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Publication details

Post-print of: Hing, N, Vitartas, P & Lamont, M 2013, 'Gambling sponsorship of sport: an exploratory study of links with gambling attitudes and intentions', *International Gambling Studies,* vol. 13, no. 3, pp. 281-301.
Published version available from:
http://dx.doi.org/10.1080/14459795.2013.812132

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Title of submission:

Gambling Sponsorship of Sport: An Exploratory Study of Links with Gambling Attitudes and Intentions

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Type of paper:

Academic paper

Funding

Southern Cross University Internal Research Grant

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Gambling Sponsorship of Sport: An Exploratory Study of Links with Gambling Attitudes and Intentions

Abstract

Gambling sponsorship of sport is increasingly prolific, but also contentious. Underpinned by the Theory of Reasoned Action (TRA), this study explores relationships between gambling sponsorship, and attitudes and intentions relating to gambling, in the context of a major Australian football competition heavily sponsored by gambling companies. Data were gathered via two online surveys (N = 212). Analysis confirmed that attitudes and social norms predicted gambling intention. Further, attitudes to gambling and gambling intention were positively associated with response to gambling sponsorship. Viewing televised football matches, perceptions about sponsor–event fit and attitude to gambling sponsorship were associated with respondents' interest in, favourable attitude towards, and propensity to use the sponsors' products. Findings suggest that exposure to gambling promotions during televised sport may encourage gambling intentions, and that gamblers scoring higher on the PGSI are more likely to be exposed to these promotions, view them favourably, be interested in the sponsor's products, and be willing to use them. As such, these promotions may trigger gambling amongst problem and recovering problem gamblers. While further research is needed to empirically support any case for regulatory change, this exploratory study provides a foundation upon which future research into gambling promotion during sport can build.

Keywords

Gambling, sport sponsorship, gambling promotions, theory of reasoned action, attitude, social norms, intention

Introduction

Sponsorship is a widely used tool in the marketing mix of contemporary business organisations because of its capacity to enhance brand awareness, sales, brand image and market share (Carter & Wilkinson, 2000; Scott & Suchard, 1992; Stotlar, 1999). While sponsorship is used to market a spectrum of products and services, sport sponsorship has been especially favoured by organisations promoting potentially harmful products or services (Howard & Crompton, 1995). While alcohol and tobacco sponsorship is now restricted in many jurisdictions (Howard & Crompton, 1995; McDaniel & Mason, 1999), a more recent and often unregulated trend is the prolific sponsorship of professional sport by gambling companies (Danson, 2010; McKelvey, 2004).

While several previous studies have examined links between sponsorship and the awareness, uptake and consumption of harmful products, especially tobacco, this paper reports on what appears to be the first empirical study of these issues in the context of gambling sponsorship. This is surprising, given clear evidence that gambling can cause substantial harm to individual gamblers, their families and communities. Indeed, problem gambling is recognised as a significant public health issue in many countries (Productivity Commission, 2010; Shaffer & Korn, 2002) and occurs when an individual exhibits excessive gambling behaviour that is associated with harmful effects (Blaszczynski, Ladouceur & Shaffer, 2004). The influence of gambling sponsorship of sport on gambling behaviour and problem gambling therefore warrants examination. Should empirical research establish a link in this regard, appropriate regulation of gambling sponsorship may be needed. Regulation would have significant managerial implications for both gambling sponsors and sporting organisations that benefit from this sponsorship (Lamont, Hing & Gainsbury, 2011), but whether it would have any impact on gambling and problem gambling is unknown. This is because no research has yet examined whether gambling sponsorship of sport, and exposure

of sport audiences to the associated gambling promotions during sporting events, currently impact on gambling and problem gambling.

An extensive research program is required to thoroughly test for links between gambling sponsorship of sport, the associated gambling promotions, and gambling behaviour and gambling problems. The present study is a first step in this direction, although necessarily constrained by lack of prior research and the exploratory approach required in any new line of enquiry. The study extends the Theory of Reasoned Action (TRA) (Fishbein, 1967; Fishein & Ajzen, 1975) to examine the relationship between gambling sponsorship, and attitudes and intentions relating to gambling. Specifically, and in the context of a major Australian football competition extensively sponsored by gambling companies, the study aims to:

1) test the relationships in the TRA in the context of gambling;
2) examine whether Attitude to Gambling (a key variable in the TRA) is associated with Gambling Sponsor Response (the degree of interest in, favourability towards and propensity to use the sponsor); and
3) determine whether Gambling Sponsor Response is associated with the degree of Exposure to Sponsorship Marketing, Perceived Sponsor-Event Fit, Perceived Sponsor Sincerity and Attitude to Gambling Sponsorship of the Event.

This paper firstly provides some context on the sponsorship and marketing of harmful products, before testable hypotheses are developed. The study's methods, results, discussion and conclusions are then presented.

Sport Sponsorship and the Marketing of Harmful Products

Back in 1995, Howard and Crompton noted that the tobacco, alcohol and fast/junk food industries have historically been the most prominent sponsors of sport (Howard & Crompton, 1995). Similarly, a more recent study reports that sport sponsorship in New Zealand is

dominated by alcohol, unhealthy food and gambling companies (Maher, Wilson, Signal & Thomson, 2006).

Many jurisdictions have now restricted or banned tobacco sponsorship, given evidence that such sponsorship can enhance brand recall, which can heighten the likelihood of experimentation with tobacco products (e.g. Aitken, Leathar & Squair, 1986; Hoek, Gendall & Stockdale, 1993; Ledwith, 1984; McDaniel & Mason, 1999; Sparks, 1999; Vaidya, Naik & Vaidya, 1996). However, regulatory restrictions on alcohol and fast food sponsorship are typically far more lenient than on tobacco sponsorship because there is no safe level of tobacco consumption, whereas consumption of alcohol and fast food is reportedly safe in moderation (Independent Sport Panel, 2009).

Today, sponsorship of professional sport by gambling companies is becoming increasingly prolific. For example, gambling sponsorship is now highly visible on the uniforms of several English Premier League teams (Danson, 2010). In Australia, sponsorship by gambling providers, online sportsbetting agencies, gaming machine manufacturers and gaming venues is widespread within well-supported and widely televised football leagues (Fitzsimmons, 2009; Thomas, Lewis & Duong, 2012) and during telecasts of international professional cricket matches (Wilson, 2011). Indeed, Australian television advertising for online bookmaker services has nearly quadrupled over the past two years alone to a spend of AU$45 million during 2011 (Jackson, 2012). In the United States, McKelvey (2004) also notes an increased prevalence of these “marketing alliances” (p. 193) between professional sport organisations and gambling companies.

While the potential influence of gambling sponsorship of sport on gambling attitudes, intentions and behaviour has attracted little scholarly attention, this type of sponsorship is raising concerns amongst some regulators (Lamont, Hing & Gainsbury, 2011). In Australia, the Federal Government announced it would legislate to ban the promotion of live betting

odds during sports broadcasts if the sporting and betting industries did not appropriately self-regulate the practice (Gillard, 2012). More recently, it announced an *Inquiry into the Advertising and Promotion of Gambling Services in Sport*, with terms of reference that cover its effects on children, problem gambling, sport integrity and public attitudes to sport.

Gambling sponsorship of sport is contentious for several reasons. The association of gambling companies with sport could convey a message that gambling is a safe activity, synonymous with watching sport. Similar to the effect celebrity endorsements can have, image transfer may occur by linking gambling with high profile sports and sportspersons (Chen, Lin & Hsiao, 2012; Keller, 1993). Professional sportspersons can be influential role models (Chen et al., 2012), particularly to young people (Bush, Martin & Bush, 2004). Consequently, promoting gambling through role modeling could normalise gambling amongst sports viewers and young sports fans. Researchers have also raised concerns about the longer term impacts of these gambling promotions on risky and problematic gambling behaviours, the exposure of children and adolescents to this marketing, the disjuncture between gambling and sports that are promoted as family-friendly and healthy, and the utilisation of fan support and team loyalty to market sports betting products (Derevensky, Sklar, Gupta & Messerlian, 2010; Lamont et al., 2011; McMullen, 2011).

As it stands however, little empirical knowledge exists about the influence gambling sponsorship has on sports audiences. However, there is a small but growing body of literature on the advertising and marketing of gambling more generally which has explored its effects on gambling and problem gambling. Most studies have focused on the effects of gambling advertising on youth and problem gamblers. For example, Korn's (2005) focus group research with youth aged 13-17 years revealed that they felt that the lottery advertisements were preparing them to gamble when they come of age (Korn, 2005a). Korn's follow-up study (2005b, p. 3-4) concluded that youth had been "overexposed" to commercial gambling

advertisements on television, that they were able to recall specific advertisements, slogans and jingles, and that youth problem gamblers reported being more likely to gamble on certain products if they had seen gambling advertisements for them. He concluded that the study clearly illustrated that commercial gambling advertising does influence youth's gambling attitudes, beliefs and behavioural intentions. Similar conclusions were drawn by Derevensky et al. (2010) in quantitative study of 1,147 youth aged 12-19, who reported high exposure to gambling advertising with a large proportion reporting that these messages prompt them to gamble. These advertisements appeared to encourage gamblers to maintain gambling habits and were particularly problematic for youth problem gamblers. Also focusing on problem gamblers, Binde's (2009) study of 25 former or current problem gamblers found that, for some of them, gambling advertising increased their already high involvement in gambling and/or made it harder for them to adhere to a decision to reduce or abstain from gambling. Additionally, several studies have content analysed gambling advertising and noted the overwhelmingly positive messages conveyed (McMullan & Miller, 2009). A review of regulatory approaches and evidence of the impact of gambling advertising on problem gambling concluded that, while the overall impact of advertising on problem gambling among the general population may generally be overestimated, some empirical evidence shows that advertising can influence perceptions of gambling; thus gambling advertising messages should therefore be closely assessed, in particular in relation to vulnerable groups like adolescents or problem gamblers (Planzer & Wardle, 2011). This is because, as discussed above, several studies show that adolescents are particularly receptive to messages and images conveyed in advertising and counter-advertising and that gambling advertising can trigger pathological gamblers to re-engage in gambling (Planzer & Wardle, 2011). However, as noted earlier, the current study is the first to focus on the relationships between sponsored gambling promotions during sport and the gambling intentions of sports viewers.

Conceptual Framework: The Theory of Reasoned Action

The Theory of Reasoned Action (TRA) was first proposed in the late 1960s by Fishbein (1967) and further refined during in the 1970s (Fishbein & Ajzen, 1975). The TRA contains three key constructs: attitude, subjective norms, and behavioural intention.

According to the TRA, an individual's *attitude* is the first determinant of behavioural intention (Hill, Mann & Wearing, 1996). Attitude toward a particular behaviour is based on an individual's favourable or unfavourable evaluation of the behaviour in question (Conner, Sheeran, Norman & Armitage, 2000). The TRA presents *subjective norms* as the second predictor of behavioural intention (Bagozzi, Moore & Leone, 2004). These are an individual's perceptions of social pressures (normative beliefs) to perform or not perform a particular behaviour. Together, behavioural attitude and subjective norms lead to a behavioural intention. *Behavioural intention* indicates an individual's readiness to perform a given behaviour, and is thus considered the immediate antecedent of *behaviour* (Ajzen, 2002).

The TRA was later extended to the Theory of Planned Behavior (Ajzen, 1985; Ajzen & Fishbein, 1980) by the addition of *perceived behavioral control* (PCB) as an extra antecedent to intention, and *behavior* as the result of behavioral intention. However, the construct of PCB has not held up in previous applications of the TPB to gambling (Martin et al., 2010; Oh & Hsu, 2001; Sheeran & Orbell, 1999; Walker, Courneya & Deng, 2006), while testing whether behavioral intention leads to the behaviour requires use of follow-up studies, although several studies have used past gambling behaviour as a proxy for future gambling behaviour (Martin et al., 2010; Moore & Ohtsuka, 1999; Neighbors et al., 2007), with obvious limitations. Thus, the TRA was considered a suitable foundation for this first exploratory study into the links between gambling sponsorship of sport and attitudes and intention to gamble.

The TRA is deemed a suitable foundation for the current research for several additional reasons. First, the TRA/TPB has received considerable attention in the literature and is well supported by empirical evidence (Ajzen, 1991). Intentions to perform behaviours of different kinds have been predicted with high accuracy from attitudes toward the behaviour, subjective norms, and PBC; and these intentions, together with PBC, account for considerable variance in actual behaviour (Ajzen, 1991).

Second, while the TRA/TPB is used in a wide range of contexts, it is particularly prevalent in health research (Stead, Tagg, MacKintosh & Eadie, 2005) and research into use of harmful products, with a plethora of studies applying the model to understand behaviours such as alcohol and drug consumption (Marcoux & Shope, 1997) and smoking (Norman, Conner & Bell, 1999).

Third, the TRA/TPB suggests it is possible to influence purchase intention and behaviour (Hyde & White, 2009). Therefore, the model also underpins some advertising, public relations and marketing efforts (Bamberg, Ajzen & Schmidt, 2005). More saliently, the TRA/TPB has been used to test the influence of advertising on certain health-related behaviours. For example, a longitudinal study by López et al. (2004) surveyed 3,664 Spanish children aged 13-14 years at basecase and 6, 12 and 18 months to investigate the relationship between the number of identified tobacco advertisement brands at basecase and smoking status across time. They reported that the more advertisements identified at basecase, the greater the risk of the adolescent becoming a smoker. They concluded that increased awareness of cigarette advertising is associated with a higher smoking incidence.

Fourth, the TRA/TPB has been successfully used in gambling research, although as noted, encountering difficulties with the construct of PCB. Key areas of focus have included gambling in casinos (Oh & Hsu, 2001; Phillips, 2009; Song, 2010), online gambling (Jolley, Mizerski & Olaru, 2006), purchase of lottery tickets and scratchcards (Sheeran & Orbell,

1999; Walker, Deng & Dieser, 2005; Wood & Griffiths, 1998), the role of ethnicity and gender in gambling (Walker et al., 2005; Walker, Courneya & Deng, 2006), gambling by children and young people (Chalmers & Willoughby, 2006; Moore & Ohtsuka, 1997; Wood & Griffiths, 2004) and the gambling behaviour of college students (Larminer & Neighbors, 2003; Moore & Ohtsuka, 1999; Neighbors et al., 2007; Sheeran & Orbell, 1999; Thrasher, Andrew & Mahoney, 2007). In previous studies of gambling, the TRA/TPB has been subjected to various modifications and alternative conceptualisations (Oh & Hsu, 2001), but none have considered the role of gambling sponsorship or advertising.

Overall, previous studies suggest that the TRA/TPB can explain gambling intention and behaviour and, when applied to gambling attitudes, it increases the likelihood of predicting whether a person will initiate gambling behaviour (Wood & Griffiths, 2004; Oh & Hsu, 2001). For example, Miller and Howell (2005) found that attitudes and subjective norms, along with perceived behavioural control, predicted gambling intentions in relation to the purchase of lottery tickets amongst 170 secondary school students. Moore and Ohtsuka (1997) also found that gambling intentions were significantly predicted by attitudes and subjective norms amongst 1,017 adolescents. Their findings were later replicated amongst a sample of 215 late adolescents and adults, where the more positive the attitude toward gambling, and the more positively the norms of significant others to gambling were perceived, the greater the intention to gamble (Moore & Ohtsuka, 2009). Oh & Hsu's (2001) study of 485 gamblers in Iowa US also confirmed that attitudes and subjective norms are significant predictors of intentions, as did Sheeran and Orbell's (1999) studies of 200 UK lottery players and 111 UK university students. Thus, the efficacy of the TRA in predicting gambling intentions is well supported in the literature and so is an appropriate foundation for our first hypothesis:

H_1 Attitude to Gambling (H_{1a}) and Subjective Norms about Gambling (H_{1b}) predict Gambling Intention.

The effects of sport sponsorship

Sport organisations at all levels, particularly professional sports, are now reliant on sponsorship to fund delivery of their programs (Independent Sport Panel, 2009). Indeed, contemporary sporting fixtures at any level rarely occur without some corporate sponsorship. In return, sponsors of sport generally expect their sponsorship initiatives will have positive effects for their organisation, product or brand, and bottom line (Brown, 2000).

The importance of sponsorship effectiveness to the sponsoring organisation is reflected in research efforts, with an international review (Walliser, 2003) finding that most sponsorship research has focused on measuring sponsorship effects. Most academic studies use awareness as the key indicator of effectiveness, and to a lesser extent image transfer (Walliser, 2003). However, enhanced awareness and image of a sponsor do not appear sufficient to shape enduring attitudes to a sponsor or its products. Indeed, several studies confirm that brand awareness or recall rises shortly before and during the sponsored event, but then falls back close to initial levels a few weeks later (Walliser, 2003). Similarly, research indicates that image effects are typically temporary (Walliser, 2003). Further, non-academic studies (consultancies) tend to use an even weaker measure to evaluate sponsorship – the quantity of exposure the sponsoring brand achieves through media coverage of the event – yet the underlying assumptions of this approach, that exposure is a necessary and sufficient condition for sponsorship success and that more exposure always adds to effectiveness, are clearly flawed (Speed & Thompson, 2000).

Consequently, Speed and Thompson (2000) argue for the superiority of three alternative indicators that reflect a hierarchy of sponsorship effect: 1) *interest*, or the extent to

which sponsorship of a particular event affects attention to the sponsor and its other promotions; 2) *favourability* towards the sponsor; and 3) *use*, or willingness to consider purchasing the sponsor's product. Together, they termed these indicators "sponsor response" (Speed & Thompson, 2000, p. 231).

However, Speed and Thompson's research (2000) was restricted to identifying predictors of sponsor response. No subsequent research considers the influence of sponsor response on sport fans' attitudes toward the product being promoted. Yet it is logical that favourable sponsor response will result in more positive attitudes toward that product in a similar way to which approval by family and friends shapes subjective norms. For example, a study of young males in New Zealand reported that "exposure to a tobacco sponsorship advertisement had a greater effect on non-smokers than smokers" (Hoek et al.,1993, p. 33), suggesting that the sponsorship positively impacted upon these young males' response to tobacco companies and thus smoking in general. Given the focus of the current study on gambling sponsorship of sport, the following hypothesis is proposed:

H_2 Gambling Sponsor Response (interest, favourability and use) is positively associated with Attitude to Gambling.

Determinants of sponsor response

A further stream of sponsorship research, although very limited, focuses on the determinants of sponsor response. In his international review, Walliser (2003) notes evidence that recall increases as a function of duration of exposure to sponsors, previous brand awareness of sponsors, message length and design, socio–demographic variables of the spectators, and spectator involvement with, and interest in, the activity sponsored. Alternatively, in relation to sports sponsorship and drawing on classical conditioning research in advertising, Speed and Thompson (2000) propose several determinants of sponsor response. In testing these

determinants amongst a sample of university students, they report that Perceived Sponsor-Event Fit, Perceived Sponsor Sincerity, Perceived Ubiquity of the Sponsor, and Attitude Toward the Sponsor are key factors in generating a response from sponsorship.

Overall however, research into the determinants of sponsor response is sparse. Thus, findings from research into the effects of advertising are also instructive, especially those focusing on potentially harmful products. Numerous studies have empirically explored the relationship between exposure to advertising and the uptake/consumption of tobacco (e.g. Evans, Farkas, Gilpin & Berry, 1995; Pierce, Choi, Gilpin, Farkas & Berry, 1998; Tye, Warner & Glantz, 1987; Unger, Johnson & Rohrbach, 1995), alcohol (e.g. Connolly, Casswell, Zhang & Silva, 1994; Ellickson, Collins, Hambarsoomians & McCaffrey, 2005; Snyder, Fleming Milici, Slater & Sun, 2006; Unger et al., 1995), and unhealthy foods (e.g. Dixon, Scully, Wakefield, White & Crawford, 2007). All of these studies conclude that exposure to advertising contributes to uptake/consumption of these products, particularly among adolescents. Thus, exposure to sponsorship marketing is also likely to influence sponsor response.

In developing the following hypothesis, the independent variables are drawn from Speed and Thompson's (2000) study, except for Ubiquity of the Sponsor. This is excluded because ubiquity was found not to be related to the favourability dimension of sponsor response in their study.

H_3 Gambling Sponsor Response is a function of Exposure to Sponsorship Marketing, Perceived Sponsor-Event Fit, Perceived Sponsor Sincerity and Attitude to Gambling Sponsorship of the Event.

Methodology

Research design

A quantitative methodology was considered most appropriate for this study, given the use of the TRA as the theoretical basis, its capacity to be tested using existing scales and the desire to test the formulated hypotheses. A survey questionnaire was therefore developed based on the elements of the research model (Figure 1) and focusing on a major Australian professional football competition. Figure 1 shows two sets of arrows for each proposed relationship. While the TRA proposes uni-directional relationships between the variables in Figure 1, the cross-sectional nature of this study is unable to ascertain direction of causality. Thus, a second set of bi-directional arrows pertaining to each of the three hypotheses is also depicted in Figure 1.

Figure 1 here

The research context

A major Australian professional football competition was chosen as the context for this study for two main reasons. First, the competition has a strong supporter base, particularly in the eastern states of Australia, and is widely televised on free-to-air and pay television. The cumulative television viewing audience for the competition in 2011 was 128 million, the largest of all football codes in Australia (Masters, 2011). Second, this competition is heavily sponsored by gambling companies. A content analysis of the competition's website and the 16 competing clubs' websites conducted by Lamont et al. (2011) found 14 of the 16 teams had sponsorship arrangements with gambling companies in the 2009 season. Sponsors included sports betting agencies, manufacturers of electronic gaming machines (EGMs), EGM software makers, and various gaming venues. In total, 43 gambling companies provided sponsorship to this competition in some capacity. This sponsorship manifests during televised

match broadcasts as gambling company logos on player uniforms and stadium signage, sponsored segments, commentary and display of live betting odds, studio cross-overs to sports betting company representatives, and commercial break advertising. The competition's popularity, combined with a strong presence of gambling sponsorship and promotion, means the competition is a suitable context for this study.

Sampling and data collection

Given this is the first known empirical exploration of gambling sponsorship of sport and its relationship with gambling attitudes, social norms and intentions, the research team decided to initially administer the survey to a sample of university students. This will inform further refinement of the theoretical model and survey instrument, if needed, before surveying a broader population sample. Nevertheless, while the convenience and low cost of surveying students were undoubtedly attractive considerations, the sample is also considered appropriate because a high proportion of university students are young adults. Both non-lottery forms of gambling and watching football are popular activities amongst young Australian adults in general (Delfabbro, 2009). Additionally, most gambling sponsors of the chosen football competition are sports betting organisations, with 18-24 year old males being the largest market for this type of gambling in Australia (Delfabbro, 2009). Further, this age group is at comparatively higher risk for gambling problems than other age groups, with problem gambling rates in the 18–30 year age range tending to be almost double those in older age groups in Australia (Delfabbro, 2009). Thus, a large proportion of the university student sample is expected to be part of the key target market for both the football competition and its gambling sponsors, and an at-risk group for the development of gambling problems.

After gaining ethics approval from the researchers' university, the survey was administered online using a web-based survey program (*Qualtrics*). Firstly, all students

studying at an Australian regional university were invited to participate except for those studying offshore via distance education. They were notified of the survey via email, with the project information attached. The survey was open for four weeks and coincided with the end of the football season. A prize draw was offered to encourage participation, with 142 usable responses received, for a response rate of about 2.2%.

To increase the sample size, the same online survey was administered at a second Australian university based in a highly urbanised area. This survey was conducted four weeks after the subsequent football season commenced. A further 70 usable responses were obtained providing a total sample of 212 respondents (total response rate of about 2.0%). Independent samples tests of responses from the two samples indicated some differences between the two groups for the variables included in this study. These differences were attributed to the samples having different mean ages (31 vs 24 years), the first university having a higher proportion of distance and part-time students who tend to be older. Thus, the non-random nature of the self-selected sample and possible sample bias should be considered in drawing inferences from this research (Berk, 1983). Nevertheless, because the research is concerned only with testing the three hypotheses and not with measuring prevalence of the variables, the sample provides an adequate basis for this exploratory enquiry.

Questionnaire development and variable measurement

The following scales measure the variables in Figure 1.

Gambling Intention was measured using the Gambling Intention Scale (Moore & Ohtsuka, 1997). It asks how strongly the respondent agrees or disagrees on a five point Likert scale that they intend to gamble on eight different types of gambling (poker machines, lottery or lotto tickets, horses or greyhounds, sporting events, table games, casino games, poker tournaments or keno) in the next two weeks.

Attitude to Gambling was measured using the Gambling Attitudes Scale (Moore & Ohtsuka, 1997) which asks how strongly the respondent agrees or disagrees on a five point Likert scale with 12 statements (e.g. “gambling is a fun activity”, “moderate gambling is harmless”, “gambling is just another hobby”).

Subjective Norms about Gambling were measured using the Subjective Norms: Family and Friends Scale (Moore & Ohtsuka, 1997) which asks how strongly the respondent agrees or disagrees on a 5 point Likert scale with 12 statements about how their family and friends feel about gambling (e.g. “most of my friends approve of gambling”, “most of my friends gamble sometimes”, “people in my family often go to places where gambling occurs”). As per Moore & Ohtsuka (1997), the family and friends items were multiplied by respective motivation to comply with family and friends then summed to form a single indicator of Subjective Norms about Gambling.

Gambling Sponsor Response was measured on Speed and Thompson’s (2000) nine item Sponsor Response Scale using a seven point scale from strongly agree to strongly disagree. The Gambling Sponsor Response Scale contains three items to measure interest, three to measure favourability and three to measure use. The scale was adapted to make it specific to gambling sponsorship of the chosen event (e.g. “gambling sponsorship of [the football competition] makes me feel more favourable to the sponsor”).

Exposure to Sponsorship Marketing was measured by a single question: “During the current season, how often did/do you watch [the football competition] matches on television?” with response categories ranging from “never this season” through to “more than twice a week.”

Perceived Sponsor-Event Fit was measured using Speed and Thompson’s (2000) Sponsor-Event Fit Scale, a five item, seven point scale (from strongly agree to strongly disagree). The scale was adapted to make it specific to gambling sponsorship and the selected

football competition (e.g. “there is a logical connection between [the football competition] matches and gambling sponsors”).

*Perceived Sponsor Sincerit*y was measured using Speed and Thompson’s (2000) Perceived Sincerity Scale, a four item, seven point scale (from strongly agree to strongly disagree), adapted to make the scale specific to gambling sponsorship and the selected football competition (e.g. “gambling companies would probably support [the football competition] even if [the football competition] had a much lower profile”).

Attitude to Gambling Sponsorship of the Event. Measurement of this variable was adapted from Sparks (1999). Respondents were asked to indicate on a semantic differential scale whether “gambling sponsorship of (the football competition)” is “a bad thing – a good thing”, “hurts football’s image – improves football’s image”, ‘should be controlled by legislation – should not be controlled by legislation”, and “should not be allowed – should be allowed.”

The following two sets of variables were also measured:

Past Gambling Behaviour. Three measures of past Gambling Behaviour were obtained. First, respondents’ estimates of how much they spent in the previous 12 months on each of eight forms of gambling (buying lottery/lotto tickets, playing poker machines, betting on horses/dogs, sporting events, casino games, internet casino games, poker tournaments and keno), allowed a total yearly estimate to be calculated from respondent’s weekly/monthly or annual spend. Second, frequency of gambling on the eight forms of gambling in the previous 12 months was measured, with response categories ranging from “never in the past 12 months” through to “more often than once a week”. Third, the nine item Problem Gambling Severity Index (PGSI) was included, being the nationally accepted measure of problem gambling, with total scores allowing categorisation of respondents as non-problem gamblers, low risk gamblers, moderate risk gamblers and problem gamblers, according to the frequency

of problem gambling behaviours and consequences of that behaviour for themselves or others (Ferris & Wynne, 2001).

Socio-demographic variables. These comprise gender, age, state or territory of residence, whether employed in paid work or not, and student status (full or part-time, internal or external student, domestic or international student).

Data analysis

Data were analysed using SPSS statistical software (SPSS inc. 2009) Data cleaning was performed to remove cases with missing or incomplete data (n=53). Each of the measures used in the TRA was checked for reliability and the analyses indicated high internal consistency for each measure (Table 1). Based on respondents' reported Gambling Behaviour, the sample was split into: a non-gambler group (n=68) – did not gamble at all or only bought lottery/lotto tickets in the previous 12 months; and a gambler group (n=144) – participated in one or more of the seven non-lottery forms of gambling in the previous 12 months. Summary details for each variable are presented in Table 1 for the gambler and non-gambler groups. As could be expected, the gambler group has higher mean scores for Gambling Intention, Attitude to Gambling and Past Gambling Behaviour as evidenced through their frequency of gambling, annual expenditure and higher PGSI scores. Also apparent from the results are higher scores for the gambler group for Gambling Sponsor Response, Exposure to Sponsorship Marketing and Attitude to Gambling Sponsorship of the Event.

Table 1 here

Participants

The study attained 212 usable responses representing a broad cross section of students by age, with a range from 18 to 68 (mean 28.8 years). Most respondents were female (54%) and from the eastern states of Australia (predominantly NSW, 59%). A small proportion were international students (4.2%) from China, Asia, the Middle East, Africa and North America. Most respondents were enrolled as full-time students (75%) and attended internal classes, as opposed to distance or off-campus study.

Just over half the sample indicated they were strong supporters of the selected football competition (51%), with over half (53%) agreeing they would like to attend matches in person. Over half the sample indicated they enjoyed watching football coverage on television (61%) although only one-third (35%) agreed that football matches are important to them. Males scored significantly higher ($p<0.01$) than females on their level of interest for all these questions, with females holding neutral to favourable views toward the game, with the exception of whether football matches are considered important to them where only one-quarter (25%) of female respondents agreed with the statement.

Results

Awareness of gambling sponsors

Awareness of gambling sponsors was measured through aided and unaided recollection of brands that sponsored the selected football competition. Aided recall included 11 sports gambling sponsors: a traditional gambling outlet, 8 online betting organisations, a manufacturer of poker machines and a lottery. All had been sponsors of the football competition in the relevant seasons. Awareness of the 11 sports companies was varied; however, 63% of respondents agreed they became aware of at least one of the online betting brands from watching this football competition on television.

Unaided recall was obtained by asking for up to three brands associated with the selected football competition. This resulted in 429 responses with a diverse range of brands from numerous industries, including five mentions of tobacco advertisers who have not been associated with this football competition for over 15 years. There were 40 unaided mentions of sports gambling companies from the sample (9%).

Gambling attitudes and past gambling behaviours

Views on gambling were mixed with 53% of males indicating they approve of gambling and 17% disagreeing with the statement. This contrasts to only 29% of females agreeing they approve of gambling and 43% disagreeing with the statement. In both groups, a large proportion (males 29%, females 31%) indicated they neither agree nor disagree with the statement suggesting some ambivalence toward the activity.

Respondents' attitudes were reflected in their past gambling behaviour and yearly gambling expenditure. Males indicated they had gambled AU$912 on average over the past 12 months with 20% indicating they had gambled over AU$1000. Only 16% did not spend any money on gambling. Female mean annual gambling was AU$179 with a higher proportion (25%) indicating nil expenditure on gambling. Only 4% of females indicated gambling more than AU$1000 in the past year. The findings are consistent with other gambling studies which have shown males to undertake more gambling than females (Delfabbro, 2009).

Amongst the 212 respondents, 152 (71.7%) scored as non-gamblers or non-problem gamblers, 27 (12.7%) scored as low-risk gamblers; 24 (11.3%) scored as moderate risk gamblers and 9 (4.2%) scored as problem gamblers on the PGSI. In comparison, the most recent NSW prevalence study reported that 87.9% of NSW adults are non-gamblers or non-problem gamblers, 8.4% are low-risk gamblers, 2.9% are moderate risk gamblers and 0.8%

are problem gamblers (Sproston, Hing & Palankay, 2011). While the small, non-representative sample in the current study means this comparison should be treated with caution, the university students in this sample do appear an at-risk group for gambling problems.

Gambling intention and past gambling behaviours

Comparisons of the correlations between Gambling Intention and the three Past Gambling Behaviour variables for the two groups are presented in Table 2. For the gambler group, all the items had significant and moderate to high levels of correlations. For the non-gambler group, all the correlations were significant, although weaker, with the exception of yearly gambling expenditure with Gambling Intention and PGSI. Gambling Intention and past gambling frequency were significantly and strongly/moderately correlated for the gambling and non-gambling groups respectively.

Table 2 about here

Model of gambling intention

The effect of the TRA variables was assessed on Gambling Intention using multiple linear regression, with results shown in Table 3. Attitude to Gambling and Subjective Norms about Gambling were significantly associated ($p<.01$) with Gambling Intention. The model is statistically significant ($F_{(2,211)}=42.08$, $p<.001$) and explained 28% of the variance (adjusted $R^2 =.280$) of Gambling Intention. The finding supports Hypothesis 1 in relation to the two TRA variables (Attitude to Gambling and Subjective Norms about Gambling) predicting Gambling Intention.

Table 3 about here

Gambling sponsor response

A confirmatory factor analysis (AMOS 20) with the three Gambling Sponsor Response components (sponsor interest, sponsor favourability and sponsor use) as three latent constructs was tested and led to a suboptimal solution ($Chi^2_{(df\ 24)}$ =36.14). As the inter-correlations between the three latent variables were relatively high (interest-use = .72, favourability-use = .81 and favourability-interest = .63) the variables become interchangeable. Therefore a single latent construct (Gambling Sponsor Response) consisting of all nine items measuring sponsor interest, sponsor favourability and sponsor use was assumed. A confirmatory factor analysis was carried out on the combined Gambling Sponsor Response construct and resulted in an acceptable final model ($Chi^2_{(df\ 18)}$ =9.46). RMSEA (.000), CFI (1.00) and GFI (.991) were above recommended cut-off values (Hair, Black, Babin & Anderson, 2010). Cronbach's alpha for the nine items was .94, suggesting strong reliability.

The impact of Gambling Sponsor Response on Gambling Attitude and Gambling Intention was evaluated in multiple regression analyses that incorporated the TRA variables (Table 4). A statistically significant model incorporating Gambling Sponsor Response ($F_{(1,211)}$=90.91, p<.001) that explained 30% of the variance (adjusted R^2 = .299) of gambling attitude was identified. The findings support Hypothesis 2 that Gambling Sponsor Response is positively associated with Attitude to Gambling.

Gambling Sponsor Response was examined further by including it with the TRA variables to evaluate Gambling Intention. A statistically significant model was identified ($F_{(3,211)}$=42.42, p<.001) and explained 37% of the variance (adjusted R^2 =.371) of Gambling Intention. All the predictor variables were significant (p<.001) with the exception of Social Norms (Table 4). The finding indicates that Gambling Sponsor Response is positively associated with *both* Gambling Attitudes and Gambling Intention.

Table 4 about here

Determinants of gambling sponsor response

The four factors hypothesised to affect Gambling Sponsor Response were tested using a multivariate regression. The predictor variables were the extent to which the respondent watched televised matches of the selected football competition during the past season, their attitude to football gambling sponsorship, the perceived sincerity of the gambling sponsor in assisting to develop the football code, and the perceived football-gambling fit. A significant model was identified ($F_{(4,211)}$=42.72) and accounted for 44% of the variance (Table 5). Attitude to Gambling Sponsorship had the highest standardised beta coefficient (.33), followed by Watching Televised Match Coverage (.25) Perceived Sponsor-Event Fit (.21) and Perceived Sponsor Sincerity (.15). The findings confirm Hypothesis 3 and indicate that respondent's attitude to gambling sponsorship followed by watching televised match coverage have the strongest association with the respondents' interest in, favourable attitude towards and propensity to use the gambling sponsors' products.

Table 5 about here

Summary of results

In summary, the results indicate:

- Full support for H_{1a} and H_{1b}, where Attitude to Gambling and Subjective Norms about Gambling predict Gambling Intention;
- Full support for H_2, that Gambling Sponsor Response (interest, favourability and use) is positively associated with Attitude to Gambling. Further, Gambling Sponsor Response was also found to be directly and positively associated with Gambling Intention;

- Full support for H_3, that Gambling Sponsor Response is a function of Attitude to Gambling Sponsorship of the Event, Exposure to Sponsorship Marketing, Perceived Sponsor Sincerity and Perceived Sponsor-Event Fit .

Discussion

The results of this study largely support the utility of the TRA and the results of other gambling studies reporting that Attitudes to Gambling and Subjective Norms about Gambling (family and friends) predict Gambling Intentions (e.g. Delfabbro & Thrupp, 2003; Martin, Nelson, LaPlante, Usdan, Umstattd, Perko & Shaffer, 2010; Moore & Ohtsuka, 1997; 1999; Oh & Hsu, 2001). Thus, this paper makes a small contribution to the application of the TRA/TPB in explaining gambling intention.

However, the paper's main focus is on understanding the association between exposure to gambling sponsorship of sport and gambling intention. Being the first known empirical foray into this relationship, this exploratory study will hopefully catalyse this new area of enquiry. The results show that a positive attitude to gambling sponsorship and more exposure to sponsorship marketing (as measured by frequency of watching televised football matches) are positively associated with Gambling Sponsor Response, which in turn is positively associated with Attitude to Gambling and Gambling Intention.

Naturally, a cross-sectional design, as used in this study, cannot determine the direction of causality underlying these associations. One interpretation of this finding is that exposure to gambling promotions during televised sport stimulates a positive view of gambling sponsorship and the gambling sponsors, which in turn engenders a more positive attitude towards gambling, which leads to stronger intentions to gamble. If this interpretation is correct, more exposure to gambling promotions during televised sport appears to encourage individuals to consider gambling more so than does less exposure to these gambling

promotions. As such, this interpretation lends weight to concerns that the sponsorship of sport by gambling operators and the accompanying gambling promotions during sport broadcasts are having an encouraging and softening effect on sports viewers in relation to gambling (Lamont et al. 2011; McMullen 2011; Thomas et al. 2012), an effect which seems likely to increase their overall gambling behaviour in the future, given previously identified links between gambling intention and future gambling behaviour (Moore & Ohtsuka, 1999; Oh & Hsu, 2001).

An alternative explanation is that individuals with stronger gambling intentions are more likely to have a positive attitude towards gambling, to watch televised sport which contains gambling promotions more often, and to be more positively receptive to gambling sponsors' messages. That is, their pre-existing positive attitude towards gambling and their intention to gamble in the future lead to a more favourable view of gambling sponsors of sport, more interest in the gambling sponsors' products, and more willingness to consider using these sponsors' products in the future. Under this interpretation, gambling promotions during televised sport might be more effective in persuading people who already gamble to use the brands advertised by the gambling products rather than encouraging more gambling by existing gamblers or gambling uptake amongst non-gamblers. That is, these promotions might be most effective in encouraging brand switching or brand loyalty, rather than encouraging more gambling *per se*. The strong correlations between gambling intention and past gambling frequency and expenditure provide some support for this explanation.

However, of concern is that PGSI scores were found to be positively correlated with gambling intention in this study, which in turn was positively associated with more frequent watching of sports broadcasts which contain gambling promotions, and higher receptivity to gambling sponsors' messages. These results indicate that problem and at-risk gamblers are more likely than non-problem gamblers to have greater exposure to these gambling

promotions and to be more likely to view the associated sponsors favourably, to be interested in the sponsor, and to consider using the promoted gambling products. These findings suggest that these gambling promotions are especially dangerous for problem gamblers who, as a group, are known to react to triggers for gambling including gambling advertising. For example, one study of 131 pathological gamblers found that almost half (46%) reported that gambling advertising triggered them to gamble (Grant & Kim, 2001). The second most common trigger was 'boredom/free time' (24%), and the third was 'thoughts of winning' (19%). Similarly, Binde (2009), Korn (2005b) and Derevensky et al. (2010) also found that gambling advertising appeared to trigger gambling amongst problem gamblers. Thus, exposure to gambling promotions during televised sport may encourage problem gamblers to gamble more and may also hinder recovery attempts by problem gamblers (Binde, 2009). Concerns about the longer term impacts of gambling promotions on risky and problematic gambling behaviours have also been raised by Derevensky et al. (2010), but in the context of the impact of gambling advertisements on adolescent gambling attitudes and behaviors. The current findings suggest that deleterious effects might be more immediate for current and recovering problem gamblers exposed to these gambling promotions.

The results of the current study provide some direction for the placement and targeting of gambling help and responsible gambling messages. Given the likelihood that these promotions can trigger gambling amongst problem gamblers and hinder problem gambling recovery efforts by catalysing relapse, the provision of gambling help information is essential during sports broadcasts where gambling is promoted. Providing this information would then encourage problem gamblers to contact a telephone or online gambling help service to assist in countering the immediate trigger to gamble that these promotions are likely to present. Further, while the message to "gamble responsibly" is already delivered during gambling promotions in Australian televised sport, this study's results imply that these messages could

be better tailored to target young male viewers, given this demographic was found to have a more positive response to gambling sponsors, a more favourable attitude to gambling, and stronger intentions to gamble than the other demographic groups.

Conclusion

Many researchers and commentators have called for tighter restrictions or a complete ban on gambling promotions during televised sport due to concerns that these promotions might be normalising gambling, encouraging gambling, and fuelling gambling problems (Derevensky et al., 2010; Lamont et al., 2011; McMullan, 2011; Thomas et al., 2012). This exploratory study has presented some empirical evidence that these concerns may be justified. However, on their own, the results of this study do not provide sufficient evidence to underpin a case for regulatory change, but they have hopefully provided some foundations for future research. Clearly, the current study was limited by a small, non-representative sample that was restricted to university students. It was also limited by its cross-sectional design that precluded a follow-up measure of gambling behaviour. Further evidence is therefore needed of the relationships found in this study before firm conclusions can be drawn.

Additional research is needed to test the extended TRA model as developed in this study, and preferably the full TPB model, amongst larger, general population samples and also amongst other sub-populations (e.g. children, adolescents, other cultural groups, other jurisdictions). The model could also be tested with different sport competitions sponsored by gambling companies or indeed other non-sporting products and services that receive gambling sponsorship. Additional or alternative determinants of Gambling Sponsor Response might be tested to better determine what builds susceptibility or resilience to gambling sponsorship marketing of potentially harmful products

Given the growing incidence of gambling sponsorship of sport and the links this study has found between exposure to gambling promotions during televised sport, positive responses to this sponsorship and enhanced attitudes to gambling and gambling intention, further research in this area appears warranted.

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Table 1. Summary of TRA Variables and Gambling Behaviour Mean Scores and Reliability Results

Construct	Mean (SD) Gambler n=144	Mean (SD) Non-gambler n=68	Number of Items	Cronbach alpha (overall)
Gambling Intention (range 1-5)	1.94(.76)	1.24(.43)	8	.86
Attitude to Gambling (range: 1-5)	2.99(.68)	2.29(.65)	12	.90
Subjective Norms about Gambling (range 10-50)	16.08(6.61)	11.06(4.67)	12	.77
Gambling Sponsor Response (1-7)	3.41(1.39)	2.14(1.13)	9	.94
Exposure to Sponsorship Marketing (1-7)	4.13(2.02)	2.56(1.84)	1	n/a
Perceived Sponsor-Event Fit (1-7)	3.90(1.45)	3.01(1.49)	5	.86
Perceived Sponsor Sincerity (1-7)	2.21(1.24)	1.68(.89)	4	.77
Attitude to Gambling Sponsorship of the Event (1-100)	31.57(21.60)	14.97(17.61)	4	.76
Frequency of Gambling (range 1-6)	1.71(.67)	1.09(.11)	8	.82
Annual Gambling Expenditure ($ value)	$713($1710)	$94($348)	8	n/a
PGSI score (0-27)	1.81(3.46)	.12(.50)	9	.90

Table 2. Pearson Correlation Coefficients of Gambling Intention and 3 Measures of Gambling Frequency for Past Year Gamblers (n=144) and Past Year Non-Gamblers (n=68)

	Gambling Intention	Gambling Frequency	Yearly Gambling $	PGSI Score
Gambling Intention	-			
Gambling Frequency	.78**/.53**	-		
Yearly Gambling $	.43**/.10	.61**/.30*	-	
PGSI Score	.37**/.40**	.49**/.14	.67**/-.03	-

* p<.05; ** p<.01

Table 3. Model of TRA for Gambling Intention

Model	Gambling Intention
Dependent Variable	Intention to Gamble
Constant (S.E.)	.19 (.17)
Attitude to Gambling (S.E.)	. 44**(.06)
Subjective Norms about Gambling (S.E.)	.02*(0.01)
F value (df)	42.08** (2,209)
Adjusted R^2	.28

* p<.005** p<.001

Table 4. Model of Gambling Attitudes and Intentions with Gambling Sponsor Response and TRA Variables

Dependent Variable	Gambling Attitude	Gambling Intention
	Beta Coefficient (SE)	Beta Coefficient (SE)
Constant	1.91(.10)	.28 (.16)
Gambling Sponsor Response	.29**(.03)	.20**(.04)
Gambling Attitude		.27**(.07)
Social Norms		.01 (.01)
F value (DF)	90.91 (1,210)	42.42 (3,208)
Adjusted R^2	.30	.37

** p<.001

Table 5 Model of Determinants of Sponsor Response

Dependent Variable	Sponsor Response	
	Beta Coefficient (SE)	Standardised Beta Coefficient
Constant	.71**(.22)	
Match viewing	.17**(04)	.25
Sponsor event fit	.20**(.06)	.21
Sponsor sincerity	.18*(.08)	.15
Attitude to gambling sponsorship	.02**(.00)	.33
F value (DF)	42.72 (4,207)	
Adjusted R^2	.44	

*p<.05; **p<.005

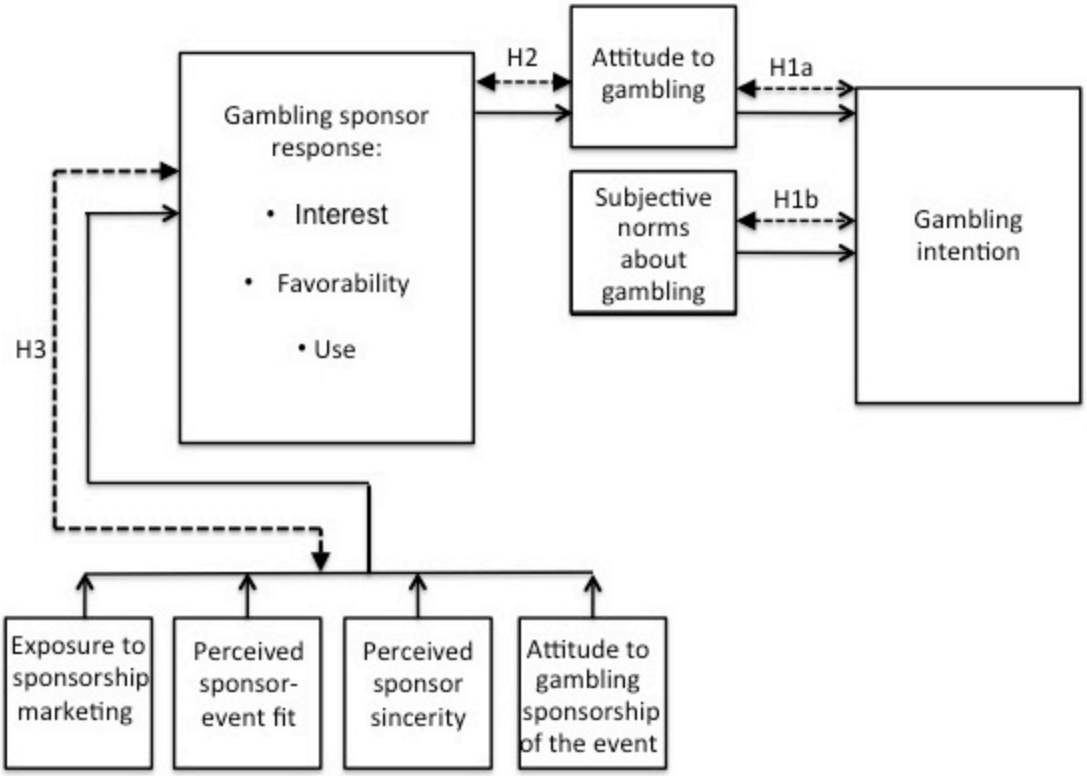

Figure 1. Research model and hypotheses