

Factors influencing the adoption of pre-commitment devices for online gambling

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Factors influencing the adoption of pre-commitment devices for online gambling

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Running title: What impacts use of deposit-limit in online wagerers?

Abstract

Deposit limits are a voluntary pre-commitment device that allow gambling customers to pre-select the amount of money they want to be able to deposit into their gambling accounts, representing an external aid to self-control. This study aimed to investigate attitudes towards and use of deposit limits along with perceived barriers and motivators to use among regular online gambling customers using the Theory of Planned Behaviour as a framework. An online survey was completed by 299 participants [84.3% male; M age=48.85] years recruited through an Australian online wagering operator. Results showed that positive attitudes and perceptions of social norms was related to deposit limit use and that not knowing what limit to set was a significant barrier to use, thus supporting the Theory of Planned Behaviour as a relevant framework. Additional barriers to use included perceptions that individuals could manage their own betting, that deposit limits were for people with gambling problems, not wanting to change or have their gambling constrained, and not knowing what limit to set. Motivators included concerns that individuals might be betting too much and wanting to limit their spend. This specific exploration of barriers and motivators to use deposit limits will

enable strategies to be developed to enhance voluntary uptake and meaningful engagement among a broader group of gambling customers.

Keywords: responsible gambling, consumer protection, internet gambling, deposit limits, prevention, harm minimisation

Introduction

Gambling, rooted in principles of odds and probability, inherently carries risks of financial loss with each wager (Fontaine et al. 2023). Despite these risks, gambling remains a prevalent and socially acceptable form of recreation in many cultures (Delfabbro and King 2022).

Gambling disorder is recognised as an addictive disorder according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR), marked by persistent and distressing outcomes stemming from gambling. Gambling problems denote harms at a sub-clinical level, characterised by significant investments of time and money into gambling activities resulting in serious negative consequences for the individual and those around them (Paterson, Taylor, and Gray 2020). Gambling harms occur along a continuum and across different domains, with most individuals experiencing low-range harms. Effective harm reduction strategies play a crucial role in safeguarding individuals and the broader community from the adverse consequences of gambling, promoting lower-risk gambling behaviour, and fostering healthier gambling environments.

In Australia, the rise of online wagering has been pronounced, with estimates indicating a doubling in the prevalence of Australian adults gambling online from 12.6% in 2010/11 to 30.7% in 2019 (Hing et al. 2021). Online wagering (i.e., race and sports betting) and lotteries

are permitted to be provide by licensed Australian operators, with all other forms of gambling being prohibited online. A nationally representative Australian survey found that 5.1% and 6.3% of past-month race and sports wagering customers respectively are classified as having gambling problems, with a further 16.8% and 17.1% classified as at moderate-risk of gambling problems (Armstrong and Carroll 2017). Harm-minimisation interventions and tools have been voluntarily implemented by online wagering operators and required through legislative updates including deposit limits, clear activity statements detailing spend, time-outs, and self-exclusion. These are all voluntary for customers to use and previous Australian research suggests that uptake is low (Heirene, Vanichkina, and Gainsbury 2021).

Deposit limits are a pre-commitment device which act as an external mechanism to assist with self-control on gambling expenditure. In the context of an Australian online wagering operator, customers can choose to set limits over various time periods (24 hours, 7 days, 30 days etc) and when these are reached customers cannot make further deposits into their account. The National Consumer Protection Framework legislates that customers are prompted to set a deposit limit when they create an account and receive at least one annual reminder. Surveys have indicated positive attitudes towards deposit limits among online gamblers, with a significant proportion expressing the perceived need for these (Auer and Griffiths 2023; Procter et al. 2019; Tong et al. 2018).

Several key barriers have been identified in influencing decisions to use deposit limits. These include a lack of awareness about the available harm reduction tools (Gainsbury, Hing, and Suhonen 2014) and a desire to avoid social stigma and stress (van der Maas et al. 2019). Griffiths, Wood, and Parke (2009), found that some individuals refrain from using deposit limits due to the frustration of restricting their gambling activities. In a previous Australian study, Gainsbury et al. (2020), investigated customer motivations and barriers towards

consumer protection tools among 564 participants recruited from online wagering operators. Results showed significant barriers to deposit limits including that many participants believed these tools were only intended for individuals with gambling problems. The main motivator for using these tools was an individuals' desire to feel in control of their gambling and proactively manage it, followed by concerns about developing gambling problems.

The current study will explore how online wagering customers perceive deposit limits including how barriers and motivators impact deposit limit use. Based on a literature review, we propose five constructs for barriers:

- Relevance – Pertaining to individuals' perceptions regarding the applicability of deposit limits to their circumstances.
- Stigma – Reflecting concerns regarding potential societal stigma linked to the adoption of deposit limits.
- Privacy – Encompassing apprehensions regarding potential breaches of privacy stemming from the utilisation of deposit limits.
- Behavioural – Addressing issues arising from the perceived impact of deposit limits on individuals' gambling activities.
- Knowledge – Entailing a lack of comprehension regarding the implementation of deposit limits.

Additionally, we propose two constructs elucidating motivators for deposit limit adoption:

- Problem Gambling – Reflecting individuals' apprehensions regarding the emergence of gambling-related issues.
- Control – Signifying individuals' aspirations for heightened control and management over their gambling habits.

Understanding the factors that influence individuals' engagement with deposit limits in the context of gambling behaviour is crucial for developing effective harm reduction strategies and encouraging voluntary uptake and meaningful engagement. Although self-report surveys serve as valuable tools for data collection, accurately measuring actual behaviour change poses challenges. However, integrating measures of intention to use deposit limits allows for the application of the Theory of Planned Behaviour (TPB), offering insights into predicting behaviour change. The TPB, posited by Fishbein and Ajzen (2009), suggests that an individual's intention to perform a behaviour serves as the primary predictor of actual behaviour enactment. In the realm of gambling, the TPB has been instrumental in elucidating how attitudes towards gambling influence intentions to utilise responsible gambling tools (Flack and Morris 2017).

The current study aims to a) explore the characteristics of those who do and do not use deposit limits including perceptions towards deposit limits; b) examine the role of these factors along with the proposed barriers and motivators constructs to using deposit limits; c) consolidate and validate these constructs proposed and explore how these constructs impact deposit limit use. By incorporating the TPB into our study, we seek to deepen our understanding of the factors driving engagement with deposit limits and inform the development of targeted interventions to promote responsible gambling practices.

Methodology

Participants

The study recruited active Australian online wagerers aged 18 and above through an online wagering operator. Eligibility required participants to have placed an online bet in the preceding 6 months. A recruitment email and SMS were sent to 24,000 randomly selected customers, with a reminder after one week. The communication included study details, a

URL link to a Qualtrics-hosted online survey, a participant information sheet, and obtained consent online. The analysis focused on relevant measures within the larger Australian gambling research project. Of the 24,000 customers who were sent the invitation, 29% opened it. Of those, n=473 began the survey, Individuals were excluded from the study if they failed one or more attention check items (n = 66). The final sample consisted of n=407 respondents, of which, n=299 (63.21%) fully completed the survey. Of the n=299, the average age was 48.85 (SD=15.65), with the majority falling between 35-44 years of age category. The gender distribution shows 84.3% identifying as male and 15.7% female participants, with no non-binary individuals.

Procedure

The study, approved by the Human Research Ethics Committee (Protocol No, 2018/400), employed Qualtrics for anonymous survey completion. Each participant received a unique ID for anonymity. Consent was obtained through the provided link in the recruitment communication. Post-survey, participants received an end-message and a debrief containing study contact details and information about available gambling help resources.

Outcome Measures

General Demographics

Questions from the 2021 ABS census household survey gathered information on age, gender, education, work and marital status, household income, and language spoken (ABS; 2021).

Use of Deposit Limits

One item asking if participant's currently use a deposit limit was included to screen for deposit limit use, participants responded with 'yes' or 'no'.

A further six items asking participants on their past use of deposit limits and to provide information on their level of satisfaction, and how many times users have increased or decreased their deposit limit.

Gambling Behaviour

The current study used modified items that were developed for a previous thesis which consisted of several items concerning gambling frequency and behaviour of participants to provide greater context of each participant's gambling involvement. The items included frequency of gambling in the past month, monthly spending on gambling, budgeting strategies concerning gambling and gambling activity type (Procter, 2018).

Problem Gambling Severity

Participants gambling severity was measured using the Problem Gambling Severity Index (PGSI) from the Canadian Problem Gambling Index (Ferris 2001). The PGSI is a standardised measure of at-risk behaviour in problem gambling consisting of 9 items asking about self-beliefs of one's gambling behaviour and problems. This index was designed specifically to be used by the general population and has shown to have high internal validity and good item-response characteristics (Holtgraves 2009). The PGSI uses a 4-point Likert scale ranging from 0 (Never), 1 (Sometimes), 2 (Most of the Time) to 3 (Almost Always). The summation of scores ranges from 0 to 27 and indicate risk level of problem gambling with scores of 0 meaning no gambling problems, scores of 1-2 indicating low-risk gambling problems, to scores of 8-27 meaning probable problem gambling.

Life and Gambling Satisfaction

Two items on general wellbeing and gambling satisfaction were included in this survey to analyse participants' levels of wellbeing, as measured through satisfaction ratings. The first

item on general wellbeing was adapted from the Household, Income and Labour Dynamics in Australia (HILDA) survey (Tulloch et al. 2023).

Financial Wellbeing

Five items relating to financial wellbeing from the Financial Well-being Scale (Botha 2020) were used to assess how participants are coping with financial implications of their gambling to their wellbeing. Individual questions were score ranging from Zero (Not at All/Disagree) to Four (Completely/Strongly Agree) and a total score calculated with higher score indicating better financial wellbeing.

Perceived Barriers and Motivators for Deposit Limit Use

This section recorded participant's barriers and motivators towards engaging with a deposit limit. The measure used modified items from previous research on the barriers and motivators affecting treatment-seeking for gambling (Procter et al. 2019; Gainsbury, Hing, and Suhonen 2014). Participants were asked 'How important are the following reasons in deciding whether to set a deposit limit?' (entire scale: Supplementary Table 1) and asked to respond from 0 (strongly disagree) to 4 (strongly agree). Each item was designed around two overarching themes, 1) barriers, which are described as thoughts or circumstances that would deter people from using deposit limits. and 2) motivators, which have been defined as thoughts or circumstances that would prompt people to use deposit limits.

The barriers included:

1. Relevance: perception of the relevance of deposit limits to participant's own gambling. Participants who score higher on this construct may not see deposit limits as applicable or necessary to their style of gambling.

2. Stigma: concerns about the potential social stigma associated with utilising deposit limits. Participants who rate this construct higher may fear being judged or labelled negatively for using such measures.
3. Privacy: concerns about privacy breaches associated with setting deposit limits. Participants who score higher on this construct may worry about their personal information being compromised or accessed by others.
4. Behavioural: concerns with deposit limits impacting participant's ability to engage in gambling. Participants scoring higher here may perceive deposit limits as restrictive or hindering their gambling experience.
5. Knowledge: This understanding of how to utilise deposit limits effectively. Participants scoring higher on this construct may lack the necessary information or guidance on how to implement deposit limits.

The motivators included:

1. Problem Gambling: belief that participant's may be developing gambling-related problems. Participants scoring higher here may recognise warning signs or negative consequences of their gambling behaviour.
2. Control: Participants' desire for greater control and management of their gambling behaviour. Participants scoring higher want to maintain control over their gambling expenditure and frequency.

Statistical Analysis

Statistical analyses will be executed using SPSS, with a significance level set at $\alpha = 0.05$.

Initially, a descriptive analysis will characterise the demographic profile of the sample, encompassing variables such as age, gender, education, occupation, marital status, household

income, and primary language spoken. Associations between these demographics and deposit limit use will be explored using chi-square tests or Fisher's exact tests for categorical variables and t-tests or ANOVA for continuous variables.

Subsequent to this, to validate the constructs proposed, exploratory factor analysis (Koomson, Churchill, and Munyanyi) will be employed for each perceived barrier and motivator construct. The EFA procedure will entail identifying factors based on factor loadings eigenvalues and scree plot inspection, utilising principal component analysis for factor extraction followed by varimax rotation. The suitability of the factor solution will be scrutinized using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. Items within each construct will be interpreted and labelled according to their highest loadings. Grounding interpretations in theoretical constructs such as Relevance, Stigma, Privacy, Behavioural, and Knowledge for barriers, and Problem Gambling, and Control for motivators.

Correlation analyses will explore associations between individual barrier and motivator constructs with deposit limit use and intention to use. To test for multicollinearity, multiple linear regressions will be conducted by iterating the independent variables. Intercorrelations will be reported using the variance inflation factor (VIF), a measure of the amount of multicollinearity. This ratio is calculated for each independent variable. A high VIF (a cut-off of 5 or more) indicates that the associated independent variable is highly collinear with the other variables in the model; in such instance, these variables will be removed from future regression analyses. Visual checks confirmed assumptions for multiple regression analyses (multivariate normality and linearity, and multicollinearity) were fully met.

Post validation of constructs, individual associations between deposit limit use and barriers and motivators will be conducted through independent sample t-tests.

Lastly, two multiple logistic regression model will be constructed to investigate the combined predictive value of 1) demographics, satisfaction with life and betting, financial wellbeing, gambling behaviour and attitudes, and PGSI and 2) individual barriers and motivators, on deposit limit use.

Results

Demographic variables

Table 1 summarises the demographic characteristics of the 299 participants. Educational background of participants varied, with majority holding at least bachelor's degrees, and employment status is predominantly full-time employment (64.5%). The annual family income distribution is diverse, although 66.22% had annual family incomes equal to or exceeding \$100,000. Most participants spoke English only (95.3%), and marital status was spread across categories, with a significant portion being married (46.8%). In terms of dependent children, a majority had none (59.2%).

When comparing demographic factors with and without deposit limit use, we found there were no associations with any demographic variables and deposit limit use in this sample (Table 1).

Table 1 Demographic and Descriptive Characteristics of Overall Participants and Associations with Deposit Limit Use (n=299)

Demographic Characteristic	Overall (n=299)		Deposit Limit Users (n=77, 25.75%)		Non-Deposit Limit Users (n=222, 74.25%)		Sig. Test
	m	sd	m	sd	m	sd	t-Test
Age	48.85	15.65	50.18	16.09	48.39	15.51	t = .867, p = .387
	n	%	n	%	n	%	X ²
Gender							
Male	252	84.28	65	84.42	187	84.23	r = .001, p = .970
Female	47	15.72	12	15.58	35	15.77	
Non-Binary	0	0	0	0	0	0	
Level of Education							
Doctoral Degree	3	1.00	0	0	3	1.35	r = 6.063, p = .532
Master's Degree	17	5.69	3	3.90	14	6.31	
Graduate Diploma or graduate Certificate	29	9.70	10	12.99	19	8.56	
Bachelor's Degree	64	21.40	19	24.68	45	20.27	
Advanced diploma / diploma	41	13.71	6	7.79	35	11.26	
Certificate III / IV	53	17.73	14	18.18	39	13.06	
Year 12	52	17.39	14	18.18	38	17.12	
Year 11 or Below (Includes Certificate I / II / n)	40	13.38	11	14.29	29	13.06	
Employment Status							
Employed full time	193	64.55	50	64.94	143	64.41	r = 7.053, p = .217
Employed part time or casual	27	9.03	3	3.90	24	10.81	
Not currently employed	13	4.35	6	7.79	7	3.15	
Retired	53	17.73	13	16.88	40	18.02	
Full time student	10	3.34	4	5.19	6	2.70	
Principally engaged in domestic duties	3	1.00	1	1.30	2	0.90	
Annual Family Income							

\$1 - \$9,999 per year	4	1.34	1	1.30	3	1.35	r = 3.684, p = .997
\$10,000 - \$19,999 per year	3	1.00	1	1.30	2	0.90	
\$20,000 - \$29,999 per year	7	2.34	2	2.60	5	2.25	
\$30,000 - \$39,999 per year	15	5.02	6	7.79	9	4.05	
\$40,000 - \$49,999 per year	9	3.01	3	3.90	6	2.70	
\$50,000 - \$59,999 per year	11	3.68	2	2.60	9	4.05	
\$60,000 - \$79,999 per year	22	7.36	6	7.79	16	7.21	
\$80,000 - \$99,999 per year	40	13.38	9	11.69	31	13.96	
\$100,000 - \$124,999 per year	33	11.04	9	11.69	24	10.81	
\$125,000 - \$149,999 per year	34	11.37	8	10.39	26	11.71	
\$150,000 - \$199,999 per year	48	16.05	12	15.58	36	16.22	
\$200,000 or more per year	43	14.38	10	12.99	33	14.86	
Don't know	7	2.34	1	1.30	5	2.25	
Prefer not to say	24	8.03	7	9.09	17	7.66	
Household Language							
English-Only	285	95.32	75	97.40	210	94.59	r = 5.327, p = .503
Multi-lingual	14	4.68	2	2.60	12	5.41	
Marital Status							
Never married	64	21.40	21	27.27	43	19.37	r = 2.955, p = .565
Divorced or separated	35	11.71	8	10.39	27	12.16	
Widowed	5	1.68	2	2.60	3	1.35	
De facto / Living with partner	55	18.39	12	15.58	43	19.37	
Married	140	46.82	34	44.16	106	47.75	
Dependent Children							
0 (None)	177	59.20	51	66.23	126	56.76	r = 4.372, p = .497
1	43	14.38	8	10.39	35	15.77	
2	51	17.06	9	11.69	42	18.92	
3	22	7.36	7	9.09	15	6.76	

4	3	1.00	1	1.30	2	0.90
5 or more	3	1.00	1	1.30	2	0.90

Gambling behaviour

Most participated in gambling at least several days per week (28.09%) in the last 12 months. Half of the sample currently had at least four online wagering accounts (50.51%). For one-third (33.78%) wagering was their only gambling activity. The frequency of placing bets ($r = 8.895$, $p = .113$), the number of online wagering accounts ($r = 4.907$, $p = .671$) and the number of different gambling activities in the last month ($r = 4.459$, $p = .485$) were not significantly different between those who do and do not use deposit limits. Nonetheless, deposit limit users tended to be more likely to use have more than one wagering account (75.32% vs. 69.32%), appeared to bet more frequently, and were more likely to gamble on additional activities as compared to non-deposit limit users, noting that these differences were not statistically significant (Table 2).

Table 2 Gambling Behaviour of Overall Participants and Associations with Deposit Limit Use (n=299)

Demographic Characteristic	Overall (n=299)		Deposit Limit Users (n=77, 25.75%)		Non-Deposit Limit Users (n=222, 74.25%)		Sig. Test
	n	%	n	%	n	%	X ²
Frequency of placing bets in the last 12 months							r = 8.895, p = .113
Multiple times per day	35	11.71	11	14.29	24	10.81	
Once per day	3	1.00	0	0	3	1.35	
Several days per week	84	28.09	28	36.36	56	25.23	
At least once per week	73	24.41	19	24.68	54	24.32	
Several days per month	43	14.38	5	6.49	38	17.12	
At least once per month	61	20.40	14	18.18	47	21.17	
Current number of online wagering accounts							r = 4.907, p = .671
1	87	29.10	19	24.68	68	30.68	
2	40	13.38	13	16.88	27	12.16	
3	21	7.02	8	10.39	13	5.86	
4	68	22.74	18	23.38	50	22.52	
5	35	11.71	9	11.69	26	11.71	
6+	48	16.06	10	12.99	38	17.12	
Number of other non-online wagering gambling activities in last month							r = 4.459, p = .485
0	101	33.78	21	27.27	80	36.04	
1	127	42.47	40	51.95	87	39.19	
2	47	15.72	11	14.29	36	16.22	
3	16	5.35	4	5.19	12	5.41	
4	7	2.34	1	1.30	6	2.70	
5	1	0.33	0	0	1	0.45	
Attitudes toward deposit limits							r = 17.706, p < .001
Usefulness	84	28.09					
Worthless	41	13.71	9	11.69	75	33.78	
Neutral	174	58.19	8	10.39	33	14.86	

Useful			60	77.92	114	51.35	
Good practice							$r = 22.381, p < .001$
Bad practice	21	7.02	1	1.30	20	9.01	
Neutral	44	14.72	1	1.30	43	19.37	
Good Practice	234	78.26	75	97.40	159	71.62	
Good utility							$r = 29.395, p < .001$
Unpleasant	54	18.06	6	7.79	48	21.62	
Neutral	103	34.45	14	18.18	89	40.09	
Pleasant	142	47.49	57	74.03	85	38.29	

Deposit Limit Use

When asked about deposit limits, most participants reported deposit limits as useful (58.19%), good practice (78.26%), and just under half reported that deposit limits were pleasant to use (47.49%). Greater positive perceptions of deposit limits across all domains were correlated with current deposit limit use (usefulness: $r = 17.706$, $p < .001$; good practice: $r = 22.381$, $p < .001$; good utility: $r = 29.395$, $p < .001$).

One-quarter of participants were current deposit limit users $n=77$ (25.75%); $n=6$ were first time deposit limit users and the remainder had used deposit limit previously. Most participants set limits for a 7-day period (45.61%), followed by 24 hours (19.30), 14 (14.04%) or 30 days (14.04%). A large portion (43.04%) of deposit limit users report using different deposit limits across betting sites, although (40.51%) used the same deposit limit. Most current deposit limit users (80.70%) report being satisfied, with a smaller proportion expressing neutrality (15.79%) and dissatisfaction (3.50%). Around one-third (32.47%, $n=25$) indicate that their betting practices were influenced by deposit limits; Of these, 19.5% ($n=15$) indicated spending less time betting, 22.1% ($n=17$), reported an enhanced sense of control, 22.1% ($n=17$) reported a reduction in the amount of money spent on betting, 10.4% ($n=8$) reported thinking about betting less frequently, 6.5% ($n=5$) reported increased betting-related thoughts, 3.9% ($n=3$) redirecting their betting focus towards other activities, while 2.6% ($n=2$) delegating betting responsibilities to others and 2.6% ($n=2$) expressed feeling a decreased sense of control over their betting activities.

Barriers and Motivators Constructs

Validity and Reliability

Initially, the factorability of the 22 of the construct items were examined. Firstly, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.76, above the recommended value

of 0.5, and Bartlett's test of sphericity was significant ($\chi^2(231) = 1071.30, p < .001$). The communalities were also all above .4 and under .8, further confirming that each item shared some common variance with other items whilst not being redundant. Given these overall indicators, a factor analysis was conducted for all 22 items.

The results of the individual construct factor analysis indicate that all constructs are reliable including: Relevance, KMO = 0.61, ($\chi^2(3) = 55.90, p < .001$) construct is reliable, supported by the factor loadings for each item in the scale ($\lambda_1 = 1.68, \lambda_2 = .78, \lambda_3 = .54$); Stigma, KMO = 0.56, ($\chi^2(3) = 41.02, p < .001$) construct is reliable, factor loadings ($\lambda_1 = 1.56, \lambda_2 = .87, \lambda_3 = .57$); Privacy, KMO = 0.62, ($\chi^2(3) = 34.33, p < .001$) construct is reliable, factor loadings ($\lambda_1 = 1.56, \lambda_2 = .76, \lambda_3 = .68$); Knowledge, KMO = 0.51, ($\chi^2(3) = 11.52, p = .009$) construct is reliable, factor loadings ($\lambda_1 = 1.28, \lambda_2 = .96, \lambda_3 = .75$); Behavioural, KMO = 0.52, ($\chi^2(3) = 22.07, p < .001$) construct is reliable, factor loadings ($\lambda_1 = 1.39, \lambda_2 = .96, \lambda_3 = .67$); Problem Gambling KMO = 0.74, ($\chi^2(3) = 263.70, p < .001$) construct is reliable, factor loadings ($\lambda_1 = 1.42, \lambda_2 = .83, \lambda_3 = .75$); Control KMO = 0.68, ($\chi^2(4) = 64.12, p < .001$) construct is reliable, factor loadings ($\lambda_1 = 1.83, \lambda_2 = .85, \lambda_3 = .72, \lambda_4 = .60$) (Supplementary Table 1). Thus, confirming the reliability and validity to continue analysis on the individual constructs.

Correlations

Considering the overall sample, several variables were significantly inter-correlated (Supplementary Table 2). Although many inter-correlations noted in this sample, they were not highly collinear (did not meet VIF > 5). Therefore, no variables were therefore removed from regression analyses.

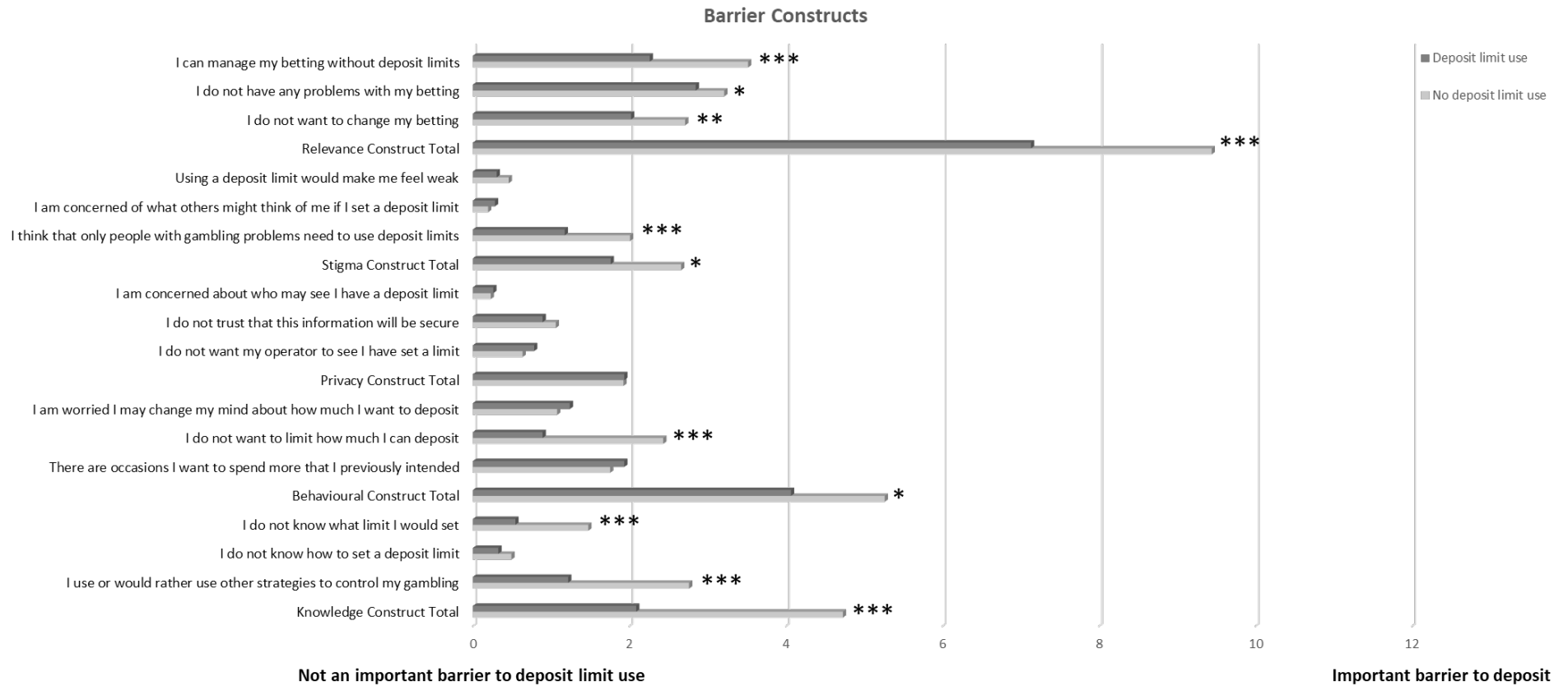
Barriers

Figure 1 illustrates the mean scores for various barrier constructs among users and non-users of deposit limits. Among these constructs total scores, the Relevance Total Construct had the highest mean score for non-users ($M = 9.44$, $SD = 2.63$) compared to users ($M = 7.13$, $SD = 2.71$). A significant difference was found between users and non-users regarding the Relevance barrier ($t = -5.010$, $p < .001$), indicating that non-users perceive the relevance of deposit limits as more of a barrier compared to users. Non-users exhibited higher mean scores compared to users for; the Stigma Total Construct (Non-users: $M = 2.66$, $SD = 2.03$; Users: $M = 1.76$, $SD = 1.73$), which was statistically significant ($t = -2.301$, $p = .023$), the Behavioural Total Construct (Non-users: $M = 5.26$, $SD = 2.77$; Users: $M = 4.07$, $SD = 2.67$), also statistically significant ($t = -2.515$, $df = 162$, $p = .013$), and the Knowledge Total Construct (Non-users: $M = 4.73$, $SD = 2.27$; Users: $M = 2.09$, $SD = 1.88$) ($t = -7.013$, $df = 162$, $p < .001$) barrier. Users and non-users reported similar scores for rating Privacy Total Construct as a barrier (Non-users: $M = 1.92$, $SD = 1.92$; Users: $M = 1.93$, $SD = 1.87$) which was not statistically significant ($t = .029$, $df = 162$, $p = .489$).

Statistically significant differences were observed between deposit limit users and non-users across various items within different barrier. In the relevance domain, all three items exhibited substantial differences. Users consistently reported lower scores than non-users ($M = 2.26$, $SD = 1.51$ vs. $M = 3.52$, $SD = 0.97$, $p < .001$ for Item 1 "*I can manage my betting without deposit limits*"; $M = 2.85$, $SD = 1.23$ vs. $M = 3.21$, $SD = 1.15$, $p = .038$ for Item 2 "*I do not have any problems with my betting*"; $M = 2.02$, $SD = 1.48$ vs. $M = 2.71$, $SD = 1.25$, $p = .002$ for Item 3 "*I do not want to change my betting*"). In the stigma construct, only Item 3 "*I think that only people with gambling problems need to use deposit limits*" showed a significant difference ($M = 1.17$, $SD = 1.62$ for users vs. $M = 2.01$, $SD = 1.44$ for non-users, p

< .001). In the behavioural construct, only Item 2 "*I do not want to limit how much I can deposit*" presented a statistically significant distinction (M = 0.89, SD = 1.22 for users vs. M = 2.43, SD = 1.40 for non-users, $p < .001$). Within the knowledge domain, significant discrepancies were evident for Item 1 "*I do not know what limit I would set*" (M = 0.54, SD = 0.98 for users vs. M = 1.47, SD = 1.36 for non-users, $p < .001$) and Item 3 "*I use or would rather use other strategies to control my gambling*" (M = 1.22, SD = 1.19 for users vs. M = 2.76, SD = 1.25 for non-users, $p < .001$) (Figure 1).

Figure 1 Mean Importance Scores for Barrier Constructs for deposit limit use and non-use



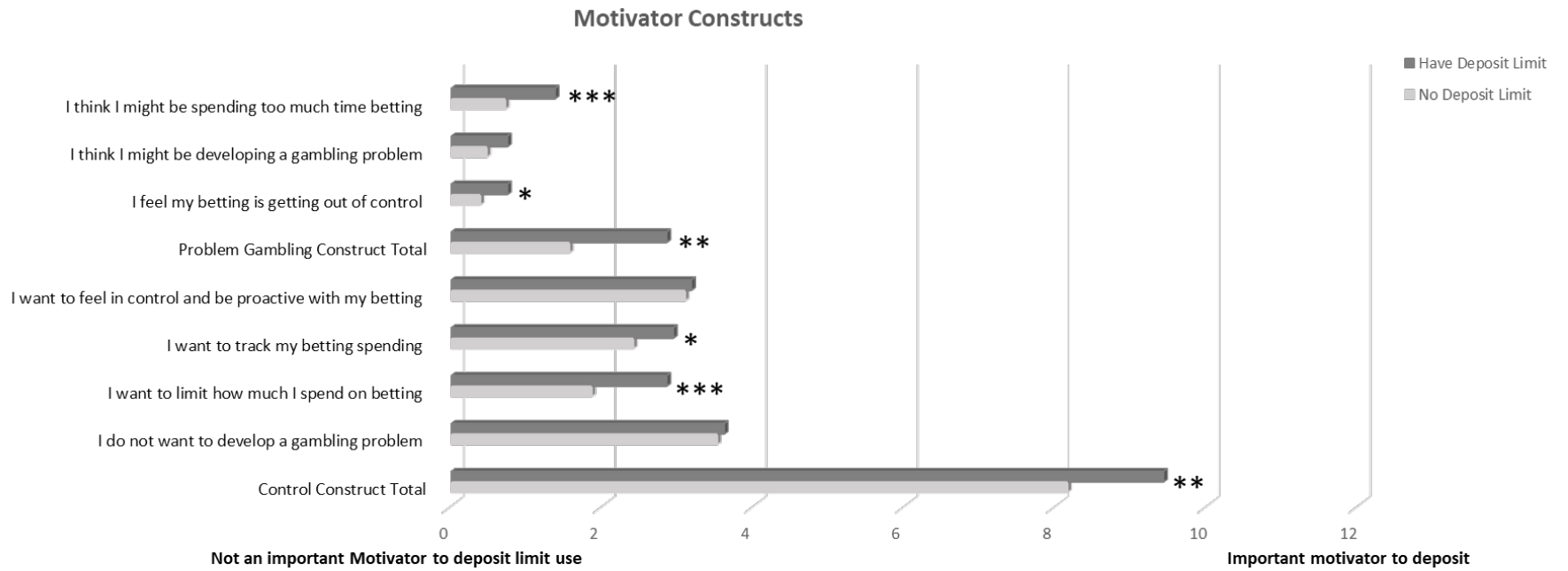
Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Motivators

Figure 2 shows the means of the total scores of importance for each motivator construct among users and non-users of deposit limits. A significant difference was found between users and non-users total scores regarding Problem Gambling Construct Total as a motivator to deposit limit use (Users: $M = 2.85$, $SD = 2.38$; Non-users: $M = 1.56$, $SD = 1.49$, $t = 2.680$, $p = .008$). Users exhibited significantly higher mean scores compared to non-users for the Control Construct Total as a motivator (Users: $M = 9.42$, $SD = 2.26$; Non-users: $M = 8.16$, $SD = 2.54$, $t = 2.965$, $p = .003$).

In the problem gambling domain, two items exhibited substantial differences. Deposit limit users consistently reported higher scores when endorsing problem gambling as a motivation than non-users ($M = 1.37$, $SD = 1.47$ vs. $M = 0.72$, $SD = 1.02$, $p < .001$ for Item 1 "*I think I might be spending too much time betting*"; and $M = 0.74$, $SD = 1.04$ vs. $M = 0.38$, $SD = 0.84$, $p = .017$ for Item 3 "*I feel my betting is getting out of control*"). Within the control domain, deposit limit users consistently reported higher scores when endorsing control as a motivation than non-users, discrepancies were evident for Item 2 "*I want to track my betting spending*" ($M = 2.93$, $SD = 1.28$ for users vs. $M = 2.40$, $SD = 1.36$ for non-users, $p = .012$) and Item 3 "*I want to limit how much I spend on betting*" ($M = 2.85$, $SD = 1.28$ for users vs. $M = 1.86$, $SD = 1.41$ for non-users, $p < .001$) (Figure 2).

Figure 2 Mean Importance Scores for Motivator Constructs for deposit limit use and non-use



Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Factors predicting deposit limit use

Demographics, Gambling Behaviour, Attitudes, and Gambling Severity

In the multivariable logistic regression analysis, several factors emerged as predictors of the current use of deposit limits among individuals engaged in online gambling activities. Being a full-time employee predicted a higher likelihood of utilising deposit limits ($p = .044$) as did older age ($B = 0.032, p = .027$), being a full-time student ($B = 1.850, p = .036$), having higher perceptions of social norms endorsing deposit limit use ($B = 0.035, p < .001$), and perceiving deposit limits as good practice ($B = 0.490, p = .006$) and more beneficial in terms of utility ($B = 0.340, p = .003$) predicted a greater likelihood of using deposit limits.

Conversely, a lower satisfaction with betting activities ($B = -0.247, p = .011$) and a lower frequency of bets within the last 12 months ($B = -0.333, p = .013$) predicted a reduced likelihood of using deposit limits. Factors including gender, income, financial well-being, satisfaction with life, number of gambling activities, number of online wagering accounts, and different categories of problem gambling severity did not significantly predict deposit limit usage (Table 3).

Table 3. Multivariable logistic regression model of Predictors of Current use of deposit

limits

Factor	B	S.E	Wald	Sig	ExpB	CI ExpB 95%	
						Lower	Upper
Age	.032	.014	4.911	.027*	1.032	1.004	1.062
Gender	-.126	.483	.068	.794	.881	.342	2.272
Employment							
Full time			11.379	.044*			
Part time/ casual	-1.377	.749	3.379	.066	.252	.058	1.095
Not currently employed	1.196	.789	2.294	.130	3.306	.704	15.536
Retired	-.831	.573	2.099	.147	.436	.142	1.341
Full time student	1.850	.883	4.395	.036*	6.361	1.128	35.874
Domestic duties	1.293	1.734	.556	.456	3.643	.122	108.937
Income	.016	.059	.075	.785	1.016	.905	1.141
Financial Well-being	.247	.272	.824	.364	1.280	.751	2.183
Satisfaction with Life	.061	.112	.295	.587	1.063	.853	1.324
Satisfaction with Betting	-.247	.098	6.424	.011*	.781	.645	.945
Frequency of bets last 12 months	-.333	.133	6.235	.013*	.717	.552	.931
Number of online wagering accounts	-.005	.085	.004	.949	.995	.842	1.174
Number of gambling activities last month	-.073	.182	.163	.686	.929	.651	1.327
Social norms of deposit limit use	.035	.010	12.964	<.001***	1.036	1.016	1.056
Usefulness of deposit limits	.100	.102	.964	.326	1.106	.905	1.351
Deposit limits are Good Practice	.490	.179	7.467	.006**	1.633	1.149	2.321
Utility of deposit limits	.340	.116	8.527	.003**	1.404	1.118	1.764
PGSI Category							
Non-problem Gambler			1.101	.777			
Low-Risk Gambler	.413	.430	.925	.336	1.512	.651	3.510
Moderate-Risk gambler	.147	.494	.088	.766	1.158	.440	3.053
Problem-Gambler	.020	.683	.001	.976	1.020	.268	3.892
Constant	-7.141	1.843	15.021	<.001***	.001		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Barrier and Motivator Total Constructs

A logistic regression analysis highlights several factors influencing the use of deposit limits.

For the total construct scores individuals who perceived higher behavioural barriers were significantly less likely to utilise deposit limits ($B = -0.208$, $p = 0.041$). Higher endorsement of the Knowledge barrier was significantly associated with decreased deposit limit utilisation ($B = -0.599$, $p < 0.001$).

Relevance ($B = -0.144$, $p = 0.130$), Stigma ($B = -0.113$, $p = 0.283$) and Privacy barriers ($B = 0.165$, $p = 0.149$), did not significantly predict deposit limit utilisation.

Problem Gambling ($B = 0.183, p = 0.071$) and Control motivators ($B = 0.155, p = 0.096$) exhibited non-significant associations with deposit limit utilisation (Table 4).

Table 4. Multivariable logistic regression model of Barriers and Motivators for Predictors of Current use of deposit limits

Factor	B	S.E	Wald	Sig	ExpB	CI ExpB 95%	
						Lower	Upper
Barrier Relevance	-.144	.095	2.298	.130	.866	.719	1.043
Barrier Stigma	-.113	.105	1.154	.283	.893	.727	1.097
Barrier Privacy	.165	.114	2.078	.149	1.179	.943	1.475
Barrier Behavioural	-.208	.102	4.178	.041*	.812	.665	.991
Barrier Knowledge	-.599	.131	21.040	<.001***	.550	.426	.710
Motivator Problem Gambling	.183	.101	3.264	.071	1.201	.985	1.464
Motivator Control	.155	.093	2.763	.096	1.168	.973	1.402
Constant	1.381	1.250	1.221	.269	3.978		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Barrier and Motivator Individual Items within Constructs

The multivariate logistic regression analysis of the individual items within each construct reveals that several items significantly influence the use of deposit limits among participants. Specifically, individuals endorsing relevance related concerns, as indicated by Relevance Item 1 (*'I can manage my betting without deposit limits'*; $B = -0.944, p = 0.017$), greater endorsement of stigma-related concerns, represented by Stigma Item 3 (*'I think that only people with gambling problems need to use deposit limits'*; $B = -0.475, p = 0.042$), higher levels of behavioural barriers, as captured by Behavioural Barrier Item 2 (*'I do not want to limit how much I can deposit'*; $B = -0.986, p = 0.003$), and greater endorsement of knowledge-related concerns, represented by Knowledge Barrier Item 1 (*'I do not know what limit I would set'*; $B = -0.664, p = 0.027$) and Item 3 (*'I use or would rather use other strategies to control my gambling'*; $B = -0.862, p < 0.001$), were significantly less likely to use deposit limits.

Participants endorsing problem gambling motivations, as captured by Problem Gambling Motivator Item 1 (*'I think I might be spending too much time betting'*; B = 1.082, p = 0.021), and control-related motivations, reflected by Control Motivator Item 2 (*'I want to track my betting spending'*; B = 0.674, p = 0.028), were significantly more likely to use deposit limits (Table 5).

Table 5. Multivariable logistic regression model of individual item Barriers and Motivators for Predictors of Current use of deposit limits

Factor	B	S.E	Wald	Sig	ExpB	CI ExpB 95%	
						Lower	Upper
Barrier Relevance 1	-.944	.396	5.683	.017*	.389	.179	.846
Barrier Relevance 2	.651	.381	2.924	.087	1.917	.909	4.043
Barrier Relevance 3	.536	.348	2.377	.123	1.710	.865	3.380
Barrier Stigma 1	-.160	.426	.141	.707	.852	.369	1.964
Barrier Stigma 2	.485	.495	.963	.327	1.624	.616	4.282
Barrier Stigma 3	-.475	.233	4.144	.042*	.622	.394	.982
Barrier Privacy 1	.501	.597	.705	.401	1.650	.512	5.313
Barrier Privacy 2	-.492	.344	2.043	.153	.611	.311	1.200
Barrier Privacy 3	.242	.308	.620	.431	1.274	.697	2.328
Barrier Behavioural 1	.549	.322	2.909	.088	1.732	.921	3.256
Barrier Behavioural 2	-.986	.336	8.619	.003**	.373	.193	.721
Barrier Behavioural 3	-.285	.264	1.169	.280	.752	.449	1.261
Barrier Knowledge 1	-.664	.301	4.865	.027*	.515	.285	.929
Barrier Knowledge 2	.025	.367	.005	.946	1.025	.499	2.105
Barrier Knowledge 3	-.862	.251	11.752	<.001***	.422	.258	.691
Motivator Problem Gambling 1	1.082	.468	5.338	.021*	2.951	1.178	7.389
Motivator Problem Gambling 2	-.718	.637	1.270	.260	.488	.140	1.700
Motivator Problem Gambling 3	.205	.561	.134	.714	1.228	.409	3.688
Motivator Control 1	-.130	.333	.152	.697	.879	.458	1.686
Motivator Control 2	.674	.307	4.810	.028*	1.962	1.074	3.583
Motivator Control 3	.037	.288	.016	.898	1.037	.590	1.824
Motivator Control 4	.016	.298	.003	.958	1.016	.567	1.820
Constant	.887	1.645	.291	.590	2.428		

Note: *p<.05, **p<.01, ***p<.001

Discussion

This study undertook an investigation into the utilisation of deposit limits among online wagering customers, aiming to elucidate the motivators and barriers influencing their adoption. The current study used the Theory of Planned Behaviour (TPB) (Fishbein and Ajzen 2009) to provide a theoretical framework to explain why certain groups may be more or less likely to use deposit limits. Further, this study tested the validity of proposed barrier and motivator construct underpinned by the TPB theoretical framework. Similarly to previous findings in Australian and international online gambling samples a relatively low uptake of deposit limits among surveyed was reported, with the majority not using deposit limits (Auer, Hopfgartner, and Griffiths 2020; Ivanova, Magnusson, and Carlbring 2019; Heirene, Vanichkina, and Gainsbury 2021; Procter et al. 2019). Despite the low uptake, participants held generally positive attitudes towards deposit limits, which were perceived as useful and good practice. This discrepancy between positive attitudes and low utilisation rates underscores the complexity of factors influencing individuals' engagement with such harm-minimisation tools, highlighting the importance of this study.

When considering the profile of the customers and their attitudes associated with utilisation of deposit limits, the results suggested that, when controlling for other variables, increasing age predicted an increase in use of deposit limits.

This observed trend appears to contradict previous findings that older gamblers more negatively judged the need for, and the effectiveness of interventions for gambling problems than younger gamblers (Rockloff and Schofield 2004). As older adults are potentially vulnerable to gambling-related issues due to factors such as fixed incomes, declining health, cognitive changes, and social isolation (Guillou Landreat et al. 2019), a potential reason for older adults' increased use of deposit limits in gambling could be their accumulated

knowledge and experience regarding gambling risks, motivating proactive harm reduction strategies. However, it is important to note that the low response rate in the present study limits the extent to which these findings can be confidently extrapolated to the broader population of interest. Further research with larger, more representative samples would be necessary to substantiate these preliminary observations and to draw more definitive conclusions about age-related differences in the use of deposit limits and attitudes towards online gambling interventions.

Our findings aligns with previous research showing that gambling customers hold positive views towards consumer protection tools (Gainsbury, Parke, and Suhonen 2013; Griffiths, Wood, and Parke 2009; Ivanova et al. 2019). Attitudes toward deposit limits were a significant predictor of deposit limit use, with positive attitudes associated with a higher likelihood of adoption. This supports the TPB which suggests that individuals are more likely to engage in a behaviour if they perceive it positively. This strengthened applicability of TPB in the context of online gambling harm-minimisation strategies highlights the role of individual beliefs and evaluations in shaping behavioural intentions. Further messaging could aim to encourage not only positive attitudes towards deposit limits, but increase perceived personal relevance.

A novel finding was that subjective norms regarding deposit limit use was related to deposit limit adoption. Participants who perceived higher social norms toward the use of deposit limit use were more likely to utilise this harm-minimisation tool. This finding supports the TPB notion that social influences can impact behavioural intentions and underscores the importance of promoting normative beliefs in shaping individuals' decisions to adopt deposit limits. Behavioural economists suggested that emphasizing and leveraging social norms is key to drive behavioural change (Gainsbury, Tobias-Webb, and Slonim 2018). Promoting the broadly held positive attitudes towards responsible gambling tools holds the potential to

normalise their use among all online wagering customers, fostering greater normative adoption with a reinforcing impact.

Our study discerned a spectrum of motivators and barriers through our development of specific constructs underpinning deposit limit utilisation. Deposit limit users were motivated by concerns pertaining to mitigating problem gambling risks by exerting greater control over their wagering and spend. As problem gambling severity scores and gambling behaviour was unrelated to deposit limit use, this reflects the previously reported perception that deposit limits are intended for people with potential gambling problems (Gainsbury et al., 2020) and to proactively prevent gambling problems and unintended gambling spend. Given that both deposit and non-deposit users held similar attitudes towards wanting to be in control and proactive of their betting and not wanting to develop a gambling problem, the results highlight the clear role of barriers preventing use. The most apparent barriers to use related to not perceiving deposit limits as relevant due to not wanting to change betting, that individuals did not have problems with their betting, and the perception that deposit limits were not needed to manage one's gambling. Additionally reported barriers were similar and related to seeing deposit limits as intended for people with gambling problems, not wanting to have constraints on one's gambling, and preferring to use other strategies.

Addressing the misconception that consumer protection tools are solely for those with gambling problems appears to be crucial to encourage their uptake among a broader spectrum of online wagering customers. Promotional strategies could focus on the broader intended audience and the role of deposit limits to empower customers to maintain control over their gambling as a benefit rather than a way to avoid problems. Greater efforts are needed to increase the perception of deposit limits as being relevant for proactively managing gambling. Considerations should be given to whether deposit limits could be offered with additional levels of flexibility, such as temporary pauses, which would overcome the barrier

of not wanting to be limited. Although this would reduce the effectiveness of limits for people who do have problems controlling their gambling, it may enhance uptake more broadly and would still have benefits by introducing friction into gambling more than previously intended. As deposit limits are not intended as a strategy for people with gambling problems (who would typically benefit from a more rigorous self-exclusion, changes to increase uptake may be beneficial.

The study showed low levels of stigma towards using deposit limits and concerns about privacy, indicating that participants were not concerned about how their use of these would impact them more broadly. Few participants reported knowing how to set a limit as a barrier; however, not knowing what limit to set was a significant barrier to use. This is unsurprising given the complexity of this behaviour. Calculating an affordable amount to gamble requires consideration of disposable income and many other variables. Unlike alcohol, there are no clear guidelines on what an 'affordable' or 'responsible' amount to wager is. Developing frameworks such as the lower-risk gambling guidelines (Young et al. 2024) may be helpful, although more work is needed to develop reliable limits based on accurate data and to test the impact of these in assisting gambling customers to set their own gambling budgets. Other behavioural science-based principles might be used to assist with budget setting such as using self-referential feedback of net outcomes (lifetime) and forward projections of spend to help customers reflect on the affordability of their limits. Updating activity statements to highlight personally salient information and contain direct links to set deposit limits with recommended limits to set based on past spend may overcome barriers to use.

Future Research Directions

To advance our understanding of deposit limit adoption, future studies should focus on uncovering the specific variables and conditions within positive attitudes and social norms

that causally contribute to the uptake of precommitment tools. Researchers should investigate:

- The differentiating factors between individuals with positive attitudes and high social norms who choose to use deposit limits versus those who do not.
- The variables and conditions that distinguish individuals with gambling problems who elect to use precommitment tools compared to those who do not.
- The factors that enable individuals with gambling problems, who by definition have difficulty controlling their behaviour, to decide to use deposit limits to regain control.

These research directions could provide valuable insights into the complex decision-making processes involved in adopting harm-minimisation tools. Understanding these nuances could inform more targeted and effective interventions, potentially increasing the uptake of deposit limits among online wagering customers.

Additionally, future research should explore how to effectively promote the broadly held positive attitudes towards responsible gambling tools to normalise their use among all online wagering customers. This approach could foster greater normative adoption with a reinforcing impact, potentially leading to more widespread use of deposit limits and other harm-minimisation strategies.

Strengths and Limitations

Our study had a number of strengths. It employs well-established and validated measures, and efforts to minimize social desirability bias within the survey design, such as employing neutrally worded questions and ensuring participant anonymity, are commendable (Larson 2018). Next, the use of a sample consisting of actual online wagers from Australia enhances the ecological validity of the findings. Secondly, Lastly, the utilisation of the Theory of Planned Behaviour (TPB) (Ajzen 1991) for behaviour analysis is supported by empirical

validation, enhancing the credibility of the study's framework for examining behaviour change.

While the study possesses notable strengths, it also contends with several limitations warranting consideration. The observed low response rate to operator emails suggests that the participant pool may not accurately represent all Australian online wagerers, a common challenge in email-based surveys (Fernandez 2019). We could not determine reasons why participants did or did not participate or assess nonresponse bias as no data was collected from those that did not provide informed consent. The reasons might have been the sensitive nature of the questions or the distrust in confidentiality as the email invitation email was sent by the online wagering organisation. No incentive was offered for participation given the potential ethical issues related to using a prize draw to motivate participation in a sample of people who regularly gamble.

Moreover, relying on self-reported data introduces potential biases such as self-selection bias (Stone et al. 2023) potentially impacting the data's validity and reliability. Nevertheless, how people feel and perceive reality has been shown to be more relevant than objective measures (Glozier 2010). Although efforts were made to mitigate these biases by ensuring participant anonymity, the sample's generalisability may still be compromised by its lack of diversity, predominantly consisting of English-speaking male participants.

Conclusions

This study investigated the adoption of deposit limits among online wagering customers using the Theory of Planned Behavior (TPB) and novel constructs to assess barriers and motivators to use. The results showed that positive attitudes towards deposit limits are insufficient to motivate use, however, attitudes and subjective norms significantly influenced adoption, suggesting the importance of positive perceptions and social influences. Addressing

perceived barriers including the perception that deposit limits are not needed or would be overly constrictive and enhancing behavioural control are crucial for increasing uptake and fostering responsible gambling behaviours among a broader spectrum of online wagering customers. Results showed that positive attitudes and perceptions of social norms was related to deposit limit use and that not knowing what limit to set was a significant barrier to use, thus supporting the TPB as a relevant framework. By demonstrating the relevance of TPB within the constructs in predicting deposit limit adoption, this study provides empirical support for the theoretical framework and underscores its utility in understanding and addressing gambling behaviours. By validating constructs and identifying their significance in predicting deposit limit adoption, this study contributes to both theoretical knowledge and practical interventions aimed at reducing gambling-related harm. Moving forward, researchers and practitioners can leverage these insights to develop targeted interventions and policies that promote responsible gambling behaviours such as deposit limit use.

Informed Consent

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (5). Informed consent was obtained from all participants for being included in the study. Ethics approval was provided by the University of Sydney Human Research Ethics Committee (2018-400).

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Supplementary Table 1 Eigenvalues and Variance Accounted for Each Item within Each Construct Group

Construct Item	Eigenvalue	% of Variance	Extraction component
Relevance			
I can manage my betting without deposit limits	1.68	56.11	.79
I do not have any problems with my betting	.78	25.82	.80
I do not want to change my betting	.54	18.07	.65
Stigma			
Using a deposit limit would make me feel weak	1.56	51.88	.82
I am concerned with what others might think of me if I set a deposit limit	.87	29.10	.75
I think that only people with gambling problems need to use deposit limits	.57	19.02	.57
Privacy			
I am concerned about who may see I have set a deposit	1.56	51.91	.73
I do not trust that this information will be secure	.76	25.29	.69
I do not want my betting operator to see I have set a limit	.68	22.80	.74
Knowledge			
I do not know what limit I would set	1.28	42.58	.78
I do not know how to set a deposit limit	.98	32.50	.36
I use or would rather use other strategies to control	.75	24.92	.74
Behavioural			
I am worried I may change my mind about how much I want to deposit	1.39	46.19	.80
I do not want to limit how much I can deposit	.96	31.87	.40
There are occasions I want to spend more than I previously intended	.66	21.94	.77
Problem Gambling			
I think I might be spending too much time betting	1.43	47.60	.89
I think I might be developing a gambling problem	.83	27.53	.92
I feel my betting is getting out of control	.75	24.87	.89
Control			

I want to feel in control and be proactive with my betting	1.83	45.79	.66
I want to track my betting spending	.85	21.21	.77
I want to limit how much I spend on betting	.72	18.00	.62
I do not want to develop a gambling problem	.60	14.99	.65

Supplementary Table 2 Correlations of all variables and multicollinearity

Correlations	Current use of deposit limit	Barrier Relevance	Barrier Stigma	Barrier Privacy	Barrier Behavioural	Barrier Knowledge	Motivator Problem Gambling
Barrier Relevance	.366**						
Barrier Stigma	.178*	-.170					
Barrier Privacy	-0.002	-0.06	.288**				
Barrier Behavioural	.194*	-0.049	0.099	.218**			
Barrier Knowledge	.483**	.279**	.256**	.199*	.246**		
Motivator Problem Gambling	-.206**	-.561**	0.049	.189*	.339**	-0.015	
Motivator Control	-.227**	-.181*	-0.066	0.043	-0.093	-0.054	.197*