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Assessing the bets advertised on Twitter by gambling operators and gambling affiliates – an observational study incorporating simulation data to measure bet success

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ABSTRACT

This study assessed bets advertised on Twitter by betting operators and affiliates, as well as their success. Bets advertised by 10 Twitter accounts were tracked over two weeks. Information recorded included: bet odds, bet type, number of times advertised, and bet success. The success of bets was calculated based upon placing equal stakes on each bet and running four sets of 10,000 simulations, each of an increasing number of randomly chosen bets with fixed bet stake per bet from those recorded. Both operators and affiliates advertised around 140 bets per day at average decimal odds of 6.0, however affiliates posted each bet three-times more than operators. Only one-in-five bets advertised won. Affiliate bets led to a 12% loss of original stakes, whilst operator bets led to a 20% loss. Only 30% of 10,000 simulations of 14 randomly chosen bets led to profit, decreasing to 19% when the number of bets included in the simulation increased to 140. Findings raise concerns about the volume of bets advertised on social media with large expected losses. Simulation data demonstrates how the chance of making a profit decreases the more advertised bets are bet upon. Future research should explore bettors' responses to such marketing.

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Gambling; social media; marketing; gambling affiliates; advertising

Introduction

There is a growing consensus within academic literature of gambling being a public health issue (Gambling Commission, 2018; Wardle et al., 2018), resulting in estimated costs between £260 million and £1.16 billion per year in Great Britain ((2016)). Gambling-related harms negatively impact upon gamblers across the spectrum of disordered and at-risk gambling (Browne et al., 2017), as well as impacted others such as family members of disordered gamblers (Goodwin et al., 2017). Harms arising from gambling range across multiple dimensions, including; financial harms, relationship issues, emotional distress, health problems, cultural harms, work issues and criminal activity (Langham et al., 2016). Given the nature and scale of issues caused by gambling, research has sought to investigate factors that may contribute toward harm by encouraging riskier gambling behaviors. A recent meta-analysis highlighted gambling marketing as one such factor (Killick & Griffiths, 2022), with advertising

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exposure being related to more positive gambling attitudes, greater gambling intentions and riskier gambling behavior. Consequently, it is important for research to explore the types of marketing used by the gambling industry to identify elements that may encourage riskier behaviors.

One type of marketing that has received increasing focus in recent times is social media marketing, with a study employing big data analytics highlighting that the five largest gambling operators in Great Britain sent over 19,000 tweets in 8 months to their 620,000 followers in the UK (Rossi et al., 2021). Given how prevalent gambling marketing is on social media, a recent systematic review aimed to explore how social media has been researched within academic literature (James & Bradley, 2021). It was highlighted that existing literature covers three domains; social media used to advertise gambling, social media used as a support mechanism for gambling and social media as a measure of public opinion on sporting events which are available to bet upon. There is a growing evidence base, both internationally (Gainsbury et al., 2016) and in the UK (Houghton et al., 2019; Killick & Griffiths, 2019), of the types of content included within social media marketing of gambling operators. Such studies highlight that operators post a large frequency of sporting news, humor, and direct advertising. Researchers have also highlighted gambling affiliation, a process whereby a company or individual is financially incentivized to advertise on behalf of the gambling industry, as a potentially dangerous practice (Houghton et al., 2019, 2020). Concerns around gambling affiliation are centered around affiliates presenting themselves as gambling tipsters or betting communities, whilst not making their relationship with the gambling industopery clear. Therefore, it may not be clear to the consumer that affiliates actually receive a fee for getting them to sign up to a gambling operator or get a percentage of their lifetime losses (Houghton et al., 2020). There is also emerging evidence that bettors may place increased confidence in certain types of bets advertised by affiliates (Houghton & Moss, 2020). However, whilst research has explored the types of content posted by gambling operators on social media, there has been limited research on the bets advertised on social media.

Whilst little is known in relation to the types of bets advertised on social media, research has investigated the types of bets advertised on British television and in bookmaker shop windows. One study explored odds displayed on screen during advertisements where individuals were placing bets, finding an average stake of £10 being placed within the bets and median odds of 4.40 (Lopez-Gonzalez et al., 2017). Additionally, Newall (2015) carried out an observational study of shop window and television advertised bets during the 2014 football World Cup and found that the majority of advertised bets focused upon complex gambles. Within the paper, the author explains how more complex gambles lead to larger expected losses for bettors due a larger 'overround' within the markets for complex bets. An overround within sports betting refers to the extent to which the sum of bookmaker's odds for mutually exclusive events exceeds 1. Whilst there are only three possible outcomes when betting on the outcome of a football match, the number of possible outcomes for a first goalscorer bet is far greater. As a result, the increased number of potential outcomes tends to lead to an increased overround and subsequently, larger expected losses. Additionally, it was argued that advertised bets take advantage of the biases termed the representativeness heuristic whereby individuals make overestimations on the probability of complex events due to them appearing more representative. For example, bookmakers would often advertise the favorite team winning by a large amount or a star player being the first goalscorer.

Further research exploring television advertising during the subsequent World Cup in 2018 found a similar pattern of adverts consisting of mostly complex bets (Newall et al., 2019). In fact, complex bets were advertised more frequently during the 2018 World Cup in comparison to the 2014 World Cup. Bets which required a combination of more than one selection (for example, two different players to score) were featured in 34.8% of 2018 World Cup advertising compared to just 4% of advertising in 2014, with the frequency of simple bets on teams to win dropping from 7% in 2014 to 0% in 2018. Additionally, it was observed that around a quarter of advertised bets were shown to have increased odds and 40% of bets had the potential for the outcome of the bet to be decided before the end of the match. This highlights both the use of incentives to increase perceived value of bets and the use of bets with quicker outcomes to encourage a higher frequency of betting.

A further study exploring television advertising during English Premier League football matches in January and February 2016 found that mean decimal odds of advertised bets was just under 7.5 (Newall, 2017). Additionally, over 50% of advertised bets required bettors to make a prediction on a specific goalscorer. Building upon this, the authors conducted multiple experimental studies exploring bettors understanding of the implied probability of different types of events within a football match. Whilst bettors had a good understanding of implied probabilities of simplistic bets, they consistently overestimated the likelihood of more complex events. Since bettors have a poor understanding of the likelihood of complex events, this furthers the argument that advertising complex bets may lead to larger and more consistent losses, as compared to more simple bets.

The current study aims to develop an understanding of the frequency and types of bets advertised by British gambling operators and gambling affiliates on social media. This will build upon previous literature that has highlighted that British television advertising focuses upon advertising complex bets which bettors struggle to accurately judge the probability of and that lead to larger expected losses (Newall, 2015, 2017; Newall et al., 2019). In addition, the study also aims to assess how successful these bets are and how likely it is that a bettor would make a profit or loss based upon betting on advertised bets.

Method

Sampling procedure

In building upon the findings of a previous study that explored the types of content posted on social media by British gambling operators (Houghton et al., 2019), the decision was made to investigate bets advertised by the same 10 accounts that were included within that study. This decision was taken as these accounts represented the five operators (SkyBet, PaddyPower, Bet365, Coral, William Hill) and five affiliates (FootyAccumulators, FootySuperTips, TheWinnersEnclosure, MyRacingTips and LiveFootball) with the highest reach on Twitter. It was then confirmed that all accounts were still active, which was determined by whether they had posted at least once within the previous week. One of the affiliate accounts had been rebranded from LiveFootball to FootballTips. The number of followers of the five operator accounts range from 219,800

(William Hill) to 650,600 (PaddyPower), whilst affiliate followers ranged from 201,300 (FootballTips) to 603,100 (FootyAccumulators).

For a two-week period between the 16th and 28th of September in 2019, the lead researcher manually tracked each of the 10 Twitter accounts and made a record of every bet that was advertised on these accounts. For each bet that was advertised, the following information was recorded: what the advertised bet was, the date in which the bet was first advertised, the type of bet which was advertised, the decimal odds of the bet, how many times the bet was advertised, whether a betting inducement accompanied the bet, whether the bet won and whether any comment was made on the account about the success of the bet. Each account was checked four times daily to make the observations, with the timestamps of the tweets used to ensure that no post made was observed more than once. All bets which were referenced within a tweet were included within the study, therefore an individual tweet could have included multiple advertised bets. Advertised bets were either included in the text of the tweet, within an accompanying image or on a webpage accessed through a hyperlink in the tweet.

Analysis procedure

Observational data collected on the bets advertised was used to calculate a range of descriptive statistics on each data category for each individual account and subsequently for the two account types (operator and affiliate). Descriptive statistics calculated on advertised bets were: total number of bets advertised, the mean number of bets advertised by days, the mean number of times each bet was advertised, median odds of advertised bets, percentage of advertised bets which were price boosted and the percentage of bets advertised by different bet types. Median odds were presented to represent average odds due to the presence of extreme outliers which greatly increased the mean odds of advertised bets. Success of advertised bets was then measured by calculating the percentage of bets which won and by calculating the percentage of original stakes lost if an individual were to bet on each advertised bet with an equal stake. The median decimal odds of winning and losing bets were then calculated. Percentages of winning and losing bets the accounts were also determined as a measure of how honest the accounts were about the success of their advertised bets.

Mann-Whitney U tests were run to assess differences between account types on bets advertised per day, how often bets are advertised and bet odds. A further Mann-Whitney U test was run in order to assess whether there was a significant difference between odds of winning and losing advertised bets. Chi-squared tests of independence were run to assess whether there was a significant relationship between account type and the following variables: percentage of advertised bets which were price boosted, type of bet, percentage of bets won and percentage of original stakes lost. Inspections of standardized residuals were then made to assess for differences on each of the variables between the operator and affiliate accounts.

Finally, given that it is implausible any individual bettor would bet on every single advertised bet over the two-week period, a serious of simulations were run through the statistical programming software R (RStudio Team, 2020) to assess returns for randomly

chosen samples of advertised bets, based upon betting even stakes on each bet. Three sets of 10,000 simulations of 14 randomly chosen bets were run initially – one for operator advertised bets, one for affiliate advertised bets and one for a combination of both. Each of the simulations were ran independently of one another. This process was then repeated three times for 28, 70, and 140 randomly chosen bets. These numbers were chosen to reflect an average of one, two, five, and ten bets per day. Information recorded on the simulations included the percentage of the 10,000 simulations that made profit, the median returns from the number of bets chosen within the simulation (e.g. for simulations of 14 randomly selected bets, this would be the median returns from 14 units staked evenly across bets) and the mean percentage losses across simulations.

Results

Bets advertised

As demonstrated in Table 1, both operators and affiliates advertised a large quantity of bets throughout the two-week period in which the social media accounts were observed. Whilst there was little difference between the number of unique bets advertised each day by operators and affiliates, around 139 for each, affiliates (Mdn = 2) did post their advertised bets more frequently than gambling operators (Mdn = 1), U = 892,303.50, p < 0.01. There was no significant difference between the decimal odds of advertised bets between operators (Mdn = 6) and affiliates (Mdn = 5.67), U = 1,846,720.50, p = 0.182. However, examination of standardized residuals within a significant Chi squared test of independence between account type and use of betting incentives [$\chi 2$ (1) = 150.389, p < 0.001] highlighted that there was a significantly higher frequency of bets being price boosted by operators (12.31%) compared to affiliates (1.42%).

The three main types of bets advertised by operators and affiliates were single bets, multiple bets where 2 or more selections are combined across multiple events and single game multibets where 2 or more selections are combined within a single event. The frequency of each type of bet is shown in Table 2. A Chi squared test of independence demonstrated a significant association between account type and types

Account	Total Bets Advertised	Bets Advertised per Day	Mean Number of Times Each Bet is Advertised	Median Odds of Advertised Bets	Percentage of Advertised Bets Price Boosted
SkyBet	72	5.14	1.10	11.00	26.39
PaddyPower	1076	76.86	1.40	6.00	8.94
Bet365	315	22.50	1.02	6.00	0
Coral	392	28.00	1.26	4.33	21.94
WilliamHill	95	6.79	1.01	11.00	38.95
Operator	1950	139.29	1.28	6.00	12.31
FootyAccumulators	99	7.07	3.10	8.00	30.30
FootySuperTips	690	49.29	2.31	4.84	0
TheWinnersEnclosure	361	25.79	6.73	5.00	2.22
MyRacingTips	679	48.50	2.10	6.00	0
FootballTips	126	9.00	3.22	6.05	3.17
Affiliates	1955	139.64	3.15	5.70	1.42

Table 1. Advertised bet frequency, median odds of advertised bets and percentage of advertised bets which are price boosted for each operator and affiliate account.

Account	Single	Multiple	Single Game Multibet
SkyBet	51.39	36.11	12.50
PaddyPower	86.06	5.39	8.55
Bet365	84.44	0.32	15.24
Coral	92.86	0.26	6.89
WilliamHill	62.11	3.16	34.74
Operator	84.72	4.56	10.72
FootyAccumulators	5.05	58.59	36.36
FootySuperTips	76.74	19.91	3.34
TheWinnersEnclosure	86.98	10.80	2.22
MyRacingTips	81.54	16.86	1.62
FootballTips	33.33	53.97	12.70
Affiliates	73.90	21.30	4.79

 Table 2. Percentage of single, multiple, and single game multibets advertised per operator and affiliate account.

of bets advertised, χ^2 (2) = 276.925, p < 0.001. Single bets were the most advertised bet type for both operators and affiliates, however inspection of standardized residuals showed that operators posted a higher frequency of single bets and single game multibets whereas affiliates posted a higher frequency of multiple bets.

Bet success

The success of advertised bets was observed for 2 weeks after data collection had been completed and is shown in Table 3. Bets which had a winning or losing outcome were noted as such, whereas bets which did not yet have an outcome were not included in the calculations for bet success. A Chi squared test of independence revealed no association between account type and bet success $\chi^2(1) = 0.489$, p = 0.484, with just under one in five resulted bets being winners regardless of account types. However, it was calculated that operator advertised bets would lead to a larger percentage loss of original stakes (20.46%) based upon betting the same amount on each advertised bet than affiliate advertised bets (12.52%). It was also found that, as expected, winning advertised bets across both account types had significantly lower odds (Mdn = 2.63) on average than advertised bets which

account.						
Account	Percentage of Advertised Bets which Won	Percentage of Original Stake Lost	Median Odds of Winning Bets	Median Odds of Losing Bets	Percentage of Winning Bets where Outcome was Discussed	Percentage of Losing Bets where Outcome was Discussed
SkyBet	11.72	55.88	3.75	11.13	100	0
PaddyPower	20.16	16.77	2.50	7.00	0	0
Bet365	21.09	11.69	3.55	7.50	0	0
Coral	23.20	16.77	3.10	4.90	1.35	0
WilliamHill	2.47	90.31	3.92	11.00	0	0
Operator	19.85	20.46	2.63	7.00	1.58	0
FootyAccumulators	10.31	44.10	3.60	10.00	40.00	0
FootySuperTips	22.59	22.86	2.00	7.50	12.50	0.19
TheWinnersEnclosure	23.32	7.24	2.75	6.00	61.25	3.42
MyRacingTips	17.58	13.64	3.00	7.00	42.61	3.15
FootballTips	23.20	-59.05	3.75	7.25	41.38	0
Affiliates	20.40	12.52	2.63	7.00	21.76	1.79

Table 3. Information on success of advertised bets and the frequency of commenting upon bet success after the bet had been advertised for each gambling operator and gambling affiliate Twitter account.

Table 4. Percentage of simulations resulting in profit, median returns from a one-unit stake and mean percentage losses within 10,000 simulations of 14, 28, 70, and 140 randomly selected bets from operator, affiliate, and both account types.

	Operators	Affiliates	Overall
10,000 simulations of 14 randomly selected bets			
% of simulations which made profit	25.17	32.89	29.51
Median returns from a 1 unit stake on each selected bet (14 units staked total)	8.49	10.02	9.20
Mean Percentage Losses	23.57	12.58	18.04
10,000 simulations of 28 randomly selected bets			
% of simulations which made profit	23.64	31.25	28.41
Median returns from a 1 unit stake on each selected bet (28 units staked total)	18.73	21.56	20.30
Mean Percentage Losses	23.29	14.39	17.82
10,000 simulations of 70 randomly selected bets			
% of simulations which made profit	19.44	28.75	23.88
Median returns from a 1 unit stake on each selected bet (70 units staked total)	50.76	57.53	54.58
Mean Percentage Losses	22.73	13.69	17.92
10,000 simulations of 140 randomly selected bets			
% of simulations which made profit	13.88	24.62	18.82
Median returns from a 1 unit stake on each selected bet (140 units staked total)	104.41	118.40	111.54
Mean Percentage Losses	22.85	13.48	17.96

lost (Mdn = 7.00), U = 472,805.50, p < 0.01. Affiliate accounts posted updates on the success of their bets at a rate of just over one in five winning bets and just under two in every hundred losing bets. Operators rarely commented upon the success of the bets that they advertised, updating their followers on the success of under two in one hundred winning bets and none of their losing bets.

Simulation

As seen in Table 4, findings revealed that both types of accounts showed a low chance of making profit from advertised bets when choosing bets at random. A higher percentage of simulations upon affiliate advertised bets resulted in profit compared to operator advertised bets, regardless of bet frequency. However, it was observed that as the number of bets included within the simulations increased, the percentage of simulations which resulted in profit decreased, highlighting the fact that it appears harder to make profit from betting on advertised bets the more frequently you bet upon them. An important point of consideration here is that the number of simulations that result in profit would continue to fall as the number of bets chosen within the simulations increased, and at the point every chosen bet was included within the simulation, none of the simulations would result in a profit. This is due to the previously discussed fact that both operator and affiliate advertised bets led to an overall loss of between 12% and 20% of original stakes. However, if the simulations only included 1 chosen bet, around 20% of the simulations would result in a profit as this was the number of bets that won. Average percentage losses of original stakes remained relatively consistent as the number of bets within the simulations increased, however this would still lead to a larger financial loss due to the higher total stakes involved as bet frequency increases.

Discussion

Summary of findings

The current study aimed to investigate the frequency and types of bets advertised by British sports betting operators and affiliates on social media. It was found that betting operators and affiliates advertised a large volume of bets each day, with no difference between the number of bets advertised between the two types of accounts. However, affiliates did post their advertised bets more frequently than operators. Observed odds were similar across both accounts and price boosts were the most used incentive. Operators posted a higher frequency of single bets and single game multi-bets, whereas affiliates posted a higher frequency of multiple bets.

The current study also aimed to assess how successful these bets were and how likely it is that a bettor would make a profit or loss based upon betting on advertised bets. Findings highlight a low frequency of winning bets across both types of accounts, with affiliate advertised bets only slightly outperforming operator advertised bets. The simulation data then further supported these findings, with both account types leading to consistent losses. Operator advertised bets led to larger losses than affiliate advertised bets and the likelihood of making a profit within the simulations decreased as the number of bets within the simulation increased, highlighting the increased difficulty of making a profit from betting on advertised bets as the frequency of bets made increases.

Contribution to literature and policy implications

The large frequency of bets advertised by both operators and affiliates fits in line with the large number of posts made for direct advertising purposes within previous research (Houghton et al., 2019). However, the current study expands on this by highlighting that the reason for a higher frequency of posts for the purpose of direct advertising by affiliates within the previous study is due to affiliates advertising each suggested bet more commonly, as opposed to advertising a larger quantity of bets. Given the lack of clarity discussed previously over the affiliates' financial relationship with the betting industry, this large volume of advertised bets may promote impulsive betting due to the presentation of affiliate accounts as betting experts. This may specifically be problematic for individuals within at-risk populations, given that research has highlighted such populations report higher levels of impulsiveness (Russell et al., 2018). This is particularly concerning given research suggesting bettors may place increased confidence in certain types of bets advertised by gambling affiliates (Houghton & Moss, 2020). It also presents a further risk for those under the legal age to gamble as the previous study showed there were no age barriers on affiliate accounts, therefore allowing children to be exposed to such advertising on social media. Given the evidence that exposure to gambling marketing normalizes gambling amongst underage populations (Nyemcsok et al., 2018; Pitt et al., 2017), this suggests a need for a review around the regulations of affiliate marketing on social media to protect at-risk populations.

The average decimal odds of advertised bets on social media was slightly lower at 6.0 compared to the average odds of television adverts at around 7.5 identified in previous research (Newall, 2017; Newall et al., 2019). One potential explanation for this is the fact that the larger quantity of advertised bets on social media allows a wider variety of bets to

be advertised compared to television adverts. Alternatively, it may be the case that the higher Regardless, the average odds of bets on social media are still high at 6.0. Bets with odds of 6.0 give an implied probability of winning of just 16.66%, assuming no operator profit margin. As such, betting on advertised bets is likely to require bettors to bet a higher amount of money on average before seeing any returns. Such an increased volatility also places more gamblers into a losing position, with fewer gamblers profiting from betting (Rockloff et al., 2019). This further portrays social media marketing as a risk factor within gambling due to the advertising of a high quantity of bets which could therefore result in more bettors losing money over time.

The finding that price boosted bets were the most common inducement included within bets advertised on social media aligns with research on television advertising during the 2018 World Cup (Newall et al., 2019). Whilst the rate of price boosted bets in the current study for operators was lower at around one in ten bets compared to one in four bets in television adverts, this again is likely due to the increased frequency of social media advertising. This allows operators to advertise a larger variety of bets whilst television adverts are more likely to focus on advertising special offers. However, given the frequency of posting by operators there was still an average of around 14 price boosted bets per day across the 5 operators within the study. This is concerning given that experimental research has highlighted that increased odds was the most popular inducement within a sample of sports bettors (Rockloff et al., 2019). Additionally, the study highlighted that the inclusion of an inducement encouraged bettors to choose riskier bets and that results were consistent regardless of the risk level of an individual's betting behavior. The minimal advertising of incentivized bets by gambling affiliates can be explained by the fact affiliates tended to post highly attractive sign-up offers but these were mostly advertised separately from specific bets and therefore were not tracked within the study. Affiliates also are not able to boost their own suggested bets, given that they are only advertising on behalf of the operators. This difference in strategy in use of incentives suggests incentives are mainly used by affiliates to attempt to get individuals to sign-up to betting companies whereas operators use incentives to present their bets as being of increased value to existing customers.

The study found that single bets were the most advertised bets for both operators and affiliates. This can largely be explained by the vast number of different types of single bets advertised across the two weeks. For example, single bets identified within the current study ranged from relatively simple events with as few as two possible outcomes to more complex predictions such as predicting a first goalscorer within a football match, the winner of a horse race or the winner of a tournament. As such, the large variety in bets within the 'single' category makes it difficult to draw solid conclusions around the complexity of bets within the category. However, it was observed within the study that affiliates posted a higher frequency of multiple bets than operators and operators posted a higher frequency of single-game multi-bets. Both of these types of bets are more complex than single bets and therefore are likely to lead to more individuals making a loss within a population of bettors due to higher market over-rounds and poor understanding of probabilities with higher bet complexity (Newall, 2015, 2017).

One novel aspect of the current study was that it investigated the success of bets which were advertised. Findings highlighted that around one in five advertised bets were winners, regardless of the type of account they were advertised on. Both affiliate advertised bets and operator advertised bets made a loss based upon betting on each bet with even stakes, albeit affiliate bets led to a smaller loss. Whilst this may show that affiliates bets slightly outperformed operator ones, it still highlights that their bets lose at a rate of four times those which win and that on average their advertised bets lead to losses. These findings were replicated within the simulation data of samples of randomly chosen bets, with affiliate bets again outperforming those of operators yet more simulations leading to a loss than a profit. Further to this, the simulation data suggests that there is less chance of making profit as the number of bets increased within the simulation. Affiliates also posted updates on one in five winning bets but less than two in one hundred losing bets, creating a false image of how successful their bets are. Taken together, these findings raise further questions as to the transparency of affiliate accounts on social media and their potential to be harmful to bettors. As affiliate accounts are largely presented as betting communities or 'tipping' accounts, they should be required to track the success of their suggested bets and report this back to their followers. This would help their followers make informed decisions on whether they want to bet on suggested bets.

Evaluation of study and future research

By providing an initial evaluation of the types of bets that are advertised on social media and their success, the study provides a crucial insight into one of the main betting marketing strategies employed within Great Britain. Given that spend on social media marketing is increasing (GambleAware, 2018) and gambling companies agreed to reduce their television advertising from August 2019, it is likely that increasing focus will be placed on social media marketing going forward. This highlights the importance of understanding how operators engage with such marketing. The current study was also the first study to the author's knowledge to investigate the bets advertised by gambling affiliates on social media. This is important as little has currently been researched on affiliate marketing for sports betting and concerns have been raised as to how such marketing may be interpreted by bettors (Houghton et al., 2020). Another strength of the current study was the novel use of simulation data to highlight the likelihood of making a profit or loss based upon betting on a random selection of advertised bets. This demonstrated that bettors are unlikely to make a profit betting on 'tipped' bets by affiliates and that bettors' chances of making a profit decrease the more they bet on advertised bets. As such, it is suggested that future research could build upon the use of such a strategy and advance on it to consider different staking plans used by bettors.

One limitation of such an approach is that it can be criticized for lacking applicability to real world betting choices. Many bettors would argue that their betting choices are not made at random and that they rely on their own skill to choose bets. Additionally, there was no data to assess how frequently any individual advertised bet was taken up by customers and therefore the simulations may not be representative of actual betting behavior. However, research has demonstrated that bettors tend to overestimate their own ability to predict outcomes within sporting events and make poor probability judgments of complex events (Cantinotti et al., 2004; Khazaal et al., 2012; Newall, 2017). Therefore, there is little evidence to suggest that, on average, bettors would be more successful choosing their own bets rather than betting on a random selection of bets. This is something which could be empirically assessed within future research. However, the fact that around four in every five bets advertised lost and the average odds of winning bets was just 2.63 suggests that it would be difficult for bettors to profit from advertised bets. A further limitation of the study is that when assessing whether the success of bets, the authors only considered when whether the success of bets had been directly commented upon. However, given the large of posts made on social media relating to sports content (Houghton et al., 2019), the extent to which success of bets was indirectly commented upon was not assessed.

Conclusion

The current study aimed to provide an understanding of the bets advertised on social media and their success. It was found that there is a large number of bets advertised per day across the most followed operator and affiliate accounts and that those bets tended to give odds with low expected probability of winning. This was supported by the data looking at how successful bets were which found that just one in five bets on average were winners and that both operator and affiliate advertised bets would lead to losses if they were bet on with even stakes. This was further compounded by the simulation data which showed that betting on a random selection of advertised bets more commonly led to a loss than a profit and that chances of making a profit decreased with the number of bets included within the simulation. Such findings highlight the potential dangers for bettors engaging with social media marketing on social media, whereby the frequency and types of bets advertised will likely result in more overall losing bettors within the population of bettors.

Concerns were also highlighted over affiliate marketing, with affiliate advertised bets being framed as betting tips yet still leading to regular losses within the data. Affiliates also misrepresented the success of their bets by posting more frequent updates of winning bets than losing bets, creating an image of their advertised bets being more successful than they are. This is something which may create a false sense of confidence within affiliate advertised bets. It is suggested that for affiliate marketing to be done in a manner which fits within the safer gambling framework, affiliates should be more transparent about the success of their advertised bets to help bettors make informed decisions regarding their advertising.

Disclosure statement

This study was carried out as a part of the lead authors' PhD studies. The PhD was funded by GambleAware. Author 2 declares that he has no conflict of interest. GambleAware approved the overall focus of the PhD, however had no involvement in the research design, methodology, conduct, analysis or write-up. Author D declares that he has no conflict of interest. Author was the lead supervisor on the main author's PhD program. In accordance with Taylor & Francis policy and my ethical obligation as a researcher, I am reporting that I receive funding from GambleAware to carry out my PhD studies, a company that may be affected by the research reported in the enclosed paper. I have disclosed those interests fully to Taylor & Francis, and I have in place an approved plan for managing any potential conflicts arising from that involvement.

Ethical approval

The study has received ethical approval from the ethics committee at Northumbria University. This article does not contain any studies with human or animal participants performed by any of the authors.

Preregistration statement

The authors declare that there is no pre-registration in relation to this study.

Data availability statement

The data that support the findings of this study are openly available in Mendeley Data at http://dx. doi.org/10.17632/jwwkwj9wpc.1.

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