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Factors Influencing Internet Gamblers' Use of Offshore Online Gambling Sites: Policy Implications

Sally Melissa Gainsbury [sally.gainsbury@sydney.edu.au], University of Sydney - Psychology, Brain and Mind Centre 94 Mallet St, New South Wales, Camperdown, New South Wales 2050, Australia

Brett Abarbanel, University of Nevada Las Vegas - International Gaming Institute, Las Vegas, Nevada, United States. University of California, Los Angeles - UCLA Gambling Studies Program

Alex Blaszczynski, University of Sydney - Psychology, Brain and Mind Centre, Camperdown, New South Wales, Australia

Abstract

Gambling is a heavily regulated activity, but policies are difficult to enforce in the online context. While governments may attempt to restrict access to licensed providers only, consumers can access offshore sites, creating a potential risk of harm and reducing taxation. This article examines how consumers select Internet gambling sites, and the characteristics of those who use offshore as opposed to domestic sites. Past-month Australian Internet-gamblers (N = 1001, 57.2 percent male) completed an online survey. Participants responded to questions about their online gambling, including use of offshore sites, reasons for site selection, awareness of regulations, preferences for regulated sites, and gambling-related problems. Offshore gamblers (52.7 percent) were a distinct demographic cohort, and were more highly involved in online gambling. Lack of awareness of gambling regulation did not sufficiently explain use of offshore gambling sites; rather, both groups had a relatively low concern for where a site was regulated, choosing sites instead based on ease of use, and cues that they were designed for gamblers in the advertised jurisdiction. Use of offshore gambling sites may be discouraged by focusing on the benefits of domestic sites and ensuring that these can provide a good consumer experience.

KEY WORDS: gambling, Internet gambling, offshore sites, regulation, consumer preference, online site selection, advertising, gaming

Introduction

Many international jurisdictions have introduced legislation to legalize and limit provisions for Internet gambling (Kingma, 2008). This has occurred largely in recognition of the sustained popularity of this mode of gambling and the inherent

limitations of prohibition (Laffey et al., 2016). Internet gambling policies range from open licensing systems, such as in the United Kingdom, licenses for specified products only, such as wagering and lottery in Australia, to monopolies often operated by state-affiliated gambling companies, such as in Norway, or prohibition, as in much of the United States. One argument made by governments to support restrictions on the provision of Internet gambling is that this activity poses a considerable risk of harm, and only licensed operators can be trusted to provide appropriate harm-minimization resources to protect consumers (Gainsbury and Wood, 2011; Gainsbury et al., 2014; Kingma, 2008). Other concerns associated with unregulated offshore sites facing governments are that they fail to contribute to the local economy through taxation, product/license fees, or other relevant levies; and that it is difficult to monitor anti-money laundering practices and other financial transaction requirements (Laffey et al., 2016). Understanding consumer motivation and behavior may be useful in developing strategies to deter and restrict use of offshore gambling sites. This article compares past-month online gamblers who used offshore vs domestically licensed sites, to determine if they represent different cohorts and to understand the motivation for consumers in selecting Internet gambling sites.

Internet Gambling and Public Health Policy

There is little harmonization in regulatory approaches towards Internet gambling across jurisdictions, even between jurisdictions with well-established commercial relationships (Kingma, 2008; Littler, 2007). For example, although preferring a single and open market approach, the European Parliament passed a resolution stating that member states have the right to regulate against the dangers of gambling and to protect the funding source for social causes that is generated through taxation of locally licensed gambling operators (European Parliament, 2009). There is some evidence that Internet gambling causes unique gambling problems, particularly for younger gamblers, and that this mode of access enables high gambling intensity (Gainsbury et al., 2015b). Subsequently, many gambling regulators have sought to limit access to Internet gambling sites. Attempts made by gambling regulators to deter consumers from accessing offshore gambling sites include publishing and maintaining blacklists of sites that must be blocked by IP providers, restricting transfer of funds to offshore sites, educating consumers of the dangers of these sites, limiting advertising, and threats of fines and sanctions against operators of offshore gambling sites. There is relatively limited evidence to support the effectiveness of these measures (Costes et al., 2016; Gainsbury et al., 2017; Gainsbury and Wood, 2011; Laffey et al., 2016), although these have not been subjected to extensive scrutiny.

Offshore Internet Gambling

Offshore Internet gambling sites are those that offer online services to consumers residing in jurisdictions where the operator does not hold a jurisdictionally valid operating license. These sites are usually regulated by gambling licensing authorities in remote jurisdictions that may not explicitly prohibit licensed operators from offering services that violate legislation in international jurisdictions. Offshore operators may specifically target marketing to consumers in jurisdictions in which they do not hold licenses; offering payments in local currencies, local languages, help and support through local telephone numbers, using icons and symbols representative of the jurisdiction, and presenting social cues indicating that users from local jurisdictions use the site. The offshore market may be "grey," in jurisdictions where clear and specific legislation expressly prohibiting these services are absent, or "black," where operators provide services in direct contravention of specific legislation. It is important to note that not all offshore gambling sites offer services to gamblers located in a restricted jurisdiction. Offshore operators may attempt to block customers from restricted jurisdictions by identifying and excluding customers based on IP or mailing addresses. Some gambling licensing authorities include "good character" clauses, such that licensed operators are not permitted to accept customers from prohibited jurisdictions. In contrast, domestically licensed online gambling sites operate within the jurisdictional regulatory framework to provide services to local residents.

The estimated size of the offshore gambling market varies greatly between jurisdictions and is difficult to quantify. A review of the offshore wagering market in Australia recognized the difficulty in accurately appraising the total value, and cited figures ranging from 42.4 to 265 million Euros (O'Farrell, 2015). In Australia, licensed operators are able to provide online lottery and wagering services, although other forms of Internet gambling (casino, slots, poker, etc.) are prohibited. Australian reports suggest that the offshore wagering market has substantially declined, from about 60 percent in 2004 to five percent in 2014 (GBGC, 2015). This change may reflect the legalization and regulation of online wagering markets, resulting in several large offshore operators obtaining domestic licenses. Similarly, the size of the offshore gambling market reduced from 65 percent in 2009 to 20 percent in 2011 in France after the introduction of updated Internet gambling regulations that allowed formerly illegal operators to operate lawfully in the regulated market (Racing Australia, 2015, sec. Senate Standing Committees on Environment and Communication). Following legislative changes to increase licensed availability of Internet gambling the amount of gross win in Western European markets earned under local licenses (as opposed to offshore) has increased from 49 percent in 2008 to 79 percent in 2015, and is forecast to rise to 87 percent by 2019 (GBGC, 2016). These estimates, while tentative, indicate that

where domestic Internet sites are legal, these tend to be used by gamblers. However, engagement with offshore gambling sites is still a concern for regulators.

From a regulator or government perspective, offshore sites are undesirable. They compete with domestically licensed sites, and subsequently undermine the value of licenses, as well as reduce taxation revenue and funds to be used for good causes (Gainsbury and Wood, 2011; Jensen, 2017; Kruse, 2002; Watson et al., 2004). Furthermore, offshore sites do not abide by standards imposed on domestic sites, may not offer adequate consumer protection standards, play management tools, responsible gambling practices, and/or protection from fraud and deception. Offshore gambling sites compete with domestically licensed sites in the same markets with equivalent products and services, or ones that the latter are unable to provide; they hold an unfair competitive advantage given their lack of compliance with marketing / promotional regulations and lower costs related to regulatory compliance (Kruse, 2002). For consumers, offshore sites hold the potential for increased risks, as it may be difficult to assess fairness of outcomes and the safety and security of personal and financial information (Gainsbury et al., 2013). However, offshore sites also allow greater consumer choice, which can offer some benefits in the form of diversified product offering, potential payouts, and gambling experience. This is consistent with a free-market perspective, that consumers should be provided with more choices at more competitive prices (Della Sala, 2010).

Consumer Use of Offshore vs Domestic Gambling Sites

Few studies have specifically examined consumer use of domestic vs offshore gambling. A French study found that gambling on unlicensed sites was associated with more intense gambling and more gambling-related problems as compared to licensed sites (Costes et al., 2016). An Australian survey found that, compared to online gamblers using domestic sites, those using offshore sites in the last 12 months were significantly more likely to be male, younger, less educated, less likely to be working full-time or retired, and more likely to speak a language other than English at home (Gainsbury et al., 2017). The offshore gamblers were also more involved in gambling in terms of frequency and expenditure, and more likely to gamble between 6pm and 6am, hold multiple online gambling accounts, and be influenced by gambling advertisements. Gamblers who used offshore sites were motivated to select sites based on reputation, price, betting options and ease of play, while domestic gamblers looked for legally provided sites, those with responsible gambling tools, and provided by operators known to them. Both groups were similarly accurate in their understanding of relevant Internet gambling regulation, although offshore gamblers were more likely to endorse each online gambling activity as legally provided, when this was not always correct. Offshore gamblers

had higher problem gambling severity scores compared with those who used domestically licensed sites.

Consumer motivation for using offshore gambling sites is not well understood, making it difficult to create policies to discourage use of these. Further, there is limited evidence that consumers understand relevant Internet gambling policies. A large study (N=10,838) found that almost half (49.3 percent) of international Internet gamblers surveyed did not know whether current regulations for Internet gambling were appropriate (Gainsbury et al., 2013). This is consistent with fewer than 10 percent of Internet gamblers considering where a site is regulated when deciding which sites to gamble with (Gainsbury et al., 2012; Wood and Williams, 2011). The "network communitarian" perspective argues that individuals are less concerned with external regulatory constraints when they are embedded within a wider community (Murray, 2010). This perspective emphasizes the social mediation of regulation and that the individual is always already embedded within a wider community within which he or she shares certain values and norms, and that they are influenced by these values. This suggests that if individuals perceive others similar to themselves to be using offshore gambling sites, they are likely to engage with these also. This perspective may explain the relatively low emphasis that consumers put on, and lack knowledge of, Internet gambling regulations. Rather, the network communitarian perspective assumes that individuals engage in illegal, or discouraged, activities because these are accessible, easy to use, and because there are few negative consequences. As such, while users may be inaccurate in their understanding of legislation, this is not due to a lack of education or inability to access this information, but rather due to a lack of motivation to understand the legalities of Internet gambling.

The lack of understanding of consumers who use offshore gambling sites makes it difficult to create public health policies to minimize this behavior. Previous studies of offshore gambling have looked at broad sections of gamblers, including those who have gambled online in the past 12 months. The current study focused on regular Internet gamblers, considering that those who gambled online regularly would be more involved in this activity and that their actions would have greater public health implications. This article compares past-month online gamblers who used offshore as compared to domestically licensed sites, to determine if they represent different cohorts and to understand the motivation for consumers in selecting Internet gambling sites. It was hypothesized that offshore gamblers represent a unique cohort of gamblers—that they would be more likely to be more heavily involved Internet gamblers and would therefore select Internet sites prioritizing economic factors (payout rates, price, promotions) and game experience (gambling options, site features), rather than the regulating authority licensing the site.

Methods

Australian adults who had gambled online in the past four weeks were recruited from an existing online panel maintained by a market research company, and were paid a small (undisclosed) amount for their participation. Inclusion criteria included age 18 years or older, and English comprehension. Based on these inclusion criteria, potential respondents were sent an email providing a brief outline of the survey with directions to access the online survey questionnaire. Participation was based on self-selection, was voluntary, and respondents could withdraw at any time. Ethics approval for this research was received from the University of Sydney Human Research Ethics Committee.

Our sample consisted of the 1001 respondents to the online survey. Respondents were mostly male (57.2 percent), married (53.2 percent), and employed full-time (40.6 percent). Age ranged from 18 to 85, with a significant difference in mean age for males (mean = 50.5, SD = 15.8) and females (mean = 44.9, SD = 15.2), $t(998) = 5.61$, $P < 0.001$, $d = 0.36$.

Measures

Gambling behavior. Fixed choice questions assessed seven types of Internet gambling activities (lottery-type games, electronic gaming machines, race wagering, esports betting, sports betting, poker, casino card or table games, and other) for real money by frequency (at least once per day, per week, in the last four weeks).

Offshore gambling. Respondents completed fixed-choice questions including the sites used for each active form of gambling; reasons for site selection; awareness of which country sites used are licensed in; preference for Australian or overseas sites; and whether their gambling would change if all forms were legally provided online.

Demographics. Age, gender, education, work status, family household income, and ethnic background.

Problem Gambling Severity Index. (Ferris & Wynne, 2001). Questions assessed the extent of gambling-related harm experienced over the previous 12 months with response options of "never," "sometimes," "most of the time," and "almost always." Total scores range from 0–27 and are used to classify respondents into the following groups: non-problem gamblers (PGSI = 0), low-risk gamblers (PGSI = 1 to 2), moderate-risk gamblers (PGSI = 3 to 7) and problem gamblers (PGSI = 8 to 27). Cronbach's alpha for the PGSI in this sample was 0.95. The PGSI has been independently validated and shown to have excellent reliability, dimensionality, external / criterion validation, item variability, practicality, applicability, and comparability (Mcmillen and Wenzel, 2006).

Statistical Analysis

The data were entered and analyzed using SPSS 24.0. Assumptions testing was conducted on all measured variables, including skewness and kurtosis, univariate outliers, and multivariate outliers (Mahalanobis distance). No univariate nor multivariate outliers were identified. Age first gambled, PGSI score, and number of gambling accounts were all highly skewed and leptokurtic; all issues were corrected with a log transformation. Missing values were excluded on a listwise basis.

Chi-square tests and *t*-tests were used to investigate if group differences existed between domestic and offshore gamblers for single-response demographic, gambling behavior, and site selection variables. Following these comparisons, a logistic regression was conducted to determine which characteristics differentiate domestic gamblers from offshore gamblers.

For comparison testing, an alpha of 0.05 was used and effect sizes are reported for all *t*-tests and chi-squares. For *t*-tests, Cohen's *d* is reported (small effect = 0.2, medium effect = 0.5, and large effect = 0.8). For chi-square comparisons, the φ (phi) coefficient was used (small effect = |0.1|, medium effect = |0.3|, and large effect = |0.5|). Following the omnibus tests, standardized residuals (±2) were examined to determine where cell differences lie. Frequency percentages are provided without statistical comparisons where the measurement of certain variables did not meet assumptions of the analytical procedures (i.e., questions offered multiple response options and thus percentage responses sum to more than 100 percent).

Results

Just over half of the participants (52.7 percent) reported having used at least one offshore gambling site in the past month.

Demographics

A significant age difference was found between domestic gamblers (mean = 54.23, SD = 14.57) and offshore gamblers (mean = 42.66, SD = 14.84), with the former statistically older than the latter ($t(999) = 12.416$, $P < 0.001$, $d = 0.79$). As shown in Table 1, there was no statistically significant difference in gender between domestic and offshore gamblers. Offshore gamblers were more likely to have completed higher education levels than domestic gamblers ($\chi^2(4, N = 1001) = 40.586$, $P < .001$, $\varphi = 0.20$), and more likely to be of Asian ethnic background ($\chi^2(4, N = 1001) = 35.217$, $P < .001$, $\varphi = 0.19$). Offshore gamblers were also more likely to work fulltime or be a student, while domestic gamblers were more likely to be retired ($\chi^2(6, N = 984) = 74.001$, $P < 0.001$, $\varphi = 0.27$).

Table 1 – Demographic profiles, *N* = 1001 respondents.

	Domestic gamblers (n = 473) (%)	**Offshore gamblers (n = 528) (%)**
Gender		
Male	285 (60.4%)	287 (54.4%)
Female	187 (39.5%)	241 (45.6%)
***p* > .05**		
Education		
Year 10 or less	76 (16.1%)	57 (10.8%)
Year 12 or equivalent	98 (20.7%)	104 (19.7%)
Trade/technical certificate/diploma	171 (36.2%)	128 (24.2%)
University or college degree	95 (20.1%)	166 (31.4%)
Post graduate qualification	33 (7.0%)	73 (13.8%)
***p* < .001 (χ^2=40.586, df = 4)**		
Employment Status		
Work full time	157 (33.2%)	249 (47.2%)
Work part time or casual	87 (18.4%)	102 (19.3%)
Unemployed	19 (4.0%)	34 (6.4%)
Full-time student	8 (1.7%)	29 (5.5%)
Full-time house duties	26 (5.5%)	35 (6.6%)
Retired	132 (27.9%)	54 (10.2%)
Sick or disability pension	34 (7.2%)	18 (3.4%)
***p* < .001 (χ^2=74.001, df = 6)**		
Family Household Annual Income		
Less than $25,000	37 (7.8%)	45 (8.5%)
$25,000-$49,999	131 (27.7%)	94 (17.8%)
$50,000-$74,999	79 (16.7%)	94 (17.8%)
$75,000-$99,999	64 (13.5%)	94 (17.8%)
$100,000-$124,999	46 (9.7%)	64 (12.1%)
$125,000-$149,999	34 (7.2%)	45 (8.5%)
$150,000-$174,999	11 (2.3%)	22 (4.2%)
$175,000-$199,999	7 (1.5%)	15 (2.8%)
$200,000 or more	11 (2.3%)	16 (3.0%)
***p* = .008 (χ^2=20.722, df = 8)**		
Ethnic Background		
European	382 (80.8%)	350 (66.3%)
South, East, and Southeast Asian	29 (6.1%)	88 (16.7%)
Middle Eastern	5 (1.1%)	14 (2.7%)
Indigenous Australian	10 (2.1%)	13 (2.5%)
Other	47 (9.9%)	63 (11.9%)
***p* < .001 (χ^2=35.217, df = 4)**		

Online Gambling Involvement

Table 2 displays the past four weeks' involvement in all gambling games, as well as games for which the bettors had daily involvement. For gambling games in which both domestic and offshore gamblers participated, offshore gamblers wagered more on sports and racing. As expected, offshore gamblers participated in games not available domestically (i.e., electronic gaming machines, poker, and casino games).

Table 2 – Past four weeks and daily gambling involvement, *N* = 1001 respondents

Online gambling	**Any past four weeks involvement**		**Daily involvement in the past four weeks**	
	Domestic gamblers (n = 473) (%)	Offshore gamblers (n = 528) (%)	Domestic gamblers (n = 473) (%)	Offshore gamblers (n = 528) (%)
Lottery-type games	336 (71.0%)	433 (82.0%)	20 (4.2%)	43 (8.1%)
Slot machines, pokies, electronic gaming machines	0 (0.0%)	437 (82.8%)	0 (0.0%)	28 (5.3%)
Race wagering	179 (37.8%)	320 (60.6%)	23 (4.9%)	34 (6.4%)
Esports betting	9 (1.9%)	167 (31.6%)	1 (0.2%)	23 (4.4%)
Sports betting	157 (33.2%)	344 (65.2%)	6 (1.3%)	40 (7.6%)
Poker	0 (0.0%)	239 (45.3%)	0 (0.0%)	24 (4.5%)
Casino card or table games (not including poker)	0 (0.0%)	238 (45.1%)	0 (0.0%)	23 (4.4%)
Other games	10 (2.1%)	88 (16.7%)	1 (0.2%)	18 (3.4%)

Note. Percentages based on system missing responses deducted from total *N*

Offshore gamblers were significantly more varied in their gambling involvement than domestic gamblers. Offshore gamblers participated in an average of 4.12 (SD = 1.99) gambling games (not including "other"), significantly higher

than domestic gamblers' mean of 1.44 gambling games (SD = 0.68), $t(659.26) = -29.12$, $P < .001$, $d = 1.8$. There was no significant difference in age first gambled between domestic gamblers (mean = 22.80, SD = 8.57) and offshore gamblers (mean = 22.72, SD = 7.77), $P > 0.05$.

Offshore gamblers had a significantly higher average PGSI score (mean = 6.04, SD = 6.26) than did domestic gamblers (mean = 1.51, SD = 3.29), $t(815.34) = -14.53$, $P < 0.001$, $d = 0.91$.

Assessment of Legal Status of Online Gambling Sites

Domestic gamblers were significantly more likely than offshore gamblers to know the licensing jurisdiction of the online gambling sites they use (χ^2 (1, N = 1001) = 26.009, $P < 0.001$, $\varphi = 0.16$). It is of note however, that the majority of respondents in both groups (52.0 percent of domestic, 67.8 percent of offshore gamblers) indicated they did not know their site(s)'s licensing jurisdiction.

Use of Offshore and Domestic Internet Gambling Sites

When asked if—assuming all gambling products were available—they preferred a site licensed in Australia vs overseas, offshore gamblers were significantly more likely to prefer a site licensed overseas (χ^2 (2, N = 1001) = 43.46, $P < 0.001$, $\varphi = 0.21$), although offshore gamblers overall indicated that they preferred sites licensed in Australia (see Table 3). Offshore gamblers were also more likely to indicate that, assuming all forms of gambling were legal, they would increase their gambling activity (χ^2 (3, N = 1001) = 45.72, $P < 0.001$, $\varphi = 0.21$). The majority of offshore and domestic gamblers (65.7 percent and 77.6 percent, respectively), however, indicated that their level of gambling would stay the same.

Table 3 – Gambling site usage and preferences, $N = 1001$ respondents.

	Domestic gamblers (n = 473) (%)	**Offshore gamblers (n = 528) (%)**

If all types of gambling were available, preference to gamble on:		
Sites licensed in Australia	387 (81.8%)	376 (71.2%)
Sites licensed overseas	1 (0.2%)	47 (8.9%)
No preference either way	85 (18.0%)	105 (19.9%)
***p* < .001 (χ^2=43.456, df = 2)**		
If all gambling were legal would your gambling		
Increase	24 (5.1%)	94 (17.8%)
Decrease	19 (4.0%)	36 (6.8%)
Stay the same	367 (77.6%)	347 (65.7%)
Don't know	63 (13.3%)	51 (9.7%)
***p* < .001 (χ^2=45.719, df = 3)**		

Factors Influencing Site Selection Decision

The most popular site characteristics used in common by domestic and offshore gamblers when selecting where to gamble were ease of site use, ability to wager in AUD, ease of placing bets, ease of account creation, promotional offers, operator reputation, and available products (see Table 4).

Offshore gamblers indicated that payout rates, game experience, and sites advertising themselves as "for Australians" influenced their decision on where to gamble, while domestic gamblers were more likely to pick their sites because they were licensed by a respected authority, that they were licensed in Australia, and available payment methods.

Notably, consumer protection standards and the complaint / dispute process, typically indicated as an advantage of licensed sites, was not a particularly popular characteristic for site selection for either group. Responsible gambling tools and resources, one of the most common topics debated in gambling regulation and a considered advantage of licensed sites, was indicated by only 1.3 percent of domestic gamblers and 2.8 percent of offshore gamblers.

Table 4 - Online site characteristics that influenced the decision to gamble at a given online site, *N* = 1,001 respondents.

	Domestic gamblers (n = 473) (47.3%)	Offshore gamblers (n = 528) (52.7%)
Site Characteristic		
Site is easy to use	233 (49.3%)	192 (36.4%)
Ability to bet in AUD$	64 (13.5%)	118 (22.3%)
Site is for Australians	100 (2.1%)	92 (17.4%)
Bets are easy to place	94 (19.9%)	78 (14.8%)
Site is licensed in Australia	114 (24.1%)	74 (14.0%)
Payout rates	30 (6.3%)	70 (13.3%)
Game experience	21 (4.4%)	70 (13.3%)
Ease of account creation	66 (14.0%)	68 (12.9%)
Promotional offers and bonuses	58 (12.3%)	63 (11.9%)
Payment methods available	95 (20.1%)	63 (11.9%)
Reputation of operator	76 (16.1%)	58 (11.0%)
Products available	52 (11.0%)	55 (10.4%)
Site is licensed by a respected authority	71 (15.0%)	41 (7.8%)
Consumer protection standards	27 (5.7%)	25 (4.7%)
Responsible gambling tools and resources	6 (1.3%)	15 (2.8%)
Complaint/dispute process	1 (0.2%)	10 (1.9%)
Total valid responses	*473*	*528*

Characteristics Statistically Differentiating Domestic from Offshore Gamblers

A logistic regression was applied to determine which characteristics differentiated domestic from offshore gamblers. A total of nine predictor variables were used: gender, age, employment status, number of gambling behaviors, number of gambling site accounts, knowledge of where used sites are licensed, license status preference (domestic vs offshore), predicted behavior change if all games were legal, and PGSI score.

Education, income, and ethnic background were not included in the final model, due to lack of significance and minimal contribution to model fit statistics. The model was run with the variables included; removal from the model greatly improved model fit and classification accuracy.

All categorical variables were dummy coded using the following reference groups: gender (male), employment status (work full time), knowledge of where used sites are licensed (yes), license status preference (licensed in Australia), and predicted behavioral change if all games were on sites licensed in Australia (likely increase).

The test of the overall model with nine predictors was significant, χ^2 (17, N = 586) = 400.69, $P < 0.001$, indicating that, all together, these predictors reliably distinguish between domestic and offshore gamblers. The Hosmer and Lemeshow Test was not significant ($P > 0.05$), indicating a good model fit. Overall observed versus predicted classification success was 86.9 percent, with 80.4 percent success for domestic gamblers and 89.9 percent for offshore gamblers. The regression variables were assessed for multicollinearity using Variance Inflation Factor (VIF) diagnostics; VIF for all variables was under 3, well under the threshold indicating multicollinearity (Allison, 2012).

Table 5 outlines regression coefficients, Wald statistics, significance level, and odds ratio for each of the predictor variables, including subcategories for categorical variables. Controlling for all other variables in the model, the significant predictors that differentiate domestic and offshore gamblers (using $\alpha = 0.05$) were: gender, number of gambling behaviors, employment status (particularly unemployed and retired persons, compared to full time employment), number of gambling accounts, and PGSI score. The age variable was close to significance levels, and should certainly be considered within the scope of other variables and be considered for inclusion in future analysis.

Table 5 – Logistic regression of characteristics differentiating domestic gamblers from offshore gamblers, N = 586.

Predictor Variable	B	Wald	Significance Level	Odds Ratio
Gender	**1.757**	**29.031**	**.000**	**5.794**
Age	-.019	2.593	.107	.981
Employment status		**13.230**	**.040**	
Work part-time or casual	.305	.675	.411	1.357
Unemployed	**1.439**	**4.363**	**.037**	**4.176**
Full-time student	1.182	2.623	.105	3.262
Full-time duties	-.574	1.182	.277	.563
Retired	**1.142**	**4.564**	**.033**	**3.132**
Sick or disability	.053	.009	.926	1.054
Number of gambling behaviours	**1.531**	**61.573**	**.000**	**4.622**
Number of gambling site accounts (ln)	**.676**	**5.294**	**.021**	**1.965**
PGSI Score (ln)	**.361**	**5.686**	**.017**	**1.435**
Knowledge of where used sites are licensed	**.660**	**4.919**	**.027**	**1.934**
Assuming all types of products are available, preference for licensing authority		2.398	.301	
Sites licensed overseas	.555	.182	.670	1.741
No preference either way	.538	2.280	.131	1.712
Predicted change in gambling behaviour if all types of gambling games were available on sites licensed in Australia		.338	.953	
Likely stay the same	.212	.244	.622	1.236
Likely decrease	.406	.231	.631	1.500
Don't know	.176	.109	.741	1.193

Note. Significant predictors are identified in bold.

Discussion

Understanding consumers' use of offshore gambling sites is essential to derive policies to reduce use of these sites with the goal of consumer protection. As hypothesized, there were some differences between the cohorts of gamblers who use offshore vs domestic Internet gambling sites. Although gender was not significant at a univariate level, its multivariate contribution to the prediction of using offshore gambling sites demonstrates a significant factor. This may be related to the use of illegal online gambling forms in the examined jurisdiction, such as casino, bingo, and electronic gaming machines, which have higher female

involvement than legal sports and race wagering (McCormack et al., 2014). Offshore gamblers were likely to be younger, more highly educated, and work full time, rather than be retired. This may indicate that those more familiar and comfortable with Internet technology are engaging in offshore gambling. The results are consistent with an earlier Australian study of offshore Internet gamblers in terms of gender and age, however, the previous study found offshore gamblers were less educated and less likely to work full-time or be retired, suggesting that use of offshore sites is changing over time (Gainsbury et al., 2017).

Gambling creates difficulties for regulators as legalization and regulation of the activity offers benefits in terms of revenue through taxation, licensing fees, and other levies, as well as employment, but poses risk for a small group of consumers who experience harms (Forrest, 2008; Gainsbury & Wood, 2011). This is reflected in the exemptions granted around gambling by the European Court as they require member states to open up most other types of markets (Della Sala, 2010). The claims that offshore sites pose a threat to public health may be supported by the current findings that consumers who engage with offshore sites have greater levels of problem gambling severity. Consistent with previous findings, gamblers who used offshore sites were more likely to be experiencing serious gambling-related problems (Costes et al., 2016; Gainsbury, Russell, Blaszczynski, et al., 2015; Gainsbury, Russell, Hing, & Blaszczynski, 2017). In jurisdictions where specific forms of gambling are prohibited there is no legal competition for use of offshore sites and more vulnerable individuals may use these, with few consumer protections in place. Further investigation into the types of gambling that may contribute to Internet gambling problems and additional variants such as comorbid mental health is needed to understand the relationship between offshore gambling and gambling problems.

Across the sample of monthly Internet gamblers, there was relatively poor awareness of where sites used were licensed, with particularly low awareness among the offshore gambler group. There was a clear preference for sites licensed in Australia; however, this was not a major factor considered by most when selecting an Internet gambling site. This indicates that the lack of knowledge of the licensing regulator is likely a factor in the use of offshore sites, and consumers do not appear concerned with where a site is licensed. That is, online gamblers demonstrate little desire to seek out information about licensing. Domestic gamblers placed a greater emphasis on where a site is licensed and that it was licensed within Australia, although only a minority of this group used this as a discriminating factor in selecting Internet gambling sites. Conversely, a site being easy to use and paying in local currency were important factors, suggesting that the overall consumer experience is the priority for gamblers. This is consistent with claims by stakeholders that a single market of Internet gambling sites should be provided across borders, which would facilitate the emergence of competitive firms

across a global industry through sites competing to provide an optimal consumer experience (Della Sala, 2010).

Consumers appear to have strategies for differentiating between the many options available to select a preferred Internet gambling site. As hypothesized, gamblers using offshore sites are more likely to be influenced by factors relevant to payouts and game experience, and are less concerned with the reputation of the operator, where the site is licensed, and available payment methods. However, offshore gamblers did seek sites that are intended for Australians and the ability to bet in local currency, suggesting that they want a customized experience, but are willing to obtain this from an offshore provider. These results are thus consistent with the network communitarian perspective (Murray, 2010), as offshore gamblers are motivated to select sites that are easy to use, offer attractive products, and are used by others similar to them. A potentially useful target for regulators are sites that specifically cater for and appeal to local consumers, including indicators that other local consumers use and enjoy these sites. Increasing positive attitudes towards the desired behavior (i.e., using domestically licensed sites) may reduce use of illegal sites. However, it may be difficult for governments to use positive reinforcement techniques, given the potential harm from gambling and the goal of government to protect its citizens from harm. Further, in some jurisdictions, online gambling is not permitted, preventing efforts to discourage use of offshore sites by promoting legal alternatives.

In terms of further policy implications, only a minority of consumers indicated that their gambling would increase with liberalization of Internet gambling policies. This self-report is limited in terms of insight and accurate reporting, but the majority of consumers did not consider that their Internet gambling would change with policy revision. This may indicate that consumers can already access all forms of gambling through offshore sites such that regulatory updates would not actually change access to Internet gambling. However, if further liberalization of an Internet gambling market included allowing expanded advertising, examples from advertising of Internet sports wagering would suggest that this would be highly prevalent (Lopez-Gonzalez et al., 2017). The potentially harmful role of advertising has been identified in several European Union policy documents and recommendations (Lopez-Gonzalez and Griffiths, 2016). Any policy revisions considered should carefully evaluate what advertising, including inducements to be offered, would be allowed to accompany these.

Educational efforts used in the media industry focus on the damage to creative industries (Edwards et al., 2013). Similar efforts for gambling may include emphasizing the role of domestically licensed gambling operators in preventing match-fixing and contributing funds towards sports and races to enable these industries to continue, including at grass-roots levels, as well as government revenue put towards good causes. This may be effective due to in-group thinking

of sports fans who may be encouraged to support their team and sport. In line with the network communitarian perspective (Murray, 2010), stressing the importance of common values and norms may encourage use of domestic sites, if this is perceived to be typical behavior. However, arguments based on contribution to the greater good are found to be unsuccessful given the tendency for people to have reduced morality online and focus on benefits to themselves (Flores and James, 2013). Thus, if there are perceived benefits of offshore to domestic sites, social campaigns will have less success.

Regulation of gambling represents a differentiated system given the tension between the potential revenue, but also harms, that exist in relation to this activity (Kingma, 2008). Enforcement of Internet gambling policies is inherently difficult. Policies to deny consumers access to offshore gambling sites may be unsuccessful due to technological difficulties with limiting and restricting access (Bambauer, 2009; Lacharite, 2002). However, the results indicate that offshore sites are appealing to those most vulnerable to gambling problems. This suggests that enforcement of policies is important to enhance for consumer protection. Further efforts undertaken in Australia to enhance prohibition of offshore sites includes writing to operators and international regulators to notify them that they are in breach of regulations, civil and criminal penalties and referral of identified individuals to police and border protection agencies, and high monetary penalties. Research is needed to determine the impact of these policies on use of offshore sites.

Nonetheless, Internet censorship raises important issues for debate surrounding political and social issues. An alternate or supplementary strategy to blocking access is through consumer education. Research suggests that campaigns based on fear or negative framing, such as the risks of using offshore sites, may be unsuccessful, because these are too narrow to be considered relevant, or because the information is discounted as untrue or unlikely (Bennett, 1996; Fukunaga et al., 2013; Monaghan and Blaszczynski, 2009). Use of positive framing, meanwhile, is consistent with regulators and industry stakeholders shifting the tone and content of educational campaigns designed to reduce illegal downloading of media away from threats of legal action, to the threat of poor media experience and social embarrassment (Edwards et al., 2013). Positive framing, such as highlighting the benefits of using domestic sites, may appeal to offshore gamblers' desire for a better user experience. Nonetheless, there is some evidence that gamblers who use offshore sites have lower concerns about the risks of these, potentially suggesting that risks are overstated and offshore sites do offer a superior gambling experience (Gainsbury et al., 2017). If this is accurate, it further supports the strategy of policies that enable domestically licensed operators to provide services and products of a quality that enables them to successfully compete with offshore providers. The Strategic Advisory Board for Intellectual Property Policy recommends that a

greater understanding of people's attitudes and behaviors is required to enable policymakers to devise effective laws and enforcement for online regulations (Hunt et al., 2009).

From a public health standpoint, governments and regulators are urged to develop more effective policies and campaigns with increased recognition of the potential consumer risks, including gambling-related problems. Results of this study show that use of offshore gambling sites is associated with greater levels of problem gambling severity. By making the costs to society more explicit, including the potential costs to individuals and their families and friends, the relative perceived benefits of using offshore sites may decrease. However, it is essential that efforts are taken to reduce risks of using domestic sites and increase the provision of consumer protection tools and resources. Governments may expose themselves to criticism if they take a position that offshore gambling is related to risks, but implement few initiatives to reduce these risks on domestically licensed sites (Della Sala, 2010). There is limited evidence that responsible gambling tools currently in place on online sites are effective (Edgerton et al., 2016), suggesting that more research is needed to determine what does make domestically licensed sites safer for consumers.

This study makes a useful contribution to the field by considering a relatively large sample of regular Internet gamblers. Previous studies often include gamblers who have used online sites in the past year, which has benefits in terms of diversity, but lack a representative sample of frequent, highly involved gamblers, who likely have a greater market impact in terms of sites used. Nonetheless, there are limitations to the conclusions that can be drawn. The benefit of using highly involved Internet gamblers also means that the sample cannot readily be compared to more general samples of those who have gambled online in the past year. Although there was some evidence of ethnicity being an important differentiating factor between offshore and domestic gamblers, the survey was English-language, and it is likely that the sample had limited diversity to appropriately study this relevant variable. The survey was self-recruited, so the sample is not representative of all Internet gamblers, and responses are self-reported, which is limited in terms of accuracy of insight and reporting biases. Future work should also include behavioral data, such as Internet traffic to offshore gambling sites, to allow meaningful interpretation of this data. Additionally, conducting qualitative research to ascertain motivations for gambling and further context for Internet gambling would provide important insights to understand the current data. It is beyond the scope of the current study to focus on the overall gambling involvement of the participants; however, this is intended to be the focus of future articles.

Conclusions

Internet gambling policies, although initially restrictive, have recently reoriented toward liberalization, in part recognizing the difficulties in limiting access to offshore sites. Nonetheless, the use of offshore sites (those operating without a local license) creates difficulties, as these may not offer adequate consumer protections, and also do not contribute to local economies. This research suggests that a large proportion of regular Internet gamblers engage with offshore gambling sites and appear largely unconcerned with regulatory status, despite an overall preference for domestic sites. This indicates that offshore sites offer a competitive product that is not replicated by domestic sites, and that gamblers are not seriously concerned with licensing details. Offshore gambling appears to be primarily related to intense gambling involvement in terms of frequency and diversity of activity, and offshore gamblers are more likely to look to factors such as gambling site experience and payout rates than are users of domestic sites. Offshore gamblers appear to represent a distinct cohort, including displaying a greater risk of experiencing gambling problems. This further emphasizes the importance of policies to address this behavior. Continued efforts to understand consumer behavior, including perception of risks and perceived benefits, is important to enable design of effective policies.

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