

Finding the Invisible At-Risk Player – Using technology to help identify customers spending beyond affordable limits



Focal Research Consultants
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Summary Report

The Focal ALeRT Affordability Index: Finding Overspenders Among Regular EGM Gamblers

January 2022

The Invisible At-risk Player – Identifying customers spending beyond affordable limits.

1.0 Overview

Regulators recognize that some gamblers spend more money than they can afford while gambling, leading to negative consequences, including the use of misappropriated funds to finance the activity. Identifying these customers has become a priority for operators but poses several challenges as affordable limits vary strongly between players. The use of rule-based thresholds for triggering action, such as amount spent, are very inefficient in finding the right people; if set too low most of those reaching a certain spending threshold will not be in the target group, if set too high, then most of those in the target group will be missed. As a result, such broad approaches are ineffective in reaching or producing improved outcomes for players most likely to be overspending. To address the gap and supplement operator host responsibility efforts, in 2015, Focal Research Consultants Limited initiated original research to develop algorithms designed to find those most likely to be spending beyond affordable limits. Risk detection is based on player behaviour and play decisions regardless of the absolute amount of money spent. Focal developed a new Affordability construct for the Focal Adult Gambling Screen (FLAGS), a seven-item scale to identify those players most likely to be spending beyond their means and to be obtaining cash to do so in non-traditional ways. During testing, the new scale was administered to over 10,000 regular EGM players from three different countries (UK, AU, NZ) representing 8 different operators and over 300 venues. Using these datasets, Focal developed effective algorithms and profiles for accurately detecting and assisting at-risk 'Overspenders'. These customers pose unique risk to communities and operators and would otherwise be invisible to operators when using rule-based or other methods of detection.

Where: focalresearch.com

Highlight Report

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Who is Focal Research Consultants?

- Halifax, Nova Scotia, Canada
- 32 years of academic & applied gambling research
 - 27 peer reviewed Government Reports,
 - Published papers, Conference presentations, White papers
 - Gambling Research for Industry and Regulators (1989+)
 - Responsible Gaming Development, Program Evaluation, Social Policy (1996+)
 - Behavioral Analytics & 'Big Data' experience (retail, financial, gambling) (1996+)
 - Player protection, safer gambling (2001-present)
- Built and implemented first commercial algorithms to identify high-risk and problem gamblers (2005).
- International collaborative project to develop an adaptive universal risk modelling framework (3 countries; 8 operators) (2016 – 2020)
- ALeRT™ BETTOR Protection System and ALeRT™ BETTOR Customer Care– focalalert.com
- 400+ gambling venues worldwide

Why this Research?

Regulators issued requirements to identify those overspending.

How can operators efficiently and accurately find these people and what can they do or say when they find them?

We set out to find, profile and then to develop algorithms to identify these gambling customers.



Over-Spender Model: Causal Factors and Outcomes



The Data

1. Combined Survey Data (n = 10,304)

- 14 Online surveys in UK, NZ, and Australia, 2016 to 2019
- Regular slot and electronic roulette players (6+ sessions/year)
- Overall response rate of 16.7%.
- PGSI, Focal Adult Gambling Screen (FLAGS), Affordability Questions

2. Electronic Machine Loyalty Behaviour Data (slots, electronic roulette)

- Two years loyalty data collected for each respondent (500+ variables)
- Linked to survey data

Affordability Index Creation and Testing

- Factor analysis (PCA) conducted for six samples in three countries
- Confirmatory factor analysis also showed the construct was valid.
- The index passed several additional validity and reliability tests.
 - Composite reliability was 0.87
 - Chronbach’s Alpha was strong at 0.84
 - Convergent validity - average variance extracted (AVE) = 0.50

Affordability Statements	Confirmed Loadings
I have borrowed money from others without them knowing so I could continue to play at the casino.	0.76
I have played at the casino using money that did not belong to me.	0.75
Sometimes I am not able to pay back money I borrowed to play at the casino.	0.75
I often play at the casino with money I have borrowed from other sources.	0.74
I often play at the casino using money meant for other purposes.	0.69
I have found ways to get money so I could continue to play at the casino.	0.67
I have done things that may not be legal because of my casino gambling.	0.57

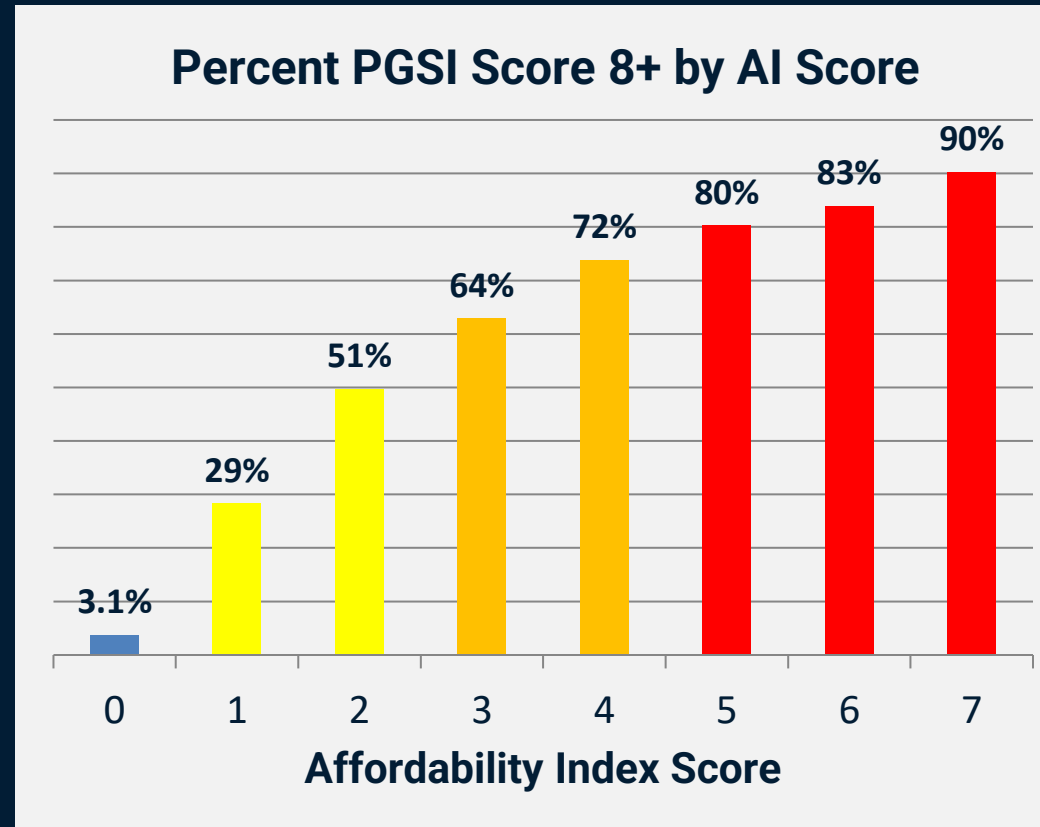
7 Affordability Index Statements N = 10,304

PERCENT ENDORSING AFFORDABILITY INDEX STATEMENTS	(n=10,304)
I often play at the casino using money meant for other purposes.	11.1%
I have found ways to get money so I could continue to play at the casino.	7.6%
I often play at the casino with money I have borrowed from other sources.	4.8%
I have played at the casino using money that did not belong to me.	4.2%
Sometimes I am not able to pay back money I borrowed to play at the casino.	3.9%
I have borrowed money from others without them knowing so I could continue to play at the casino.	3.3%
I have done things that may not be legal because of my casino gambling	1.9%

Affordability Indicator Profile

Three segments based on their Affordability Index scores

1. **Diverter Segment:** Scoring 1-2 = 12% in our sample of regular players.
2. **Finder Segment:** Scoring 3 to 4 = 3% in our sample of regular players.
3. **Borrower Segment:** Scoring 5-7 = 2% in our sample of regular players.



Affordability Segment Profiles

Statements	DIVERTER Segment n = 1207	FINDER Segment n = 300	Borrower Segment n = 199
I often play at the casino with money I have borrowed from other sources.	12%	56%	87%
I often play at the casino using money meant for other purposes.	60%	80%	94%
I have found ways to get money so I could continue to play at the casino.	35%	60%	89%
I have played at the casino using money that did not belong to me.	9%	45%	92%
I have borrowed money from others without them knowing so I could continue to play at the casino.	3.4%	39%	88%
Sometimes I am not able to pay back money I borrowed to play at the casino.	7%	45%	90%
I have done things that may not be legal because of my casino gambling.	3.8%	17%	51%

Over-spender Segment

Over-Spenders

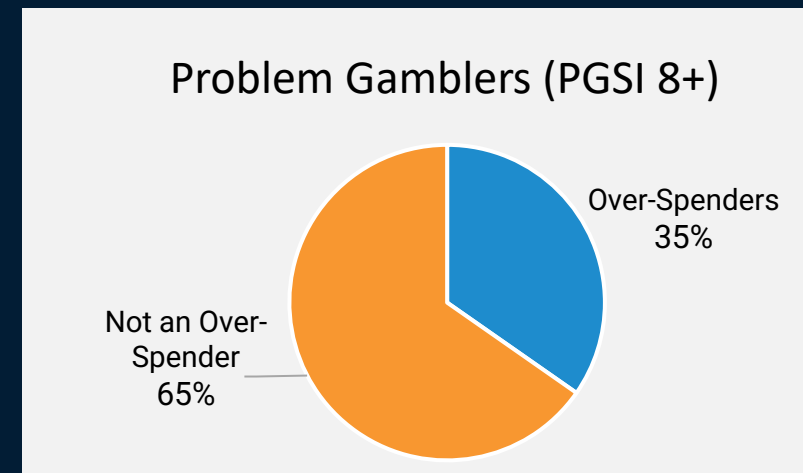
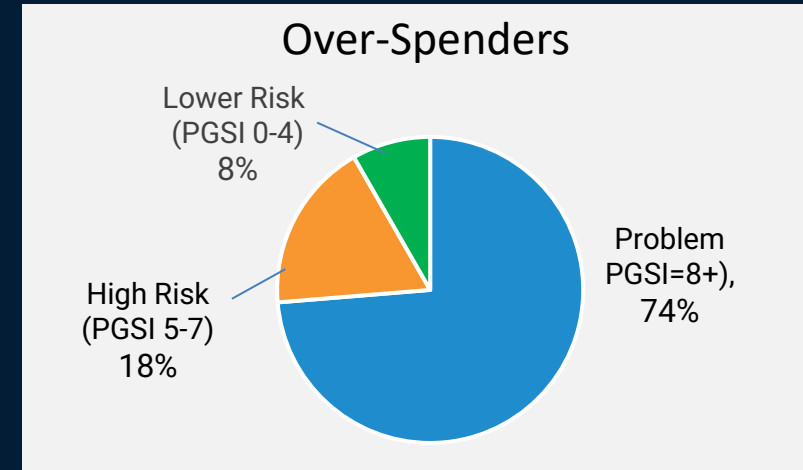
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1. Results of Analyzing Survey Data Causes and Outcomes of Overspending

79 statements – PGSI, FLAGS, Affordability Index

Over-Spenders Scoring 3+ on the Affordability Index

- Over-Spenders make up 4.8% (≈5%) of our sample of regular EGM gamblers.
- 92% of Over-Spenders scored as high-risk or problem gamblers
 - 74% scored 8+ on PGSI (PGs)
 - 18% scored 5-7 on PGSI (High-Risk)
- 35% of Problem Gamblers are Over-Spenders



Profiling Over-Spenders on Causal Dimensions

Beliefs

- Had a big win
- **Easy way to get extra money**
- When losing keep gambling
- **Gamble when you need money.**

Motives

- **Gamble when they want money.** (+6.7 times)
- In order to **get a big win.**
- Gamble when they **need cash to continue gambling or pay bills.**

Impaired Control

- Exceed the amount they intended to spend,
- Don't stop when ahead.
- **Over 60% tried to stop.**

Profiling Over-Spenders on Causal Dimensions

Risky Play Behaviours

- Making bigger bets
- Play max bet when winning.
- Chases losses during session
- Spend more time than intended.
- Gambled at work. (+11.9 times)
- More likely to borrow money

Obsession

- Often think about gambling or how to get money.

Negative Consequences

- Financial – (+27.3 times)
- Social –
- Work – (+26.8 times)

2. Results of Analyzing Behavioral Data

Two year's worth of loyalty data -> 500+ variables

11 Key Play Behaviours

Gambling Behaviours of Over-Spenders Compared to All Other Regular EGM Gamblers

Their most distinctive behaviour is the amount they wager per spin.

Play Behaviour	% Difference	Confidence Level
Turnover per Spin	40.1%	99.6%
Spins per Hour	-8.6%	96.6%
Length of a Sessions	-9.2%	96.4%
Number of Sessions	-7.1%	81.1%
Turnover per Hour	9.0%	NS
Turnover per Session	15.6%	97.2%
Losses per Session	14.9%	82.2%
Total Number of Spins	-14.2%	93.2%
Total play hours	-19.3%	97.9%
Total Weekend Play Hours	-29.2%	99.9%
Number of Overnight Sessions	13.8%	82.2%
Total Losses	9.0%	NS

Gambling Behaviours of Over-Spenders Compared to All Other Regular EGM Gamblers

Their play is less intensive and extensive on several dimensions.

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Gambling Behaviours of Over-Spenders Compared to *Other Regular EGM gamblers*

Current methods for identifying at-risk players on the floor using visual cues are unlikely to find Over-Spenders.

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Gambling Behaviours
of Over-Spenders
Compared to *those
who Score 5+ on
the PGSI.*

Play Behaviour	% Difference	Confidence Level
Turnover per Spin	30.0%	95.9%
Spins per Hour	-7.5%	95.6%
Length of a Sessions	-17.8%	99.9%
Number of Sessions	-20.3%	99.9%
Turnover per Hour	-2.1%	NS
Turnover per Session	-19.7%	97.8%
Losses per Session	-27.2%	97.2%
Total Number of Spins	-44.5%	100%
Total play hours	-36.0%	100%
Total Weekend Play Hours	-43.5%	100%
Number of Overnight Sessions	-18.5%	89.1%
Total Losses	-42.4%	99.6%

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Total play hours	-36.0%	100%
Total Weekend Play Hours	-43.5%	100%
Number of Overnight Sessions	-18.5%	89.1%
Total Losses	-42.4%	99.6%

Key Takeaways:

1. Focal developed a valid and reliable Affordability Index to help identify those spending beyond affordable limits (i.e., Over-spenders)
2. These Over-Spenders make up ≈5% of regular EGM gamblers in our sample.
3. A third of Problem Gamblers are Over-Spenders while almost all Over-Spenders scored as high-risk or at problem gambling levels.
4. The causal path to overspending explains their behaviour.
5. Their **intensity of gambling is less** except for the amount per wager
6. They should not be ignored. These are the most vulnerable players due to a lack of resources - though they spend less they have more negative consequences. Current cues will not identify these players, but effective algorithms can address the gap.
7. Affordability Models/algorithms were adapted for changes in policy and play patterns due to COVID-19 pandemic impacts **and are currently in use.**

Key Takeaways:

1. Focal developed a reliable and valid Affordability Index to help identify those spending beyond their means.
Regulators issued requirements to identify those overspending.
 2. These Over-Spenders make up 15% of regular EGM gamblers in our sample.
 3. A third of Problem Gamblers are Over-Spenders while almost all Over-Spenders scored as high-risk or at problem gambling levels.
 4. They are more likely to exhibit problematic gambling behaviour.
 5. They spend more than the average amount per wager.
 6. They should not be ignored. These are the most vulnerable players due to a lack of resources - though they spend less they have more negative consequences. Current algorithms can address the gap. Changes in policy and play patterns due to COVID-19 pandemic impacts **and are currently in use.**
- How can operators efficiently and accurately find these people and what can they do or say when they find them?**
- Focal found and profiled Over-Spenders and then developed algorithms to identify these vulnerable customers.**

Thank you!



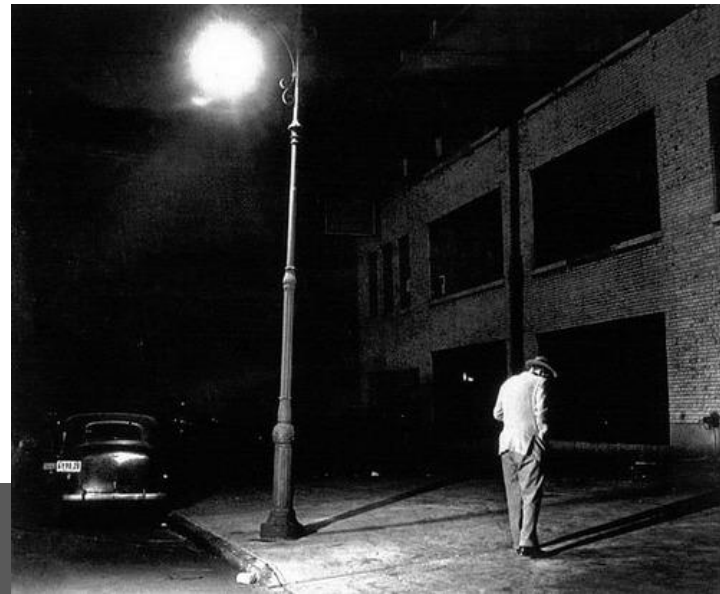
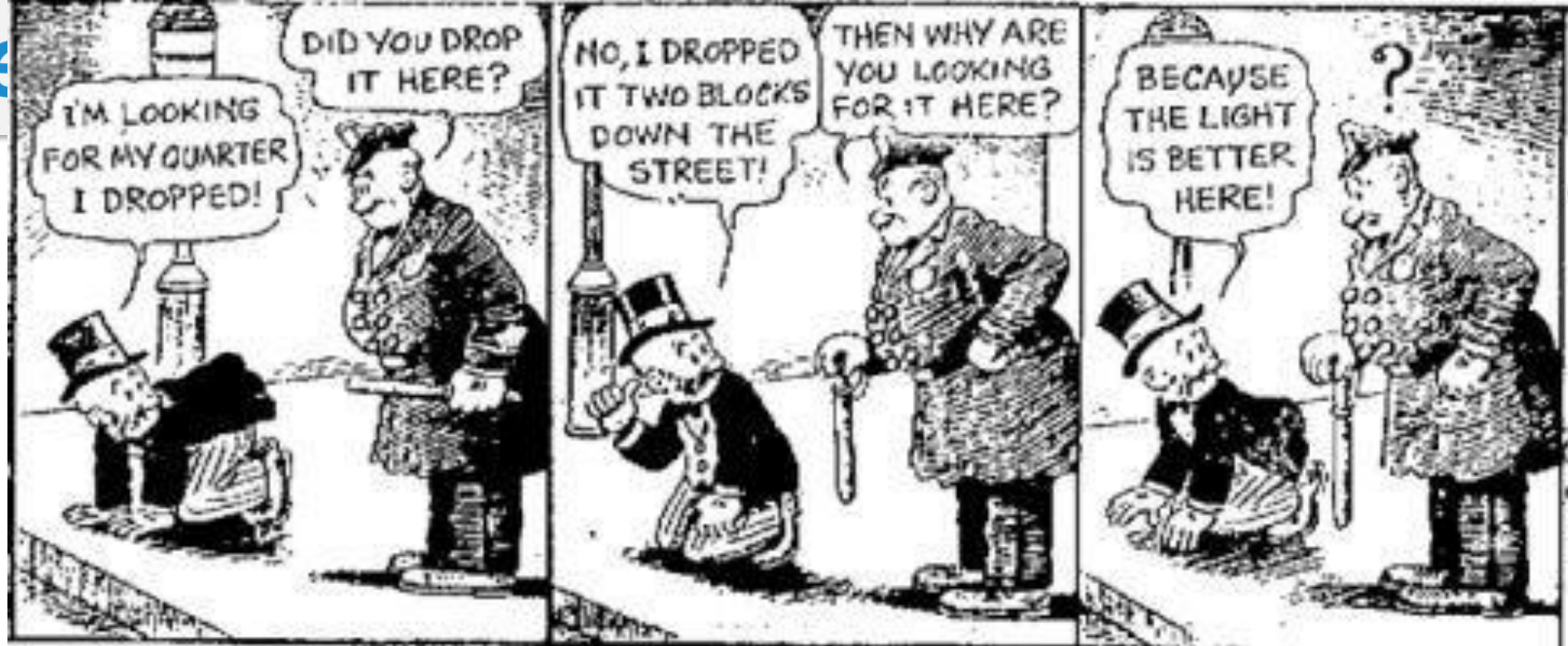
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"I'm searching for my keys."

