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## Analytics and iGaming

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On May 14<sup>th</sup>, 2018, the Supreme Court of the United States declared the Professional and Amateur Sports Protection Act (PASPA) unconstitutional, paving the way for more business activity in the sport industry. In the four years since, sports betting in the United States has surged. Millions of wagers on marquee sporting events like the Super Bowl and March Madness, has resulted in a total of \$125 Billion USD over the 96-month range (Blasi, 2022). This high-frequency of legal wagering activity begets larger tax revenues for the public coffers; some states like New York are expected to generate nearly half a billion a year by 2025 (Yakowicz, 2021). In fact, New York State is roughly generating \$330 Million USD each week (Butler, 2022)! These figures have led to 30 states (at present) with live operations, and another five whom have legalized sports betting with legal operations on the horizon.

Interestingly, Canada, America's neighbor to the North, has also embarked upon a similar path. A critical market given its geographic proximity to the U.S. and connection to multiple professional sport leagues (e.g., NBA, MLB, NHL, MLS; O'Reilly et al., 2022), Canada had already legalized sports betting, but operated with a structure that: a) allowed wagers only through government-operated lotteries and b) only parlay betting. This meant that consumers were limited to the government monopoly for legal sports betting, as well as having to bet on two or more sport events at one time, limiting appeal and reach (Ralph, 2021). But, on August 4, 2021, the Safe and Regulated Sports Betting Act (SRSBA) was enacted (through royal assent), paving the way for Canadian provinces to operate sports betting markets with single-game wagers, ostensibly putting them on par with markets in the U.S. Some markets in Canada like Ontario are poised to be one of the largest gaming jurisdictions in North America, demonstrating its importance on both sides of the border (Seaborn, 2022).

But while the developments in these North American jurisdictions may seem uneventful and pedestrian, they are indicative of a massive disruption in modern-day sport (Bradish et al., 2021). Of course, wagering on sport is not new (Lamont et al., 2011); from private peer-to-peer betting to commercial book-making, there is a history of wagering on horse racing and pugilism before the emergence of ball sports like baseball at the turn of the 20<sup>th</sup> century (Pradier, 2019). However, nearly a quarter into the 21<sup>st</sup> century, sports betting today looks much different with several critical situational (e.g., greater accessibility via internet and mobile devices) and structural (e.g., single-game parlays and boost rewards) factors contrib-

uting to a reshaped, modernized model where wagers are digital, instantaneous, and rapid (Lopez-Gonzalez et al., 2017). The opportunity to place (sport) bets via the internet, also known as “iGaming,” creates the condition whereby consumers can become more interested in teams and games outside of their home market, as well as offer greater attention to products with less traditional media coverage (e.g., women’s professional sport). It also injects a new stakeholder into the sport business complex, facilitating more advertising and partnerships discussions, too (O’Reilly et al., 2022).

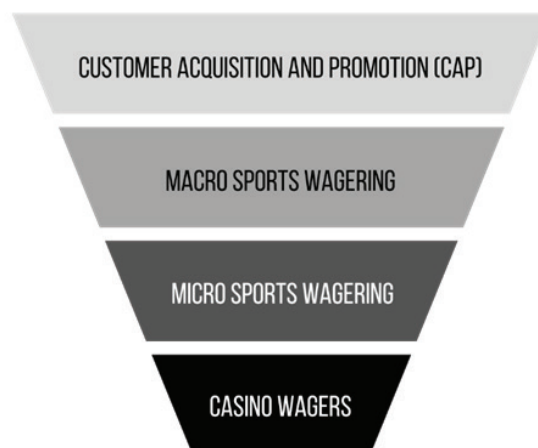
The emergence of the iGaming model is particularly intriguing as it comes at a time when the industry has been using the availability of big data and analytics (BDA) to make informed decisions (cf. Watanabe et al., 2021). Analytics has become quite the buzzword, but its application to discover, interpret, and communicate meaningful patterns from voluminous, velocitous, and varied data still resonates in the sport industry, and has an incredibly important place in modern sports betting. Specifically, BDA can help address marketing issues as iGaming in North America enters its infancy and attempts to establish a mature marketplace. As such, the remainder of this piece is dedicated to unpacking the iGaming model and uncovers where BDA could and should be applied to derive greater insights on sports betting consumer behavior.

### The iGaming Model

Before highlighting BDA and iGaming, it is necessary to briefly explore the iGaming model. iGaming operators do not require brick-and-mortar operations, and instead opt to host their product on websites and mobile applications for accelerated consumer activity (Cortis & Spiteri, 2021). That consumer activity is depicted by a funnel (see Figure 1).

#### Figure 1

*The iGaming Consumer Activity Funnel*



At the top of the funnel is customer acquisition and promotion activity. Here, iGaming operators leverage social media (among other media) to attract new customers and build a digital community (Stadler & Naraine, 2020). Operators also provide significant promotional incentive to acquire new customers including free credits, matched deposits, and odds enhancers. Once customers are acquired, wagering activity tends to remain at a macro level with bets placed on the outcome of a sporting event. This often manifests in the form of choosing an outright winner (known as “moneyline bets”), betting on or against the spread, or betting on futures (e.g., Super Bowl outright winner before the season starts). However, macro wagers can also be parlayed for greater odds, and consumers at this activity level tend to opt for parlays when there exists a slate of sports activities on a day or weekend such as Collegiate Football on Saturdays.

Once consumers invest time with macro sports betting, there is an opportunity get more involved with micro sports wagers. These are the “prop” events where consumers bet on individual athlete performances, as well as live, in-game activity such as betting on the outcome of the next play (e.g., will the next pitch be a ball, strike, or hit in-play?). These wagers can also be made in a singular, one-off fashion or parlayed for greater odds.

Finally, the bottom of the iGaming funnel is casino wager activity. Whereas sport wagering requires sport to occur (which predominantly occurs during the evening period of a day or throughout the weekend), casino activity is available every hour of every day. Casino wagers on iGaming websites and mobile apps involve traditional brick-and-mortar activities such as slots and table games, modified to work in a digital environment. In the case of the latter, live dealers work in shifts throughout the day, spinning real roulette wheels and dealing real playing cards.

Of note is that this funnel is not static beyond the initial acquisition and promotion activities, though iGaming operators do offer ongoing promotions to retain customers, too. Nevertheless, it is possible for customers to wager on macro and micro sports activities and, while they wait for the results, wager with casino games (ostensibly making casino wagers the most lucrative and highest value proposition in the iGaming model). Thus, there is the potential for large amounts of consumer activity, underscoring the need to apply BDA to the iGaming space.

### **Applying Big Data Analytics in iGaming**

The first opportunity for BDA in iGaming exists at the first consumer activity level: CAP. One of the most pressing discussion topics in the iGaming context is customer acquisition costs (CAC). In sectors like financial or computer hardware, CAC is modest at about \$200 USD (Rathi, 2022). However, one iGaming operator, DraftKings, has reported that their CAC costs were \$371 USD (Evans, 2020), a nearly 60% difference from those aforementioned sectors.

In the absence of high capital expenditure on physical infrastructure, and consolidation on the technical infrastructure required to operate (e.g., using similar technology stacks or underlying coding; cf. Cortis & Spiteri, 2021), iGaming operators focus on diverting resources towards acquiring new customers to build up their userbase. In the Province of Ontario alone, there were 31 iGaming websites developed in the first quarter of operation post the SRSBA (Seaborn, 2022). Consequently, there is the potential to drive CAC higher and, anecdotally, some operators have expressed comfort with those costs hovering near the \$500 USD mark in 2022. Along this vein, it remains unclear what churn rate (CR) and retention rates look

like in the iGaming space. In New York State, most wagers are placed with two operators (i.e., FanDuel and DraftKings), but other major players exist, too, including PointsBet, Caesars, and BetMGM (Butler, 2022). Accordingly, it is useful not only to address which promotional activity can drive signups to the firm (e.g., social media activation, free bets, celebrity endorsers), but it is also incumbent on iGaming operators to determine churn, retention, and survival probability rates given the notable competition. These insights can impact marketing strategies and influence CAC to optimize signups.

Another opportunity for BDA in iGaming is to examine, more intimately, the nature of sport wagering in this space. Although PASPA and the SRSBA have facilitated the potential to increase betting activity on sport events, it is important to examine *whom* are making bets on *which* teams and sporting events. Drawing back to the Province of Ontario example, in the first three months of iGaming, there were a total of 492,000 accounts created wagering over \$4B CAD (Seaborn, 2022). The challenge with these figures is two-fold: (1) the figures are inclusive of sport and casino wagers and (b) they do not isolate wagers on sport activities alone. As the iGaming consumer activity funnel depicts the potential for macro and micro level sports wagers, it is incumbent for scholars and practitioners to apply BDA to extract the intricacies of the types of sport wagers and their impact on sports fans, not just iGaming consumers.

Na et al. (2019) suggested fans tend to overestimate winning by their favorite team, and tend to wager with this bias, while Blank et al. (2021) explained that sports betting has the potential to create negative fan engagement. Are these behaviors resulting from increased macro or micro sports wagers? What macro competitions yield the most wagers? What types of props? Which sport consumers are taking wager advice from “experts” and prediction websites (cf. Spann & Skiera, 2009)? These questions are particularly intriguing across state lines. In the U.S., some state jurisdictions have prohibited wagers on intercollegiate sporting events featuring teams from the same state (e.g., New Jersey State consumers betting on Rutgers or Seton Hall). Thus, there exists the potential for fans of those athletic competitions to venture into neighboring states like Delaware or New York to place bets. These intricacies must continue to be explored to understand sport consumer behavior in this space and, consequently, provoke frequency in betting habits.

Finally, BDA in iGaming must, of course, be applied to uncover another important marketing analytics metric: customer lifetime value (CLV). Although CAC may rise with increasing competition, operators are accepting of those figures given the amount of CLV that can be generated per customer. CLV is the total worth of a consumer to the business over time and, some operators have indicated current values hover near the \$2,500 USD mark. But, for each operator to ascertain CLV, it is critical to dive deeper into BDA. For starters, the industry needs to analyze data to determine the average dollar amounts placed per bet and the average number of transactions placed in a given period. These insights are imperative to know, as they help determine a consumer’s contribution in a given time period (i.e.,  $x$ ) which can be plugged into the CLV formula:

$$CLV = \frac{x}{CR} - CAC$$

Just because a consumer signs up to a particular iGaming operator site does not mean they stay within that site for all their betting activity, nor does it mean they wager large sums in that ecosystem. Some industry insiders have remarked that consumers tend to sign up for four or five iGaming accounts, often doing so because (a) consumers want to scout which site offers the best odds on a particular event and (b) they want to benefit from promotional offers across the spectrum of operators. Thus, there is an impetus to extract as much data from consumer activity to determine whether there is an acceptable level of value per customer, or if further marketing refinements are necessary. How does this compare to CLV for other sport consumer segments?

Related, there is a unique opportunity to determine whether consumers are moving through the activity funnel, specifically from macro to micro sports bets and then onto casino wagers. Because of the nature of casino wagering being instantaneous and not time-locked to live sport events, they offer more value for operators in the iGaming space. Unpacking the demographics and behavioral insights pertaining to consumers who move from one level to the next, specifically from sports to casino, is critical if operators seek to survive in this highly competitive marketplace.

### **Concluding Remarks**

Herein, the iGaming model was discussed and specific (but not exhaustive) applications of BDA were introduced. The betting industry has a unique connection to sport with its overlap of consumers/fans, but the recent emergence of iGaming in North America has the potential to create even stronger linkages. As operators entice consumers to enter their ecosystems, stimulate macro- and micro-level sports wagers, and, ultimately, encourage casino betting activities, there exists an opportunity to delve deeper into these many transactions and their various datapoints. BDA insights on the marketing activities, promotions and consumer behaviors, emanating from the iGaming phenomenon is available and a necessary next step as this space gains greater attention by sport business professionals and seeks maturation.

It is also imperative and incumbent on scholars and practitioners to work together, collaborating on access and reporting, to generate insights from BDA in iGaming. There is a ripe opportunity for research, insights, and shared knowledge translation given the many threads discussed in this piece alone, but it should not be a siloed endeavor. While operators may be highly protective of their data and consumer privacy, it is critical that sport-academic researchers with BDA expertise be involved to assist in the building of an iGaming knowledge base. As iGaming bridges the business enterprise, government, learning institutions, and consumers, creating a collaborative research environment for BDA in iGaming must be a high priority for the industry.

## References

- Blank, A. S., Loveland, K. E., & Houghton, D. M. (2021). Game changing innovation or bad beat? How sports betting can reduce fan engagement. *Journal of Business Research*, 134, 365-374. <http://doi.org/10.1016/j.jbusres.2021.05.036>
- Blasi, W. (2022, May 20). Americans have bet \$125 billion on sports in the past four years as legalization push continues. *MarketWatch*. <https://www.marketwatch.com/story/americans-have-bet-125-billion-on-sports-since-more-states-legalized-it-four-years-ago-11652794280>
- Bradish, C. L., Finch, D. J., Legg, D., & Naraine, M. L. (2021, July 22). Game on! The opportunities and risks of single-game sports betting in Canada. *The Conversation*. <https://theconversation.com/game-on-the-opportunities-and-risks-of-single-game-sports-betting-in-canada-163929>
- Butler, R. [@ButlerBets] (2022, September 15). DraftKings & FanDuel combined to make up nearly 75% of New York's \$330m online sports betting handle for the week ending Sept. 11 [Tweet]. Twitter. <https://twitter.com/ButlerBets/status/1570483491216957440>
- Cortis, D., & Spiteri, L. (2021). iGaming versus banking: Differences and similarities. *The Journal of Gambling Business and Economics*, 14, 15-31. <https://doi.org/10.5750/jgbe.v14i1.1938>
- Evans, P. (2020). Sportsbook operators turn to media influencers in customer loyalty race. *Front Office Sports*. <https://frontofficesports.com/betting-operators-influencers-mcafee/>
- Lamont, M., Hing, N., & Gainsbury, S. (2011). Gambling on sport sponsorship: A conceptual framework for research and regulatory review. *Sport Management Review*, 14, 246-257.