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Highlights

- Consumer attitudes, including trust, play a key role in driving online gambling behavior.
- An online survey was completed by10,838 online casino and poker players from 96 countries.
- The majority of online gamblers view the provision of responsible gambling features positively.
- Clarification of regulation and reducing player disputes would increase consumer trust in gambling sites.
- Regulated sites should aim to win consumer trust to compete with offshores sites.

Abstract

There is an insufficient understanding of consumer attitudes towards Internet gambling, which contributes to difficulties in developing policies to encourage the use of regulated online gambling sites. This research aimed to generate knowledge about consumer attitudes towards online gambling, specifically concerning the issues of player protection, regulation, and responsible gambling. An online survey was completed by 10,838 online casino and poker players from 96 countries. Responsible gambling features were generally viewed positively, particularly by casino game players, those who chased losses, and younger adults. Over one-third of participants reported having experienced a dispute with an online gambling operator. Respondents reported high levels of mistrust and concerns regarding online gambling and confusion regarding the appropriate regulation of Internet gambling. Consumer attitudes play a significant role in driving behavior and must be considered if regulators and operators are to effectively encourage online gamblers to use regulated gambling sites that include consumer protection and harm minimization measures. The results suggest that responsible gambling features, such as the ability to set spending limits, should be implemented on Internet gambling sites to increase consumer trust and favorable attitudes towards online gambling operators, and reduce disputes associated with excessive gambling.

INTRODUCTION

Internet use is increasing globally as a result of readily available high-speed, low-cost Internet access and Internet-enabled technology. Gambling operators are taking advantage of this trend, using innovative marketing campaigns to move into new markets (Lamont, Hing, & Gainsbury, 2011; McMullan & Miller, 2010). Internet gambling revenues have increased from approximately US$2.2 billion in 2000, to US$15.2 billion, in 2006, and are predicted to exceed US$43 billion by 2015, the equivalent of around 8-10% of global gambling revenues (Global Betting and Gaming Consultants; GBGC, 2011; Holliday, 2011; KPMG International, 2010). Increased recognition of the difficulties prohibiting Internet gambling suggests that further liberalization of online gambling will occur internationally, increasing participation (Gainsbury & Wood, 2011).

Internet gambling sites face competition from thousands of available options, including illegal offshore sites, making customer patronage and loyalty very important. Offshore sites refer to online gambling sites that are not regulated in the jurisdiction that a consumer is based and, depending on the regulation of each jurisdiction, may be providing online gambling services illegally. Unregulated sites may not offer strong consumer protection or responsible gambling features, posing a potential risk to players. User confidence, trust in regulators and operators, perception of consumer safety and responsible gambling measures, and regulation all pose potential constraints to the growth and success of Internet gambling (Dinev Bellotto, Hart, Russo, Serra, Colautti, 2006; Kim, Kim, & Park, 2010; McCole, Ramsey, & Williams, 2010; Shin, 2009). Customer attitudes play an important role in driving behavior including online purchases and consumer loyalty (Shergill & Chen, 2005; Jolley, Mizerski, & Olaru, 2006; McCole et al., 2010). It is important for regulators to understand Internet gambler's perceptions and attitudes in order to encourage use of regulated sites by addressing any potential barriers and meeting customer needs (Forsythe & Shi, 2003).

The implementation and maintenance of fair and responsible practices, appropriate regulation and codes of conduct is in accordance with a profitable business model as it increases customer acquisition and retention. This research aims to explore the attitudes, experiences and needs of online gamblers with regards to consumer protection. Specifically, perceptions of responsible gambling and government and third party regulations will be examined as well as experiences of disputes with gambling operators. This research is important in an industry where a lack of trust and credibility creates commercial disadvantages as customers can easily transfer to competing gambling sites as it will provide insights into the variables associated with mistrust and dissatisfaction so that steps may be taken to avoid such concerns. This paper is relevant for researchers, gambling operators, regulators, and policy makers and the overarching objective of this paper is to advance knowledge on gambling behavior and enable the development of appropriate regulation to protect online gamblers.

Consumer Attitudes

Research indicates that key factors influencing Internet gambling include customer satisfaction, customer service, security and privacy, website reliability, and third party endorsement (Beldad, de Jong, & Steehouder, 2010; Gainsbury, Wood, Russell, Hing, & Blaszczynski, 2012; Guo, Xiao, & Tang, 2009; Kim et al., 2010; Jolley et al., 2006; McCole et al., 2010; Shergill & Chen, 2005; Shin, 2009; Woolley, 2001). Customer satisfaction is associated with business performance indicators including profitability, word-of-mouth, and return intentions (Kralj & Solnet, 2010). Dissatisfied complainants have been shown to have lower levels of trust and are more likely to engage in negative word-of-mouth behavior than customers who do not make complaints. Even successful resolution of complaints does not

bring customer satisfaction to pre-complaint failure levels (Kau & Loh, 2006). An Internet site's ability to create trust has long-term consequences on customer loyalty and retention (Johnson & Hult, 2008; Ramsey, Fang, Qureshi, & McClole, 2007; Reichheld & Schefter, 2000; Urban, Sultan, & Qualls, 1999). Dissatisfied customers may relate their experiences to10 or 20 other people (Zemke, 1999). This effect is dramatically amplified when complaints are made public in online forums actively visited by customers looking for site reviews.

Despite steadily high participation rates, community concern with gambling has increased with public awareness of the negative consequences associated with excessive gambling (Gainsbury & Wood, 2011; Pew Research Centre, 2006; Smith, Schopflocher, el-Guebaly, Casey, Hodgins, & Williams, 2011). Problem gambling is characterised by difficulties in limiting money and/or time spent on gambling, leading to adverse consequences for the gambler, others, or for the community, such as health and psychological disorders, family breakdown, employment disruptions, bankruptcy, or crime (National Research Council, 1999; Productivity Commission, 2010). Problem gamblers typically have irrational beliefs about gambling and their likelihood of winning and engage in irrational behaviours, such as chasing losses, that is, gambling further to try and win back losses (Hodgins, Stea, & Grant 2011). Understanding public attitudes towards gambling is essential in implementing appropriate policies and creating appropriate public education campaigns about the risks of gambling to prevent gambling-related problems (Toce-Gersein & Gerstain, 2007).

Responsible Gambling

The gaming industry and regulators who profit from taxation, have a responsibility to provide relevant information regarding the risks and hazards associated with the consumption of its products, and to take active steps at all levels to minimize consequent harm (consumer protection) (Monaghan & Blaszczynski, 2010). Harm minimisation strategies aim to minimise the risks associated with gambling and facilitate responsible gambling, without overtly disturbing those who gamble in a non-problematic manner (Productivity Commission, 2010). A public health perspective on harm minimisation suggests that strategies should target individuals, gambling products and the gambling environment (Korn & Shaffer, 1999). The majority of online gamblers appear to spend moderate amounts on this activity (Gainsbury, Sadeque, Mizerski, & Blaszczynski, in press; LaBrie Kaplan, LaPlante, Nelson, & Shaffer, 2008; Nelson et al., 2008; Wood &Williams, 2011). However, numerous studies suggest that Internet gambling poses unique risks to consumers that may lead to the development of, or exacerbation of gambling problems (Gainsbury, Russell, Hing, Wood, & Blaszczynski, 2012; Griffiths, Wardle, Orford, Sproston, & Erens, 2009; Petry & Winestock, 2007; Volberg, Nysee-Carris, & Gerstein, 2006; Wood & Williams, 2011). In recognition of the problems associated with gambling, governments and operators have introduced features and tools that aim to minimize gambling-related harms.

There is wide variation in the type and extent responsible gambling features (RGFs) used and many sites do not have effective responsible gambling policies in place nor do they promote RGFs (Griffiths, 2007; Jawad & Griffiths, 2008; Khazaal, Chatton, Bouvard, Khiari, Achab, & Zullino, 2011; Monaghan, 2009; Smeaton & Griffiths, 2004; Wood & Williams, 2007). RGFs for Internet gambling sites may include limits on the amounts that can be deposited or bet over a predetermined period, warning signs for prolonged play or high expenditure, the ability to take a self-assessment for gambling problems, information about gambling problems and probabilities of winning, self-exclusion from a gambling site, and clear display of current and past expenditure and outcomes of bets, An analysis of 74 popular poker sites found that fewer than half of the sites provided warnings related to the risk of problem gambling or information on the legal context of

online gambling, and less than a quarter provided time or spending limits (Khazaal et al., 2011). The provision of RGFs is also related to jurisdictional requirements, for example, deposit limits must be provided in the UK, Gibraltar, Denmark, Spain and Germany, but are voluntary for Australian online gambling operators. Reports suggest that when RGFs are provided voluntarily without promotion, these are used by only a minority of customers. For example in Australia, only 1,600 out of 200,000 active customers (0.8%) used the deposit limit tool available on *Sportsbet* and 900 self-excluding from the site (0.45%). *Betfair Australia* reported a higher rate, with roughly 12,000 customers out of 200,000 (6%) utilising deposit loss limits and self-exclusion (Parliamentary Joint Select Committee on Gambling Reform, 2011). In contrast, in the first six weeks of operation, betting operator *Bet365*, reported that 17% of Australian customers had set deposit limits, which actively promoted during the sign-up process (Moss, personal communication, 2012).

The failure to provide RGFs, such as deposit limits, for players may negatively impact business in addition to lacking corporate social responsibility. Reports from a self-selected sample of online poker players from Sweden indicate that RGFs increase consumer trust by demonstrating corporate integrity and reducing player's anxiety about winning from other players (Wood & Griffiths, 2008). This is consistent with evidence indicating that regular gamblers are supportive of the introduction of RGFs and report that these might be useful (Ladouceur, Blaszczynski, & LaLande, 2012; Nisbet, 2005; Parke, Rigbye, & Parke, 2008; Schellinck & Schrans, 2007). This study will examine Internet gambler's attitudes towards the provision of RGFs to determine the impact of these features on consumer behavior.

Regulation

The rapid growth of Internet gambling has outpaced many of the laws that were created to regulate gambling activities (Gainsbury, 2010; Gainsbury & Wood, 2011). There is currently a situation of inter-jurisdictional inconsistency with a mix of prohibition targeting sites, players or financial transactions, partial legalization and regulation, and open markets with some or no restrictions. This situation has resulted in many legal disputes between jurisdictions, for example, in the European Union over free-trade agreements and marketing policies. Despite wide variations in Internet gambling regulation, consumers appear to have relatively low levels of concern regarding the legality of sites or the jurisdiction in which they are based. A survey of 12,521 gamblers from over 96 countries found that only 6% of Internet gamblers choose a particular online gambling site due to its legality and 3% were influenced by the jurisdiction a site operated out of (Wood & Williams, 2010). The apparent lack of concern about regulations may reflect player confusion or misunderstanding of gambling regulations; for example, a survey of gamblers in the US found that fewer than 20% of respondents correctly reported that online gambling was illegal (American Gaming Association, 2006). These findings are contrary to research indicating that Internet gamblers consider information presented on a website about the corporation, legal status and fairness of odds as the most important factor in judging the trustworthiness of a site (Shelat & Egger, 2002). The lack of clear understanding of the extent of consumer awareness of the regulation and legality of Internet gambling worldwide suggests that further research on consumer understanding and perception of the regulation of Internet gambling would be useful to enable the development of strategies to increase consumer awareness of these issues.

Given the lack of strong regulation of Internet gambling in many jurisdictions, several independent third party organizations have been created with the aim of identifying sites that meet criteria ensuring customer protection, corporate integrity, and responsible gambling practices. One example is eCOGRA (e-Commerce and Online Gaming Regulation and Assurance), which issues a seal of approval to reputable online gambling software suppliers and operators that meet rigorous standards. Examples of required criteria include links to

problem gambling assistance, diagnostic questionnaires, identification of risky patterns of play and financial transactions, self-exclusion, and limit setting options.

Third party seals of approval have been shown to increase online purchasing, vendor trust, and favorable consumer perceptions regarding privacy policies for ecommerce sites (McCole et al., 2010; Miyazaki & Krishnamurthy, 2002). However, similar to responses from Internet gamblers regarding awareness of regulatory policies, contrasting research shows that there is generally low awareness of seals-of-approval, that these are inconsistently used by sites, and may not have a strong influence on online purchasing behavior (Head & Hassanein, 2002; Miyazaki & Krishnamurthy, 2002). The effectiveness of Internet seals of approval are dependent on both site compliance with the standards set and customer's trust in the credibility of a seal from a particular third-party organization (Miyazaki & Krishnamurthy, 2002). These mixed findings indicate that the extent to which third-party organizations and seals of approval are recognized and impact consumer attitudes and behaviors requires further investigation.

Consumer Protection

Customer satisfaction with online experiences and perceived security is a critical issue in increasing the acceptance and use of sites and services involving electronic monetary transactions (Meuter et al., 2003). Research has demonstrated that security concerns, trust in payment systems, and operator legitimacy are primary reasons for not gambling online (Ipos Reid, 2005; Woodruff & Gregory, 2005). Internet gamblers have significant concerns related to fair play practices and cheating (Gainsbury et al., 2012; Wood & Griffiths, 2008; Wood & Williams, 2010). A study by the American Gaming Association (2006) found that 55% of a sample of online gamblers believed that online casinos cheat players and 46% believed that players cheat. A UK study found that consumers feel gambling sites fail to provide appropriate levels of customer support and that upwards of 92% of gambling sites fail to provide sufficient information and contacts details (Real Wire, 2008). Similarly, a large-scale survey of over 12,000 gamblers found that over a third of Internet gamblers identified the main disadvantage of this mode of gambling as the difficulty in verifying the fairness of games and over one-quarter reported concerns about their monetary deposits being safe (Wood & Williams, 2010).

Concerns regarding fair play practices are reasonable as there are numerous examples of online gambling sites not paying winnings, cheating players with unfair games, or stealing deposits and personal details (Gainsbury, 2012; McMullan & Rege, 2010). The Australian Productivity Commission gambling inquiry (2010) concluded that increased legalization and regulation of online gambling would be more effective than prohibition to protect residents from harm as this would result in increased consumer choice and higher standards for sites that would have to compete for customers. One of the consequences of prohibition is that individuals are forced to play on unregulated sites that may not provide adequate consumer protections and security measures. Customers often have little to no measure of recourse if they have a complaint or dispute with a site that is based outside their jurisdiction. (Gainsbury & Wood, 2011).

Several studies have found that customers with greater levels of gambling involvement are more likely to have disputes with operators and disordered behavior and, correspondingly, are also more likely to experience gambling-related problems (Allcock, 2002; Häfeli & Schneider, 2005; Schellink & Schrans, 2004). Similarly, online gamblers who self-excluded from an Internet gambling site were found to be significantly more likely to make complaints and report disputes than other customers (Häfeli, Lischer & Schwarz, 2011). This may indicate that customer disputes may not always be the fault of the operator, but a consequence of negative attitudes towards gambling sites or unrealistic expectations, such as customers feeling that they bet more than they could afford to lose. Reported disputes and security breaches are damaging to the reputation of specific sites and to the entire industry as they are likely to reduce consumer confidence and

reduce use of online gambling (McMullan, 2012). Operators and regulators may benefit from taking steps to increase customer protection and consumer trust and resolve disputes as far as possible to enable growth of the online gambling industry. This research will investigate online gambler's experience with disputes and the factors related to customer complaints.

Internet Casino and Poker Players

Casino and poker sites follow wagering to represent the second (26%) and third (14%) largest segments of the global online gambling market (Holliday, 2010). Internet gambling research has typically considered online gamblers as a homogenous group (Griffiths et al, 2009; Olason et al., 2011; Wood & Williams, 2011). However, differences in demographic and psychological dimensions have been found between Internet gamblers based on their preferred gambling activity and level of problem gambling severity (Gainsbury, Russell et al., 2012; Ledgerwood & Petry, 2006; Lloyd et al., 2010; Petry, 2003; Shead, Hodgins, & Scharf, 2008; Wardle, Moody, Griffiths, Orford, & Volberg, 2011). For example, a study of 513 Canadian university students found that poker players were more likely to be male, younger, have higher levels of alcohol abuse and gambled more often and for longer periods than non-poker players,(Shead, Hodgins, & Scharf, 2008). Given the significant difference between Internet casino games and poker in terms of their structure (speed of play, role of skill, prize structure), individual analysis of Internet gamblers based on their use of each game may be insightful and warranted.

Current Study

The current study aimed to build on research from gambling and ecommerce fields to investigate consumer attitudes towards responsible gambling policies, regulation, and consumer protection measures. The research questions investigated included determining the factors related to consumer attitudes towards the provision of RGFs, regulation of online gambling, and consumer protection measures. A secondary question was whether online casino players hold different attitudes to online poker players. The strategies consumers use to choose Internet gambling sites were explored as well as their experience with disputes with operators. The results will enable recommendations to be made for operators and regulators to guide appropriate consumer policy, customer responses, and regulation of online gambling sites.

METHOD

Participants

A total of 10,838 participants from 96 different countries took part in the study. This sample included 7,342 Internet casino players (45.2 % males and 54.8% females) with more than three-quarters of participants aged over 35 years. There were 5,461 poker players who participated (74.5% males and 25.5% females) with around 60% aged over 35 years. These samples are not mutually exclusive as 2,723 participants reported playing at both Internet casino and Internet poker sites in the preceding three months. The vast majority of participants resided in North America or the United Kingdom (USA 68.1% and 55.3%; Canada 7.8% and 9.1%; and the U.K. 5.9% and 13.2% for Internet casino and poker players respectively).

Procedure

Over 100 online gambling sites, reputable portals (i.e., information and news sites) and the media were used to advertise and provided a link to an online survey to Internet gamblers in over 100 different countries. To be eligible for participation, individuals had to have gambled at Internet casino sites and/or Internet poker sites within the last three months. This requirement was made clear in any text promoting the survey and on the survey's information page. Participating Internet

gambling operators sent an email to active customers in their database informing them of the study and providing a link to the survey. Affiliate sites and portals placed the link and the accompanying explanatory information on the sites between August and December 2006.

Participants were not offered any incentives or asked to provide identifying information. All participants gave informed consent for the data to be used in research by clicking a consent statement that they were required to read at the start of the survey. A cookie was used to ensure that only one response could be given per ISP address. Participants were informed that all questions were optional and subsequently not all respondents answered each question. The research was granted ethical approval from a University Ethics Committee.

Measures

The questionnaire included 85 items including closed and open-ended questions organized into the following sections:

a) *Socio-demographic*: Questions to assess age, gender, occupation, country of residence;

b) *Playing behavior:* Questions about Internet gambling behavior including types of online gambling, time and place of play, likelihood of trying to win back money previously lost (chasing behavior), and use of forums and online message boards for relevant information on Internet gambling;

c) *Online casino use*: Specific questions about use of online casinos including frequency of play, number of sites used, initiation of online casino play, duration of session, wagering behavior, level of experience and/or skill, and motivation for playing;

d) *Online poker use*: Specific questions about use of online casinos including frequency of play, number of sites used, initiation of online poker play, duration of session, wagering behavior, level of experience and/or skill, and motivation for playing;

e) *Player satisfaction & awareness*: Questions about awareness, understanding and impact of third-party seals of approval, experience of disputes and problems and dispute resolution with online gambling operators, and perceptions of the effectiveness of regulation of online gambling, and what aspects of regulation could be improved. Participants were also asked three questions (e.g., 'Online gambling sites have an on/off switch that can turn the software in favour of the operator') about the fairness of online gambling sites with five response options ranging from 'strongly disagree' to 'strongly agree' and including 'don't know'.

f) *Responsible gambling*: Questions to determine participant attitudes including perceived usefulness of various responsible gaming tools and views for improving responsible gambling provision on the Internet.

As the sample was self-selected, caution must be used when interpreting the findings which may not be wholly representative of Internet casino and poker players.

Statistical Analyses

The association between country of residence and level of endorsement of RGFs was analyzed using 2 x 2 Chi-square cells were country of residence vs. all other countries by at least quite useful vs. 'not very useful\not at all useful'. Given that the US represented more than half of all respondents they were excluded from 'all other countries' comparisons. Analyses were also conducted for the number of sites on which participants have gambled within the preceding three months. The relevance of these figures for this investigation is the general concern regarding the ease with which players may move to another site to continue play once they reach limits set with one particular operator. In addition to the presentation of descriptive and basic inferential statistics for this study, predictive models were estimated to explore variables related to (1) experiencing a dispute with an Internet gambling site and, (2) whether consumers perceived

that there is an 'on/off switch that can turn the software in favor of the operator'. Analyses were carried out separately for both Internet casino and Internet poker players. The rationale for having separate models for poker and casino players was that there is currently a paucity of information regarding the demographic and behavioral profile of Internet poker and Internet casino players as separate groups and such information could inform commercial, clinical and policy-related decision-making relating to consumer protection. Furthermore, poker and casino players responded to slightly different questions and therefore it was not possible to aggregate these groups. For the statistical analysis, probit estimation was employed because the independent variables were binary and this method of analysis detects participant characteristics that predict the variables of interest.

RESULTS

Participants

Participants reporting casino game play were most likely to: be female (54.8%); aged between 46-55 years (29.5%); play 2-3 times per week (37.0%); have visited more than six Internet casino sites in the preceding three months (25.0%); have played for 2-3 years (22.4%), on average play 1-2 hours per session (26.5%) and wager between $30-$60 per session (18.1%).

In the current sample, Internet poker players, based on modal class, were most likely to be male (73.8%); aged 26-35 (26.9%); play 2-3 times per week (26.8%); visit more than six poker sites in the preceding three months (25%); have played for 2-3 years (23.6%); play for between 1-2 hours per session (33.3%); and play at big blind levels (equivalent to minimum bets per hand of poker) of $0.50 to $2.00[i] (61.2%).

Participants generally indicated that they played with more than one gambling provider for their game of choice in the preceding 3 months with around 85% of Internet casino players playing across more than one site compared to 75% of Internet poker players. Internet poker players reported playing across fewer sites with around 30% of casino players playing on only 1-2 sites compared to around 50% of poker players. 'Playing on more than 6 sites' (the highest possible response category) was the modal class response., accounting for 1 out every 4 casino players compared to only 1 out of every 8 poker players.

Responsible Gambling

As summarized in Table 1, participants generally reported that they would find RGFs useful. Although no one feature stood out as critically important, 51% to 75% (across all five features) of participants stated that they would consider RGFs at least "quite useful". The most popular option was receiving regular financial statements, with 75.1% of respondents considering this option to be at least quite useful and the least popular feature was self-set time limit with 50.3% reporting this as at least quite useful.

Table 1 here

Participants were significantly more likely to report that a RGF was at least quite useful if they reported chasing losses, were under the age of 35 or were female. Those playing at Internet casinos (versus poker players) were also more likely to endorse RGFs with the exception of financial statements and self-assessment. These findings were significant at least at p . < 05 level using the Pearson chi-square statistic.

Among the participants, Internet poker players that played with lower stakes were more likely to report that spend limits would be at least quite useful (70.3% vs. 65.6%, X^2 (1) = 10.21, *p.* < .001). More skillful poker players (those 44.9% of the 5,004 respondents claiming that they were either 'quite good', 'very good' or 'extremely good') reported spending limits, time limits and self-exclusion all to be less useful than their less skillful counterparts (those 55.1%

of the respondents claiming to be of 'average skill' level or less). These findings were significant at least at p . < 05 level using the Pearson chi-square statistic.

Respondents in the US were less likely to rate any of the RGFs as at least quite useful compared to other countries. Participants from the UK were significantly more likely to rate RGFs as at least quite useful, with the exception of self-assessment tests. Canadian, Dutch and Danish respondents were less likely to endorse the usefulness of spend limits. Australian, Swedish, German, Norwegian, Irish and Italian residents were no different in responding compared to other respondents. Again, all findings were significant at least at p . < 05 level using the Pearson chi-square statistic.

Consumer Protection

More than one-third of participants (36.0%, n = 8952) reported having a dispute with an Internet gambling site, of which 49.3% reported that the dispute had been resolved. Dispute resolution appears to be higher among Internet casino gamblers, of whom 38.7% reporting having a dispute with 71.1% of these achieving resolutions, compared with 35.4% of Internet poker players reporting disputes with a 53.4% resolution rate. Tables 2a (Internet casino) and 3a (Internet poker) show the findings from *probit* equations detailing the impact of each independent variable on the likelihood of reporting disputes[ii].

Being resident in the U.S. or Canada was positively related to Internet casino gamblers ever experiencing a dispute. Participants choosing Internet casino sites based on security, reputation, and game software; playing more frequently; wagering more money per session; playing on a greater number of Internet casino sites within the preceding three months were all positively related to players reporting that they have had a dispute. Participating in slots as a mode of Internet gambling among casino players was negatively related to experiencing a dispute.

Among Internet poker players, U.S. and Canadian residents were also more likely to have reported experiencing disputes, with participants from Germany significantly less likely to report disputes. Age, chasing losses, playing on a greater number of poker sites, playing with a larger percentage of their bankroll, skill level and tournament play were all positive predictors of having a dispute. Poker players participating in Internet slots as a mode of gambling was positively related to experiencing a dispute, unlike Internet casino gamblers. Of note, monthly financial outcome was unrelated to either Internet casino or Internet poker customers experiencing disputes.

Table 2 here

Table 3 here

Table 4 summarizes the nature of problems experienced and how frequently these occurred. The most commonly reported problems were being disconnected (66.1% of participants reported experiencing this at least sometimes) and/or software malfunctions (53.2%). The least common problem was "not being paid at all" with 25.8% of participants ever experiencing this difficulty. Both Internet casino players and Internet poker players playing on multiple sites rather than only one site were more likely to report being disconnected; experiencing unhelpful staff; having their accounts being locked; not being paid promptly; not being paid at all; software malfunctions; not receiving bonuses due; getting spam and experiencing unfair software – all of these occurring at least sometimes. All findings were significant at least at p . < 05 level using the Pearson chi-square statistic.

Table 4 here

Participants were asked how they felt the customer service in the Internet gambling industry compares to service levels in other industries. The majority of participants (83.6%, n = 8822) felt that the service they received was the same as other industries' customer services

or better. There were small but significant associations between view of customer service and both gender and time of week for play, (X^2, df = 1, p < 0.01 = 14.52 and 12.37 respectively). Women (40.9% vs 36.9%) and weekend players (59.0% vs 55.2% of non-weekend players) were more likely to consider the customer service to be better than other industries.

Approximately half of all participants reported that they had confidence in the integrity of online gambling software. Half of all participants (49.5%, n = 8656) agreed or strongly agreed that online gambling software was fair. Slightly less than half of respondents (44.9%, n = 8593) agreed or strongly agreed that random number generators actually determine gambling outcomes randomly. However, when asked if "*online gambling sites have an on/off switch that can turn the software in favor of the operator*", 37.6% of respondents (n = 8647) either agreed or strongly agreed with this statement. Internet casino players (46.1%) were more likely to hold these suspicions compared to respondents playing Internet poker (28.7%), $X^2 = 642.8$, df = 1, p. < .00001. Tables 3b (Internet casino) and 4b (Internet poker) exhibit findings from *probit* equations detailing impacts of each independent variable on whether a participant believes that "*online gambling sites have an on/off switch that can turn the software in favor of the operator*".

Among Internet casino gamblers, participants from the Netherlands or New Zealand were less likely to believe that operators can manipulate the software. Among poker players, residing in the US, UK, Netherlands, Sweden, Norway, and New Zealand was negatively related to having such suspicions. For example, residence in Norway or New Zealand reduced the probability by 26.3% and 27.1% respectively. Internet casino and Internet poker players participating in online slots were significantly more likely to suspect such cheating (although in both cases it only affects probability by around 5-10%) as were those chasing losses, male participants and younger participants (but again no variable influencing probability by more than 6%). Finally, Internet casino gamblers that chose sites according to the software provider, those playing at a greater number of sites, and those playing more frequently were more likely to perceive that sites engage in such unscrupulous practices.

Among respondents who think that poker sites are unfair or that they cheat, the most common way to deal with this was to "play only on well known sites" (with 86.8% of respondents doing so at least sometimes) and to "watch out for unusual behavior" (also with 86.8% doing so at least sometimes). Participants also reported seeking out well known software providers (70.3%) and third party assurances (59.4%) at least sometimes as strategies to avoid being cheated. Participants were least likely to play on smaller sites to counter any potential problems with cheating with 67.9% reporting that they rarely or never do this.

There were small but significant associations between level of involvement and preferred safeguards. Poker players that played more frequently were more likely to report that they either play (often or always) on well-known sites 65.6% vs. 57.8%, X^2 (1) = 17.76, *p.* < . 001) or watch out for unusual behavior (64.1% vs. 52.6%, X^2 (1) = 37.87, *p.* < .001) in order to minimize chances of falling victim to cheating. This finding also extended to those playing at higher stakes. Those playing less frequently were more likely to seek third party assurances in this context (37.6% vs. 32.8%, X^2 (1) = 6.95, *p.* < .01). There was no association observed regarding other safeguards and such aspects of involvement.

Regulation

The most frequent response (49.3% of 8904 responses) from participants regarding views on the current regulation of the Internet gambling industry was that they did not know; while 26.1% stated that it was either quite, or very well-regulated, and 24.6% felt that it was either

quite or very poorly regulated. When participants were asked about which aspects of industry regulations were in need of most improvement, there was no clear or obvious answer, as the majority of respondents stated that they thought that most aspects of regulation were in need of at least "some" improvement. However, as demonstrated in Table 5, there were also no clear areas where participants agreed that there was "a lot" of need for improvement.

Table 5 here

A large majority of respondents were in agreement that reputable independent third party reports on randomness and percentage payout (91.5% of 8236 respondents and 87.5% of 8199 respondents respectively) based on actual results were at least somewhat important to them. Of the two concerns, participants rated checks on randomness as most critical with 34.3% of responses within the "extremely important" category compared to only 24.2% regarding checking rates of payout.

DISCUSSION

RGFs were generally viewed as quite useful by the online gamblers in the study, although no single feature was predominantly endorsed. Participants were more likely to endorse the less restrictive RGFs, such as receiving regular financial statements and accessing self-assessment tests, although self-selected limits and self-exclusion were perceived as useful by a substantial proportion of respondents. Problem gambling was not measured in this survey; however, chasing behavior was measured (i.e., the likelihood that an individual would keep gambling to try and win back money lost), which can be used as an indicator of potential gambling-related problems (Carragher & McWilliams, 2011). The current study found that players who chased their losses were more likely to report RGFs as at least quite useful indicating that RGFs may be valuable for those who have the most need for them. Similarly, younger adults (below the age of 35) were more likely to endorse RGFs, which is a positive finding given numerous studies show younger adults are more likely to have significant gambling-related problems than any other age cohorts (Dickerson, Derevensky, & Gupta, 2004; Productivity Commission, 2010; Welte, Barnes, Wieczorek, Tidwell, & Parker, 2001).

The perceived usefulness of RGFs appears to be somewhat dependent on the type of Internet gambling and involvement in online play. Participants who played online casino games were more likely to endorse RGFs than online poker players. This finding was enhanced for skilled poker players who reported that limits and self-exclusion would be less useful than average and unskilled poker players. These responses reflect the differences in game play between the various forms of online gambling. Casino games are often continuous and unskilled, and players may lose track of time and money spent increasing the usefulness of external assistance provided by RGFs. Conversely, poker involves a high element of skill and skilled poker players are also less likely to view RGFs as useful as they are better able to control their play and stay within their limits without assistance than other poker players (Bjerg, 2010; Dedonno & Detterman, 2008; Griffiths et al., 2009; Parke, Griffiths, & Parke, 2005). The endorsement of RGFs by less skilled poker players is appropriate as these players are less likely to exhibit the control that highly skilled players have over their expenditure, and subsequently are more likely to need gain benefits from RGFs.

Results revealed relatively high levels of disputes reported by online gamblers that responded to the survey. More than a third of participants reported having a dispute with an Internet gambling site and just under half of these were resolved. Reported disputes may indicate genuine dissatisfaction with a site or service received. However, customers may also report disputes in an attempt to cheat an online gambling site, or for unwarranted reasons, such as losing more than they can afford. All disputes cause difficulties for a responsible online gambling operator due to the resources involved with investigating claims and potential negative publicity. In the case of a genuine dispute, an operator may be able to

apologize and rectify any error, however, customer dissatisfaction is difficult to completely resolve and the impacts may extend beyond the affected player (Kau & Loh, 2006). It is important to be mindful that these disputes were reported in 2006 and the industry and player perceptions have changed in subsequent years. From a regulatory perspective the significant number of unresolved customer disputes is troubling as it indicates that online gamblers may be willingly playing on disreputable sites and exposing themselves to financial and personal risk.

The online gamblers responding to this survey had high levels of concerns and a lack of trust in online gambling sites and operators. Only a minority of participants agree that games are fair and Internet gambling software has integrity and a substantial proportion of respondents believe that there is an 'on/off' switch that can be used to cheat customers. This finding is consistent with reports from a survey of online gamblers in the U.S. (American Gaming Association, 2006; Johnson & Hult, 2008; McCole et al., 2010; Ramsey et al., 2007; Reichheld & Schefter, 2000; Shergill & Chen, 2005; Urban et al., 1999; Woodruff & Gregory, 2005), suggesting relatively widespread mistrust amongst consumers. This may account for the high levels of disputes, which may be in part driven by suspicions and concerns rather than actual cases of fraud. Mistrust may be justified in certain circumstances although the general lack of understanding of regulations may heighten concerns.

Given that the most common problems were technical in nature (being disconnected and having software failure), this suggests that customers were dissatisfied with their experience as opposed to feeling they have been cheated. Despite reported difficulties experienced, participants generally viewed the customer care on Internet gambling sites to be similar to other industries. As the Internet gambling market has matured and developed increasingly strict codes of conduct and regulations have been implemented in an effort to ensure customers are protected and sites offer fair play, privacy and secure monetary transactions. Consumer confidence and trust in a site is vital to success in terms of customer acquisition, loyalty and retention (Beldad et al., 2010; Johnson & Hult, 2008; Ramsey et al., 2007; Reichheld & Schefter, 2000; Urban et al., 1999) and the current results suggest mistrust and general dissatisfaction may be limiting the number of potential customers to online gambling sites.

Significantly higher rates of disputes were reported by online casino and poker players participating in this study from the U.S. and Canada, both countries that had policies of prohibition of online casino and poker when this survey was undertaken. These results may be indicative of cultural norms that make complaints more likely, or that online gamblers are forced to play on sites regulated by foreign jurisdictions that have fewer consumer protection policies and subsequently expose themselves to risks of cheating and fraud.

Participants with greater levels of online gambling involvement (i.e., higher stakes, more frequent play, use of more sites) were more likely to report having a dispute, which is consistent with previous research (Allcock, 2002; Häfeli et al, 2011; Häfeli & Schneider, 2005; Schellink & Schrans, 2004). Highly involved players may be more likely to experience problems due to the increased volume of transactions and subsequent opportunities for an incident to occur. However, more experienced and involved players would also be expected to be more adept in selecting sites that have solid reputations and offer greater customer protection and security, which is confirmed by the results, suggesting that other factors may be involved. Players with high levels of gambling involvement may be more likely to have disputes with operators due to the mediating factor of gambling problems (Häfeli et al., 2011). This is an important area for further investigation as it has significant implications for how online gambling operators should respond to customer disputes.

Results confirmed that the online gamblers in this sample had a poor understanding of Internet gambling regulations, which is consistent with previous research (American Gaming Association, 2006). Online gambling regulation is frequently debated and modified to keep pace with developments in the industry (Gainsbury & Wood, 2011), which may cause confusion among players. A substantial proportion of stated significant improvements were required to regulations, although changes have occurred since 2006, which may have alleviated some concerns. Ongoing policy development is required to keep pace with gambling operators, other jurisdictions and ensure consumers are adequately protected.

Although respondents were not all happy with government regulation of online gambling, independent third party regulation does not appear to be a suitable replacement to minimize the chances of cheating and unfair practices. Participants reported that they played on well-known sites and were vigilant for unusual behavior in an effort to avoid falling victim to deception. Participants who gambled online less frequently were more likely to seek third party assurances than those heavily involved suggesting that these seals of approval do play a role in influencing consumer perceptions of a site. Overall, the majority of participants agreed that reputable third party reports on randomness and percentage payouts were at least somewhat important, indicating a clear role for third party certification in impacting attitudes towards online gambling sites. These results are consistent with previous research on consumer trust showing mixed perceptions for the use of Internet seals of approval (Miyazaki & Krishnamurthy, 2002).

This study has some limitations, which may reduce the external validity of the findings reported. Firstly, this sample was based on self-selection so the responses may not be representative of all online gamblers. It does not account for the perspectives of Internet gamblers other than casino and poker players. For example, disputes may be less likely among sports bettors as the determination of wagering outcomes is more tangible. Poker and casino players were categorized based on their participation in either form of online gambling, however, there was overlap amongst players, which was not accounted for. The data was collected in 2006 and as Internet gambling changes rapidly participation rates, sites and games offered and regulations have changed since the survey was conducted. Importantly several initiatives have been developed in the interim which will likely have had a positive impact on such components of consumer experience. Stakeholders including charities, standards authorities, trade bodies and operators have developed comprehensive codes of practice encouraging sites to adopt various player protection and responsible gambling strategies.

Nonetheless, there are numerous strengths to the current research that make it a valuable contribution to the field. These include the large sample size of participants from a wide variety of countries recruited from wide-ranging and numerous platforms. The sample size is important given that gamblers in particular are a hard-to-reach population (see Parke & Griffiths, 2002) with a particular case being made regarding Internet gamblers given that identification and access is difficult, and at best inefficient, without the direct assistance of Internet gambling websites. To the best of the authors' knowledge, the findings in this survey represent the single largest collection of consumer attitudes on Internet gambling to date. The dynamic nature of online gambling mean that virtually any studies conducted will be somewhat outdated by the time they are published, but this does not necessarily limit the importance of the results for gambling operators, policy makers and regulators and researchers or the extent to which they can be used to drive policy and future research.

CONCLUSIONS AND RECOMMENDATIONS

Given the generally favorable attitudes reported towards RGFs, the provision of these may encourage online gamblers to use safer sites, particularly if these are offered in a flexible

manner so that they can be modified to suit individual customers. Policy makers and regulators are likely to increasingly demand the provision of various RGFs in recognition of the potential risks associated with Internet gambling and community concern (Gainsbury &Wood, 2011). Internet gambling offers an environment in which gambling-related harms may be reduced. Use of a centralized player account to gamble enables responses to individual players to be tailored based on their apparent level of risk and deviation from typical patterns of play (Gainsbury, 2011). Risky gambling may be detected by operators and players can be directed to appropriate RGFs including limit setting and self-tests for gambling problems. Given that more involved players appear to report greater levels of mistrust and disputes with online operators, providing RGFs may increase levels of satisfaction, particularly from players who have gambled beyond their means.

To be successful, regulated sites must compete with offshore sites and encourage players to use these sites, which include strong customer protection measures. Regulators should aim to minimise player disputes by clearly displaying customer policies and contact methods to solve customer queries before they escalate into complaints. Efforts to increase trust and minimize concerns amongst online gamblers may include increased transparency of games and policies and increasing customer awareness of appropriate methods to resolve difficulties. Regulators and policy makers may act to reduce disputes experienced by online gamblers by increasing public education of the risks associated with gambling on offshore sites, where players have few avenues of recourse to resolve disputes and sites may offer minimal consumer protection and responsible gambling. Additionally, where relevant, policy makers and operators should enhance public awareness of the importance of gambling only on regulated sites, which offer a safe playing environment and operators are subject to strict codes of conduct.

Policy makers should take continuous actions to ensure that consumer protection measures are sufficiently rigorous and appropriate, particularly as products offer evolve. Processes for resolving customer complaints should be efficient and immediate. Regular audits of gambling sites and operations should reduce disputes by ensuring sites are operated fairly with integrity. Customer satisfaction may be enhanced by more effective marketing of the role of third parties in certifying consumer protection and responsible gambling strategies offered by sites. Ongoing evaluations are necessary to ensuring that the standards claimed are upheld to ensure the trustworthiness of seals. Self- and third party regulations are very important in the online gambling industry as it lacks appropriate regulation in many jurisdictions and players can access offshore sites relatively easily. Further research examining the perception of Internet seals of approval for gambling sites will provide further insight into their effectiveness in reducing risk and disputes.

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Feature	N	Not at all Useful	Not very useful	Quite useful	Very useful	Extremely useful
Self-set spending limits	8587	11.2	18.4	**40.1**	18.1	12.2
Self-set time limits	8463	18.9	30.9	**32.0**	11.7	6.6
Self-exclusion	8200	16.4	26.2	**34.8**	12.7	9.9
Regular financial statements	8391	9.1	15.7	**42.0**	20.2	12.9
Self-assessment test	8272	14.3	23.3	**38.2**	15.4	8.8

Note: Bold figures denote most frequent category.

Table 1. Percentage of Players According to Perceived Usefulness of RGFs

	A. Probit (dependent variable is probability of had a dispute with a site)			B. Probit (dependent variable is probability of belief "*online gambling sites have an on/off switch that can turn the software in favor of the operator*")		
	dy/dx	z-value	P-value	dy/dx	z-value	P-value
Demographic Variables						
Gender	-0.049	-3.00	0.003**	-0.063	-3.37	0.001**
Age	0.008	1.23	0.218	-0.019	-2.59	0.01*
United States	0.070	2.60	0.009**	-0.036	-1.16	0.245
Australia	0.028	0.46	0.647	0.010	0.16	0.876
Canada	0.092	2.49	0.013*	-0.033	-0.82	0.410
China	-0.057	-0.35	0.726	-0.121	-0.58	0.563
United Kingdom	0.042	1.05	0.295	-0.056	-1.28	0.202
Germany	-0.103	-1.05	0.293	-0.081	-0.73	0.466
Italy	0.066	0.71	0.478	-0.008	-0.07	0.943
Japan	-0.057	-0.34	0.737	-0.147	-0.87	0.382
The Netherlands	-0.042	-0.49	0.627	-0.228	-2.68	0.007**
Norway	-0.094	-1.11	0.265	0.020	0.21	0.835
Sweden	0.047	0.58	0.564	-0.057	-0.61	0.540
Denmark	0.044	0.50	0.616	-0.039	-0.41	0.681
Rep Ireland	0.054	0.29	0.771	0.132	0.74	0.459
New Zealand	0.140	1.24	0.213	-0.282	-2.81	0.005**
Gambling Mode						
Slot	-0.073	-3.16	0.002**	0.050	1.95	0.05*
Betting	0.014	0.50	0.619	-0.040	-1.26	0.208
Poker	0.022	1.25	0.213	-0.032	-1.61	0.106
Blackjack	-0.004	-0.22	0.827	-0.028	-1.32	0.185
Roulette	-0.024	-0.91	0.361	-0.026	-0.90	0.365
Lottery	0.011	0.44	0.657	0.001	0.04	0.967
Bingo	-0.027	-1.35	0.176	0.002	0.07	0.941
Site Features						
Software initial determined	0.037	2.21	0.027*	0.040	2.12	0.034*
Welcome bonus	-0.015	-0.70	0.487	-0.014	-0.58	0.565
Info on fair play	0.024	1.33	0.183	-0.031	-1.55	0.122
Bonuses	-0.005	-0.33	0.738	-0.007	-0.37	0.713
Security	0.041	2.27	0.023*	-0.024	-1.17	0.242
Game variety	-0.015	-1.03	0.304	0.019	1.14	0.253
Reputation	0.061	3.96	0.000**	-0.022	-1.29	0.197
Software provider	-0.035	-0.93	0.352	-0.009	-0.21	0.831
Deposit	-0.008	-0.39	0.693	-0.012	-0.54	0.588
Prompt payments	-0.007	-0.46	0.647	-0.015	-0.90	0.371
Player Behavior						
Chasing	0.016	1.06	0.287	0.039	2.28	0.023*
Financial outcome	0.002	1.35	0.176	0.001	0.93	0.353
Amount wagered	0.014	3.75	0.000**	0.004	0.92	0.359
Frequency	0.019	3.72	0.000**	0.013	2.40	0.017*
No. Casinos	0.034	9.06	0.000**	0.013	3.08	0.002**
Session length	-0.001	-0.11	0.913	0.003	0.55	0.581
Sample size			*4943*			*3828*

** And ** denotes significance at the 0.05 and 0.01 levels respectively*

Table 2. Probit Regression Results Related to Fair Play (Internet casino gamblers)

	A. Probit (dependent variable is probability of had a dispute with a site)			B. Probit (dependent variable is probability of belief "*online gambling sites have an on/off switch that can turn the software in favor of the operator*")		
	dy/dx	z-value	P-value	dy/dx	z-value	P-value
Demographic Variables						
Gender	-0.019	-0.92	0.360	-0.056	-2.37	0.018*
Age	0.025	3.81	0.000**	-0.021	-2.93	0.003**
United States	0.059	2.22	0.026*	-0.062	-2.13	0.033*
Australia	-0.007	-0.12	0.903	0.022	0.38	0.704
Canada	0.084	2.33	0.02*	-0.003	-0.07	0.947
China	0.103	0.69	0.488	-0.032	-0.16	0.871
UK	0.002	0.06	0.952	-0.122	-3.63	0.000**
Germany	-0.160	-2.57	0.01*	-0.092	-1.28	0.201
Italy	-0.004	-0.03	0.973	-0.061	-0.39	0.700
Japan	0.116	0.34	0.732	-0.164	-0.51	0.610
The Netherland	-0.067	-0.86	0.390	-0.157	-2.10	0.036*
Norway	-0.006	-0.07	0.946	-0.268	-3.51	0.000**
Sweden	0.044	0.66	0.509	-0.152	-2.38	0.018*
Denmark	-0.001	-0.02	0.982	-0.096	-1.48	0.140
Rep Ireland	0.005	0.05	0.960	-0.112	-1.02	0.309
New Zealand	0.115	0.87	0.384	-0.272	-2.76	0.006**
Gambling Mode						
Slots	0.082	3.82	0.000**	0.122	5.10	0.000**
Betting	0.034	1.39	0.165	0.002	0.06	0.953
VidPoker	-0.067	-2.67	0.008**	-0.036	-1.26	0.208
Black	0.035	1.63	0.104	0.010	0.42	0.678
Roulette	0.010	0.29	0.772	-0.012	-0.30	0.764
Lottery	0.006	0.21	0.834	-0.020	-0.58	0.563
Bingo	-0.050	-1.84	0.066	0.050	1.48	0.138
Site Features						
Rakeback	0.026	0.98	0.328	-0.015	-0.52	0.600
Sign-up bonus	0.014	0.66	0.509	0.022	0.92	0.355
Monthly Bonus	0.024	1.16	0.247	-0.009	-0.40	0.691
Player Behavior						
Frequency	-0.011	-1.90	0.058	-0.009	-1.44	0.150
Session Length	0.019	2.97	0.003**	-0.004	-0.48	0.628
No. Sites	0.037	8.26	0.000**	0.007	1.33	0.182
Blinds	0.009	2.20	0.028*	0.001	0.30	0.765
No. tables	0.011	1.35	0.176	0.009	0.91	0.361
Bankroll	0.012	2.53	0.011*	0.001	0.20	0.843
Financial outcome	-0.002	-0.95	0.341	-0.001	-0.26	0.797
Chase	0.043	2.20	0.028*	0.053	2.41	0.016*
Cash player	-0.033	-1.64	0.100	0.010	0.46	0.645
Tournament player	0.040	2.10	0.036*	0.067	3.22	0.001**
Skill level	0.038	4.00	0.000**	0.001	0.06	0.951
Sample size		4033				3543

** And ** denotes significance at the 0.05 and 0.01 levels respectively*

Table 3. Probit Regression Results Related to Fair Play (Internet poker players)

Problem	N	Never	Rarely	Sometimes	Often	Always
Being disconnected	8727	9.6	24.3	**46.7**	16.8	2.6
Unfriendly/unhelpful staff	8547	**45.7**	21.9	23.5	7.3	1.6
Account being locked	8517	**54.5**	19.7	20.1	4.5	1.2
Not being paid promptly	8506	**40.9**	17.9	25.7	10.9	4.6
Not being paid at all	8424	**74.2**	13.0	9.7	2.2	0.9
Software malfunction	8598	18.7	28.0	**40.2**	11.2	1.8
Not receiving bonuses	8557	**43.7**	19.1	25.4	9.7	2.1
Spam	8391	**41.1**	21.2	21.5	11.0	5.2
Unfair software	8330	**50.5**	19.9	20.4	6.9	2.4

Note: Bold figures denote most frequent category.

Table 4. Percentage of Players According to Problems Experienced

	N	No Need for Improvement	Some need for improvement	A lot of need for improvement
Clarity of regulations	8004	26.1	**54.8**	19.0
Transparency among operators	7778	24.9	**54.1**	21.0
Government regulation	7857	**40.7**	37.5	21.9
Uniformity of Code of Conduct	7759	23.8	**50.9**	25.2
Responsible gambling features (e.g. self-exclusion, responsible gambling information)	7842	36.5	**48.4**	15.1
Operator responsiveness to player complaints	7973	26.9	**49.2**	24.0
Number of gambling sites submitting themselves to effective self-regulation, e.g. eCOGRA	7678	21.3	**54.6**	24.1

Note: Bold figures denote most frequent category.

Table 5. Percentage of Players According to Perceived Need for Improvement in Regulation

[i] The maximum amount of funds players are able to bring to the virtual poker table varies but is normally between 50 times the big blind to 200 times the big blind.

[ii] The *Probit* models used here for modeling in all four cases are a form of non-linear equation, and for this reason, it is important to also calculate marginal effects. The marginal effects, presented as 'dx/dy' in our modeling results tables (see Tables 2-3), demonstrate the predicted probability of the dependent variable resulting from a one-unit change (or in terms of categorical variables, a category change) in the independent variable. For example, if the marginal effect of age is 0.009, this implies that increase in age by one unit (in this case increasing by one category) on average increases the probability of disputing with a site by approximately one percent. Respectively, if the marginal effect of gender is -0.048. This implies that being female decreases the probability of disputing with a site by about 5 percent. The independent variables used in the equations are slightly different (reflecting the different questions asked in the survey) for estimations relating to Internet casino and Internet poker players.