truly understand whether players are shifting their behaviours, attitudes and allegiances as a direct result of playing. Only then can managers be advised on how FS can be most effectively incorporated into their other practices aimed at growing and satisfying supporter bases.

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Reviewer: 1	
Suggestions for Improving this Paper: As I like this paper a lot my suggestions are all editorial. Abstract, line 4 possessive apostrophe after the s on consumers; line 5 ...competes [with]... would read better.	Change made in paper.
Background: bottom of 2nd para - can you state that the most prominent demographic group is males under 30 here so that we can see the contrast. Line 5 of para 3, word educational - is there a word missing after it? Line 8 "on what sort of sport consumers play FS" - just a little clumsy - can you improve that? And 3rd line from bottom page 1 individual's (possessive apostrophe).	Change made in paper. Reference also added here to support gender differences as discussed in past research (Levy, 2003)
Research Issue: 4th para (page 2) 3rd line "thus complement" perhaps "thereby complementing"; 2nd last line in para 5 "Our research question [then] instead of "there".	Changes made in paper.
Method (page 3) 2nd para - here I was momentarily confused with the emphasis of who = the sample. If you were to rewrite this para from the second line by: ...convenience sample [of AFL supporters] drawn from undergraduate and postgraduate students [delete "and known AFL supporters"] ... then the sentence beginning "Only those nominating themselves as AFL fans..." could also be deleted. I think we as readers can grasp OK that you would have a filter question about AFL support. Para 3 - end of first sentence - do we have a reference(s) to substantiate "suggested in past conceptual and qualitative work"?	Change made in paper. Reference added here (Dreyer et al, 2007)
Results: Instead of 47% (numeral) to start sentence could we have "Nearly half (47%) ..." and then the word "predominately" is really "predominantly"; line 3 add "FS" before "participation rate", and last line (of page 3) has "also" and "as well" in it - one of them is redundant.	Changes made in paper.
The rest flows beautifully; only in References do I see Levy citation - doctoral thesis should = doctoral.	Change made in paper.

Reviewer: 2	
Suggestions for Improving this Paper: More thorough proof-reading of the article is required. Grammatical errors were found in the article. The author(s) may wish to consider the following corrections:	
- "consumer's" change to "consumers" (abstract)	Changes made in paper.
- "individuals" change to "individual's" (p.1)	Changes made in paper.
- "increase education and involvement levels thus complement" change to "complementing" (p.2)	Changes made in paper.
- "our research question there" change to "therefore" (p.2)	Changes made in paper.
More details on methodology and analysis procedures would be useful to provide in the abstract.	Some introductory detail has been added to the abstract regarding the method as per below in line

	<p>with the reviewers comments. This is however limited given the 120 abstract limit.</p> <p><i>“Data was collected from surveys (n=182) of AFL fans, with findings indicating...”</i></p>
<p>Need to explain why the cognitive element of consumption is not investigated here. This may involve clarifying the scope of the research. As it is, the reader is left wondering why the cognitive element is less relevant to Fantasy Sports.</p>	<p>By focusing on just two elements it was not our intention to portray the cognitive aspect as less relevant. The cognitive enquiry does form part of the overall research but given the 5 page limit of this submission, does not form a part of this paper. This has been further clarified in the background section of the paper on the second page.</p> <p><i>“Given space limitations, this paper specifically focuses specifically on two elements of consumption, with the cognitive element a planned component of future studies.”</i></p>
<p>More information is required on non-existing scales used (i.e. those not previously developed by other authors).</p>	<p>We are not aware of any non-existing scales used in the collection or analysis. We admit this may not have been totally clear and as such this has been further clarified in the method section of the paper.</p> <p><i>“The final four parts collected information on Motivations for Sport Consumption, Connective Focus, Team Identification and Attitudinal and Behavioural Loyalty measures, All of these measures were adapted from existing scales”</i></p>
<p>In the initial description of the sample in the results section (p3), it is noted that Fantasy Sports play is more likely if AFL is in the top 3 sports as nominated by the respondent. How was this analysed? Was this a statistically significant difference?</p>	<p>This sentence has been removed in the revised version. For reference, the differences stated were significant.</p>
<p>Regarding paragraph 1 of the discussion section: restating the contribution of the article in this length is not required. Some of this space could be used for giving further attention to describing and justifying the study's methodology.</p>	<p>Much of the noted paragraph (first paragraph of the discussion section) has been removed in line with the reviewers comments. Some additional commentary regarding the appropriateness of the method in this study has been included in the first paragraph of the discussion section.</p> <p><i>“The chosen survey method and use of existing measurement scales was successful in providing a source of comparison between FS players and non</i></p>

	<i>players consumption with findings presenting the first survey-derived data into FS research.”</i>
<p>Regarding the last paragraph (p.5), it is perhaps worthwhile to acknowledge the challenge involved in the proposed future research. Longitudinal studies are challenging at the best of times - in such a limited initial sample proposed (fantasy sports participants) the retention of respondents and generation of useful data would be difficult!</p>	<p>We agree there would be little benefit in attempting to use the current study as a basis for longitudinal tracking. As such, a follow up study with a first wave collection of n>1000 is currently underway. To clarify this in the paper we include in our recommendation that future longitudinal studies are admittedly complex and should be large scale in nature, which we hope removes thoughts the current study is the basis for any longitudinal research. <i>“While requiring a larger sample than the current study, large scale, longitudinal tracking studies of individuals...”</i></p>

We thank the reviewers for their time and comments in regards to this paper

