



# **Responsible Gaming Features for ATMs and Accessing Money at Gaming Venues:**

An Impact Evaluation of Suppression Features on Automated Teller  
Machines (ATMs) in Gaming Venues

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## EXECUTIVE SUMMARY

This project aimed to evaluate the impact of responsible gaming features intended to suppress excessive money withdrawals on automated teller machines (ATMs) in the gaming industry through five activities:

1. **LITERATURE REVIEW:** Review research to date on accessing money at gambling facilities, including ATMs and cashless systems
2. **REGULATORY REVIEW:** Review current regulations pertaining to ATMs and cashless systems in gambling facilities from a range of international jurisdictions
3. **SITUATION IN JAPAN:** A summary of the situation in Japan regarding the Pachinko/Pachislot industry.
4. **ONLINE SURVEY:** Survey ATM-using pachinko players on the utility and impact of the current features of Trust Networks Inc. ATMs in pachinko facilities
5. **DATA ANALYSIS:** Analyze Trust Networks Inc. ATM transaction data from 2008 to 2020 and determine the impact of their withdrawal limit features

### Literature Review

- The literature review provides a strong confirmation of the relationship between mechanisms for accessing money for gambling, such as ATMs (without suppression features), and gambling risk and harm
- Removing ATMs from gambling venues have shown mixed effects
- Cashless and card-based systems show potential for reducing gambling risk and harm
- Financial service providers enabling clients to block gambling transactions provided validation of limit setting and self-exclusion features on ATMs in gambling venues

### Regulatory Review and Key Informant Interviews

- International jurisdictions where ATMs are allowed inside gambling venues typically feature some form of suppression, though withdrawal limits are not necessarily common
- In jurisdictions where ATMs were not allowed inside gambling venues, they were typically located just outside of entry ways and did not have suppression mechanisms
- The most common suppression feature included the prohibition of cash withdrawals using credit cards
- The use of mandatory identity checks at entrances to gambling venues combined with money access controls were apparent in some jurisdictions
- Integration of responsible gaming features on ATMs located at gambling venues is gradually becoming an adopted best practice

### Survey of Pachinko Players

- The majority of pachinko players appeared to be married and have stable employment and above average incomes
- A considerable proportion of pachinko players (31.8%) were assessed as high risk players

- The majority of pachinko players played at least once a week or more (before the coronavirus pandemic), engaged in legal forms of gambling (e.g., lottery, soccer betting, horse racing, motor sports), and often used ATMs to access funds for pachinko
- Pachinko players (75.4%) overwhelmingly supported the provision of suppression features on ATMs to help prevent excessive financial losses
- 46.8% of all pachinko players agreed that convenience stores near pachinko parlors with ATMs should have suppression features

## Analysis of Transaction Data

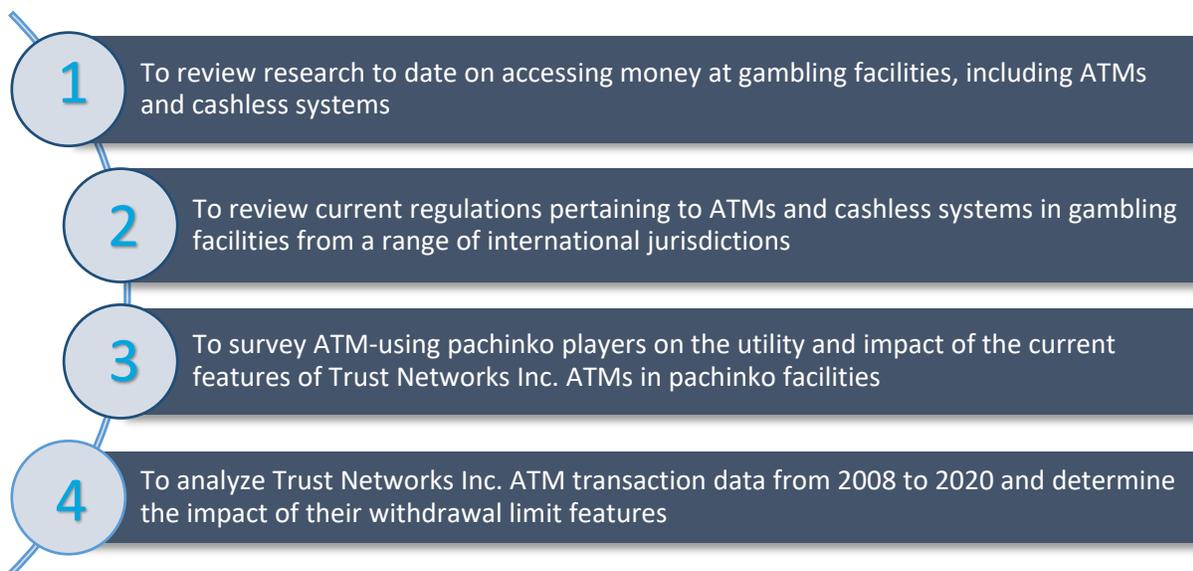
- Progressive implementation of monthly withdrawal limits has shown a direct and statistically significant reduction in excessive gambling withdrawals, and potentially losses as well
- Daily withdrawal behaviour has also seen a significant impact associated with ATM suppression features. It was evident that between 2008 and 2020 daily withdrawal amounts have been decreasing, corresponding with the introduction and update of withdrawal limits, along with the proportion of clients reaching the ¥30,000 daily limit instituted in 2008.

## INTRODUCTION

Trust Networks Inc. contacted the Responsible Gambling Council's (RGC)<sup>1</sup> consulting service, RG+, to evaluate the effectiveness of excessive withdrawal suppression features on Trust Networks Inc. automated teller machines (ATMs) and identify opportunities for their future improvement. Through the RGC, the world's preeminent responsible gambling<sup>2</sup> organization, RG+ offers an exclusive combination of research expertise along with over three decades of operational experience and knowledge. RG+ fulfills its mission to prevent problem gambling by identifying and promoting the adoption of best practices through a strategic research program and the creation, delivery, and evaluation of innovative awareness and information programs. RG+ has consulted with and provided expert guidance to operators and regulators across Canada, the United Kingdom, the United States, Singapore, Australia, and several other countries.

This project aimed to evaluate the impact of responsible gaming features available on Trust Networks Inc. ATMs through four objectives (Figure 1):

**Figure 1: Impact Evaluation Objectives to Determine Effectiveness of ATM Suppression Measures**



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<sup>1</sup> [www.responsiblegambling.org](http://www.responsiblegambling.org)

<sup>2</sup> *Responsible Gambling*: Social responsibility initiatives and safeguards that are implemented by the gambling industry to promote the awareness of harms associated with gambling. Legally, pachinko is not considered as gambling, although it shares a striking similarities with gambling.

## LITERATURE REVIEW

The review of research literature and other relevant documents relating to accessing gambling funds at gaming venues, including ATMs and cashless systems, provide a broader understanding of responsible gambling and harm minimization features and help regulators and operators guide future program evaluation. Responsible gambling literature was considered the most relevant source of evidence for informing *responsible gaming* related to pachinko.

### ATM Use and Gambling Harm

Since at least the early 2000s, research has consistently described an association between ATMs and indicators of gambling risk and harm (Allcock et al., 2002). Some studies have noted that in samples of gamblers, there has not been a very strong relationship between problem gambling and the use of ATMs, although this may be a sign that more research is needed to understand this relationship (Cherney, 2004; Thomas et al., 2010). Early studies from Australia, where the bulk of the research on this topic has been carried out, has found that self-identified problem gamblers used ATMs at gambling venues (60%) much more than regular (25%) and recreational gamblers (12.7%) (McMillen, Marshall, & Murphy, 2004). More recent studies have also noted the increased use of ATMs amongst at-risk players and found this association to be statistically significant (Stevens, 2017).

Generally, *access* and *availability* have been identified as key factors association with ATM-related gambling risk. Ready access to ATMs in venues may influence the amount of time and money spent and the level of commitment to a game during a session (Blaszczynski, 2011; Schottler Consulting, 2017; Thomas, Sullivan, & Allen, 2009; Thomas et al., 2010). In addition, the location of ATMs inside venues and close to gambling areas is reported to increase access to money and potentially lead to more impulsive gambling, especially by players considered at-risk (Thomas et al., 2010; Valladares, 2018). In one study, for instance, surveyed gamblers perceived that ATMs were placed directly next to slot machines as a way to encourage gambling even after reaching a predetermined time or money limit set by players (Pattinson & Parke, 2017). Another recent study from Canada looking at a variety of problem gambling risk factors and argued that chasing gambling losses—a predictor of gambling problems—is related to the repeated use of ATMs (Quilty, Robinson, & Blaszczynski, 2015).

In most, if not all of these cases of risk association, ordinary bank ATMs were the focus of investigation. Unlike some newer ATM variants, these ordinary bank machines lack responsible gambling features like maximum withdrawal limits, user-set limits, and even self-exclusion.

### Placement of ATMs in Gambling Venues

Removing or restricting access to ATMs in gambling venues has been one of the most common interventions for reducing harm from excessive financial losses. Research on the effectiveness of this intervention has been mixed. For example in the mid-1990s, some business advocates argued that the

popularity of ATMs in casinos reflected the need of patrons to have cash to make gambling and non-gambling purchases—it was not an indication of risky gambling habits (Cardinal, 1996). Subsequent studies pointed out that in Australia, for example, removal of ATMs was a minor and temporary barrier for many people with gambling problems—evidence suggested that determined gamblers would access cash from other means (Cherney, 2004). In addition, the same study argued that the removal of ATMs from gaming venues would inconvenience a significant proportion of lower risk gaming venue patrons. Another study from Canada tested the effects of removing ATMs and found that while it did significantly reduce slot machine expenditures on the initial day, the effects were modest and insignificant at the 30-day follow up period (Harrigan, 2010).

International studies involving responsible gambling experts, treatment professionals and recovered problem gamblers have noted that restricting access to ATMs in gaming venues is “highly recommended” for all traditional games, except lottery (Wood, Griffiths, & Shorter, 2014). Around 2012, Victoria, Australia began withdrawing ATMs from gambling venues. Research and evaluation preceding and following this decision appeared to generally support the decision, placing an increased focus on the issue of electronic fund transfer point of sale (EFTPOS) machines<sup>3</sup>, which began replacing ATMs in venues. Prior to this policy change, formative research highlighted the need to control and regulate gambling environments, including access to ATMs and EFTPOS, generally and at the national and local levels in Australia (Cantinotti & Ladouceur, 2008; Clarke, Tse, & Manaia, 2006). Australian research following the implementation of the policy change reported a reduction in onsite money access (Thomas et al., 2013). Notably, use of EFTPOS systems that remained in venues were reduced, perhaps due to the inconvenience of use—EFTPOS withdrawals involved gaming staff interaction and observation to deter multiple transactions—and high risk gamblers reported reductions in over-spending (Rintoul, Deblaquiere, & Thomas, 2017; Thomas et al., 2013). Examinations of the impact of this change on non-problem gamblers found that the removal of ATMs in electronic gambling machines (EGM) venues resulted in only a minor decrease in perceived enjoyment games (0.2%) (Jackson, Christensen, Francis, & Dowling, 2016). Among problem gamblers in treatment, ATM bans were viewed as one of the most important modifications to venues for harm minimization (Thorne, Rockloff, Langham, & Li, 2016). In practice, evaluation of Victoria’s policy change initially found a 9% decline in EGM spending across the state (Rintoul et al., 2017). Overall, the Victorian government concluded that the ban was effective as a harm minimization measure (Valladares, 2018), although some researchers indicated evidence of effectiveness was limited due to the lack of pre- and post-measurement and control groups to accurately assess policy impact (Tanner, Dawson, Mushquash, Mushquash, & Mazmanian, 2017).

Other ATM placement options included requirements on how many and where machines could be placed in a venue. One early report to the Australian Gambling Council in 2002 noted that in locations where players could reserve machines for a period of time (e.g., up to three minutes), quick trips to the ATM were possible for some gamblers, limiting the effectiveness of placing ATMs away from electronic gambling machine (Allcock et al., 2002). More recent evaluation of the merits of minimum distance

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<sup>3</sup> EFTPOS differ from ATMs in that you cannot use a credit card to retrieve money and access cards are directly connected to bank accounts, whereas ATM debit cards can and do operate on credit card systems. Both provide personal access to bank funds. In Australia, use of EFTPOS machines requires staff input and supervision.

requirements for ATMs concluded that there is potential harm minimization benefits of introducing a 30 meter limit and placing ATMs out of gamblers' sight (Schottler Consulting, 2017). This was based on the proportion of problem gamblers (26.9%) and at-risk gamblers (67%) that reported "they would not access ATMs to spend more than they intended to" and also "they would be unlikely to use ATMs to spend beyond gambling limit." While this study provided some of the most insightful findings on minimum ATM distance requirements, it was limited by its self-reported survey data (i.e., not observational behavioural data), relatively small sample size (n=700), and lack of extensive replication in other jurisdictions.

## Cashless or Card-Based Gambling

Cashless systems revolve around the use of player cards linked to accounts used specifically for gambling. These systems could incorporate accurate player history for feedback reports and behavioural tracking, self-exclusion lockouts and limit-setting tools for time and money. In some cases, card-based systems are offered as voluntary options alongside conventional gambling with money and credit, and could include loyalty point programs as well as responsible gambling features. Ultimately, the key question is whether these systems and responsible gambling features should be for voluntary or mandatory use (Parke, Rigbye, & Parke, 2008).

Credit card-based gambling is particularly risky. One recent study of 1,174 regular gamblers in Alberta, Canada that sought to identify evidence-based safe gambling practices found that credit card use for gambling was strongly associated with increasing harm—not using a credit card to gamble was considered a best practice for reducing the risk of gambling harm (Hing et al., 2019). Findings from several large surveys in the US and the UK have also established a link between consumer credit use, debts, and the increased severity of gambling problems (Swanton & Gainsbury, 2020). Prominent Australian researchers also note that financial institutions have both a social responsibility to help with their customers' financial well-being, particularly as it pertains to customer protections for credit card use for online and cashless gambling (Swanton, Gainsbury, & Blaszczynski, 2019).

Some have argued that these systems facilitate isolated and uninterrupted play, which may contribute to gambling risk and harm (Parke & Griffiths, 2007). Surveys of gaming staff in Australia have also found that players using cashless systems appeared to spend more time in the venue and longer periods at machines than non-cashless players (Nisbet, 2009). Moreover, this study reported that cashless systems can suffer from non-use of limit-setting tools and a lack of awareness amongst gaming staff of these tools, suggesting a need for enhanced communication and training. More recent review of evidence on card-based gambling programs note that few gamblers report using these programs if they are optional; card-based gaming may increase gambling sessions per day and per week; and 30% of those who used the program simply removed their card to continue playing once their limit was reached (Drawson, Tanner, Mushquash, Mushquash, & Mazmanian, 2017). Other reviews have been more critical of these systems, arguing that cashless gambling may encourage problem gambling by making it easier for people to play without seeing the money at stake (Newell, 2020). Due to the novelty of this new strategy, more research and experimentation may be worthwhile before committing to investment (Kock, 2019).

In other instances, cashless and card-based play has been shown in a more positive light. In the United Kingdom (UK), review of the limited empirical evidence points out that integrated responsible gambling features, such as limit-setting and self-exclusion, were used by some (Parke et al., 2008). Furthermore, encouraging greater use of these tools requires more focus on raising player awareness, maintaining reliable and easy-to-use systems, simple registration processes, and good security and player confidentiality. Similar studies in New South Wales, Australia have confirmed money limits of \$200 AUD per day as acceptable to gamblers for card-based play (Nisbet, 2005). In other cases, research participants (surveyed gamblers) did not believe that cashless card use impacted their expenditures, machine choices, session lengths, or breaks in play compared to non-card-based play (Nisbet, Jackson, & Christensen, 2016). However, the sampled respondents also noted that the system was helpful for managing gambling budgets and promoted more responsible play, compared to cash-based play (Nisbet et al., 2016).

## Embedding Responsible Gambling Features in ATMs

Discussion and exploration of gambling harm minimization features that can be integrated into ATMs has been ongoing for at least the last 20 years. Some early examples have included Everi's Personal Self-Transaction Exclusion Program (STeP), which continues to this day in the US (Spada, n.d.). This system effectively allows players to block access to cash across the company's entire network of ATMs, cash access kiosks, and booth services. The program also works in parallel with self-exclusion programs at land-based venues, such as casinos. Research and evaluation on ATM-based self-exclusion systems like this is limited and our understanding on their effectiveness and broad impact on gambling harm is not entirely clear. However, research on self-exclusion programs generally show that this type of intervention is useful for those dealing with gambling harm and it is reasonable to assume that being able to access gambling funds directly makes systems like this harder to breach than conventional venue-based self-exclusion (Gainsbury, 2014; Hayer & Meyer, 2011; Ladouceur, Sylvain, & Gosselin, 2007; Parke, Parke, Harris, Rigbye, & Blaszczynski, 2014; Pickering, Blaszczynski, & Gainsbury, 2018; Verlik, 2008).

Limit-setting features embedded in ATMs have also been a topic of great research interest. In the early 2000s, researchers found that establishing daily limits on withdrawal amounts could represent a more effective harm minimization strategy than removing ATMs from venues (Cherney, 2004). Generally, card- or account-based limit-setting can significantly reduce gambling activity, monetary loss, and gambling duration—especially among problem gamblers who set limits most frequently (Drawson et al., 2017). In Australia, some research has confirmed the potential effectiveness of this strategy in addition to features allowing players to self-exclude from using their debit cards at gambling venues (Blaszczynski, Parke, Parke, & Rigbye, 2014). In this case, the authors concluded that restricting easy access to cash through ATMs, providing limit-setting options and historical information on transactions would be acceptable given the research evidence and Australia's libertarian culture. Subsequent review by the Productivity Commission in Australia recommended that, based on available research evidence, a daily withdrawal limit of \$200 AUD at ATMs in gambling venues would be a best practice (Valladares, 2018).

One recent Canadian study on the effectiveness of educational responsible gambling messaging on EGMs has argued that ATMs could also benefit from this type of intervention (Hollingshead, Amar, Santesso, &

Wohl, 2019). In the study, the researchers note that providing responsible gambling information while players are withdrawing money can help them make more informed decisions about the amount they choose to withdraw and are willing to lose. In addition, embedding responsible gambling information and key messages on ATMs may create a psychological tension about continued play. Finally, the authors also point out that facilitating financial limit-setting is central to minimizing harms associated with gambling.

## The Role of Financial Institutions

On the topic of accessing money for gambling and approaches to harm minimization, it has only been very recent that the role of financial institutions, such as banks and financial service providers, has received much attention. First and foremost, it is clear that financial institutions are noteworthy for their ability to track player transactions accurately and enable controls on access to gambling funds. Research evidence shows that self-exclusion, an indicator of a potential gambling problem, is also predicted by the number and amount of gambling withdrawals, and the usage of mobile phones to carry out most billing processes (Haeusler, 2016). The most focused and impactful research on this topic has emerged out of Australia. Swanton and colleagues' (2019) review of the empirical evidence on the role of financial institutions in gambling identified a fundamental role in providing access to gambling funds for land-based and online play. Despite this, the authors also found that most financial institutions in the country did not have specific policies related to gambling-related transactions, such as strategies to identify and assist financially vulnerable customers with gambling problems or those with joint accounts affected by others' risky gambling behaviour. In summary, this study pointed out that most banking customers (86%) never tried lowering their ATM withdrawal limit and less than 20% left their access cards at home as a self-control strategy—leaving an opportunity for financial institutions to provide more responsible gambling support to clients. This and other studies highlighted the importance of awareness of responsible gambling and harm minimization tools, which are statistically predictive of responsible gambling practices (Tong, Chen, & Wu, 2019). In particular, players who were more aware of responsible gambling were more likely to set time and money limits, seek help, self-exclude if necessary, and not treat gambling as an investment strategy.

In recent years, financial institutions in the UK have begun to take a more active role in gambling harm prevention. For instance, one researcher highlighted two significant developments in 2018 (Griffiths, 2018). The first was Monzo Bank's introduction of a blocking application allowing clients to remotely exclude themselves from gambling transactions on their account—a process made straight forward by the specific transaction code given to all gambling-related merchants in the country. Those wishing to turn off the gambling block on their account are required to speak with the customer support team to confirm their intentions and wait 48 hours before the change is affected. Shortly after this program was announced, Starling Bank introduced similar blocking options for their own clients and on their own account management application. Research and evaluation of these and similar programs is still very limited or non-existent.

## SUMMARY: Literature Review

**Controlling access to money can help reduce gambling risk and harm.** The literature review provides a strong confirmation of the relationship between mechanisms for accessing money for gambling, such as ATMs, and gambling risk and harm.

**Removing ATMs from gambling venues has shown mixed effects.** Some studies show that the removal or specific placement of ATMs (typically without suppression features) at minimum distances from gaming areas and out of lines-of-sight may have positive impact of gambling risk and harm. However, other researchers have raised questions concerning effectiveness—especially compared to other forms of responsible gambling measures. Key issues raised have included alternative methods of accessing cash at gambling venues (e.g., EFTPOS) that reduce effectiveness of these strategies and the inconvenience posed to other gamblers not at-risk for problems.

**Cashless and card-based systems show potential for reducing gambling risk and harm.** These systems can also help promote responsible gambling behaviour like limit-setting. However, some research and evaluation evidence demonstrate low growth on the use of these systems *if they are optional* and low utilization of responsible gambling tools—although those who do use them benefit from lowered gambling risk.

**Responsible gambling features embedded in ATMs at gambling venues reflected evidence of similar impact as interventions integrated into EGMs.** Limit-setting and self-exclusion were the main tools highlighted in the literature and the available research and evaluation evidence indicates the potential for positive impacts on minimizing gambling risk and harm.

**Banks and financial service companies enabling clients to block transactions coded to gambling merchants provide validation of limit and self-exclusion features on ATMs in gambling venues.** However, this area of responsible gambling research and evaluation is very new and requires much more investigation to determine impact on harm minimization. In theory, financial interventions may be more effective than venue-specific self-exclusion programs, which many people breach.

## REGULATORY REVIEW

Regulation controlling access to money at land-based gambling venues can be a powerful tool for supporting harm minimization efforts. Most well developed gambling jurisdictions include key legislation and regulations guiding access and availability to money for gambling. Importantly, the form and approach to regulatory control can feature key similarities as well as notable differences.

In order to consider the variety of regulatory options pertaining to accessing money at gambling venues through automated teller machines (ATMs), for instance, a review of several international jurisdictions (i.e., Australia, the United Kingdom, Ontario (Canada), Massachusetts (United States), Austria, Norway, New Zealand, Hong Kong, Macau, Singapore, and Japan) was conducted. This review acknowledges that ATMs in or near gambling venues are not all the same—some will feature gambling safeguards and others

may not. This review is supplemented by key-informant interviews conducted with regulatory representatives and responsible gambling experts in many of these jurisdictions.<sup>4</sup>

Each jurisdiction not only represented a unique mix of gambling industry and regulations, but also varying levels of household income and expenditure on recreation and culture (Table 2). Victoria, Australia and the United Kingdom appeared to spend the most on recreation and cultural expenses, which include gambling, per capita, with daily ATM/EFTPOS<sup>5</sup> withdrawal limits of 500 AUD and 300-500 GBP, respectively. In contrast, Ontario, Massachusetts, and Singapore featured the lowest per capita spending on recreation and culture. The spending ratio in Singapore is most likely a reflection of the substantially higher level of household income. In the US and Canada spending may reflect the major retraction in recreational spending after the 2008 recession, which has not fully returned to pre-recession levels. Japan, Austria, Norway and New Zealand featured moderate levels of spending on recreation, compared to other jurisdictions, and all with the exception of New Zealand have adopted money limits for ATMs/EFTPOS or gaming terminals.

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<sup>4</sup> Key-informant interviews were conducted for Australia, the UK, Massachusetts, Austria, and Singapore.

<sup>5</sup> Electronic fund transfer point-of-sale (EFTPOS) machines differ from ATMs in that you cannot use a credit card to retrieve money and access cards are directly connected to bank accounts, whereas ATM debit cards can and do operate on credit card systems. Both provide personal access to bank funds, but EFTPOS may require staff supervision whereas ATMs are typically automated.

**Table 2: Comparison of Income, Recreational Spending and ATM Limits Across Key Jurisdictions<sup>1</sup>**

Jurisdiction	Median Household Income	Recreation and Culture (spending)*	% Income Spent on Recreation/Culture	ATM Limits
Victoria, Australia	73,788 AUD (2016)	10,536.24 AUD (2017)	14.3%	<b>Gambling:</b> \$200 withdrawal limit per transaction on EFTPOS. Withdrawals cannot be more than \$500 from one card within a 24-hour period
United Kingdom	29,400 GBP (2019)	3879.20 GBP (2018)	13.2%	<b>General:</b> Max withdrawal per day is £300- £500.
Ontario, Canada	74,287 CAD (2016)	3,950 CAD (2017)	5.3%	<b>General:</b> Desjardins ATMs have \$500 per transaction limit; Interac Network (ATMs other than Desjardins, in Canada)- \$1,000 per transaction or the limit of the ATM used (whichever is lower)
Massachusetts, USA	77,378 USD (2018)	3,946.28 USD (2015)	5.1%	<b>General:</b> Max withdrawal per day is \$800 in any one day.
Austria	36,322 EUR (2019)	3,632.20 EUR (2017)	10%	<b>General:</b> There is a limit of around €400 withdrawal per day, which can be extended when you proof sufficient income.
Norway	524,200 NOK (2018)	34,570.62 NOK (2019)	6.6%	<b>Gambling:</b> Norway Mutlix terminals (IVTs) are cashless. Only card-based play. They have global limits of 400 NOK per day /2,200 NOK per month
New Zealand	76,200 NZD (2017)	7,269.48 NZD (2019)	9.5%	<b>Gambling:</b> ATMs banned in casinos. Only EFTPOS allowed and minimum purchase required (the lowest amount of money that needs to be spent on a non-gambling good or service before using EFTPOS to withdraw money). General withdraw limit of 200 NZD
Singapore	111,516 SGD (2018)	4,548 SGD (2018)	4.1%	<b>General:</b> ATMs banned in casinos. Max withdrawal per day is approximately 2,000 SGD, but can be increased to 5,000
Japan	4,420,000 JPY (2016)	322,638 JPY (2019)	7.3%	<b>Pachinko/pachislot (Trust Networks):</b> ¥30,000/day, ¥80,000/month. Only 2 transactions/day <b>Gambling (Casino in IR/ publicly owned gambling activities):</b> ATMs banned inside, but allowed outside venue (even close by)

<sup>1</sup> Information sources are included in Appendix A

\*Recreation and culture is a category of spending standardized in the consumer price index

## Australia

Gambling regulation in Australia is largely established at an individual state level. Generally, the provision of cash advances from a credit card account is highly restricted. With the exceptions of lottery and online betting, the use of credit cards to access gambling funds is restricted in every state. High-stakes and VIP rooms at casinos may provide lines of credit, which are based on background checks and credit cards are not accepted.

This fundamental policy has had implications on how each state regulates access to money through ATMs and other similar devices, but significant variation in regulatory approaches persist. For instance, states like Victoria have banned ATMs in gambling venues since 2012 (with the exception of race-tracks and some casinos). Six years later, in September 2018, the Victorian Commission for Gambling and Liquor Regulation imposed further restrictions on EFTPOS machines. These changes include a \$500 AUD limit for withdrawal in a 24-hour period, direct oversight of withdrawals by gaming staff, and bans on cheque-cashing onsite or near the venue.

Other states such as Queensland and the Northern Territory that do continue to allow ATMs at venues require that they only allow debit withdrawals from chequing or savings accounts (similar restrictions exist for EFTPOS machines). Recent regulatory changes in Tasmania, for instance, have lowered daily ATM withdrawal limits to \$100 AUD in pubs and clubs and \$200 AUD at casinos making them more restrictive than EFTPOS machines in some states.

Additional regulations also exist for the placement of ATMs at gambling venues. In Queensland, ATMs are not permitted to be in close proximity to designated gambling areas or at the entrance of a gambling area. Similar restrictions exist in New South Wales, but despite the requirement to separate ATMs from gambling areas, there are no minimum distance guidelines or cash withdrawal limits.

In South Australia, the government has directed gaming operators to ensure ATMs also promote responsible gambling education. Currently, this form of messaging includes a condensed warning about risks and potential harm from gambling as well as the national gambling helpline number, which must appear at least 20% of the time while machines are idle. Following a transaction, ATMs are also required to print receipts with similar warning messages and the national helpline number.

While not directly tied to regulation, the National Australia Bank—one of the largest financial institutions in the country—recently launched features to block gambling transactions on personal credit and debit accounts in 2020, which customers can choose to enable. Similar to features previously introduced by financial institutions in the US and UK, this program enables restrictions on transactions connected to sports betting, casino games, lottery tickets, and online gambling. These optional restrictions would apply to NAB ATM use but would not, however, apply to 1) EFTPOS transactions, 2) overseas use, 3) cash withdrawals using a NAB Visa-Debit card, 4) transactions at venues that are not identified as gambling merchants, and 5) transactions made while NAB online verification systems are down. Revoking an account block would require online or telephone confirmation and a 48-hour waiting period before taking effect.

## Interview Findings (Victoria, Australia)

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An in-depth interview with a representative from a government-affiliated responsible gambling organization in Victoria, Australia was conducted. In response to how access to money at land-based gambling venues is regulated and managed, the informant notes that the removal of ATMs in 2012 saw the increased use of EFTPOS machines as well as limits on their use. These machines are made available at bars and restaurants located inside of casinos and are not promoted. In addition, limited access to ATMs is allowed in casinos, but must be located a minimum of 50 metres from the gaming floor entrance.

With regard to money access safeguards noted in the document review, the interviewee pointed out that codes of conduct include requirements to respond to signs of gambling distress. One such sign of distress is the observation of gamblers using machines to take out cash two or more times in a day—such occurrences would be recorded in an incidence report. When asked which regulatory features are the strongest in Victoria, Australia, the informant stated that the removal of ATMs and limitations and requirements around EFTPOS withdrawals as well as the inability to use credit cards have had a substantial impact on minimizing risk and harm. However, EFTPOS machines have increasingly begun to take on the characteristics of ATMs in appearance and function, emphasizing greater privacy in transactions, which has challenged the aim of reducing risk from money access methods. In addition, the provision of “Reserved” signs for EGM players has undermined the placement of EFTPOS machines away from gaming floors as gamblers no longer have to functionally break away from their gambling sessions.

When asked about recommendations for future regulatory development, the informant noted several best practices endorsed by his/her organization. These included measures such as:

- Checking self-exclusion lists when a customer uses EFTPOS machines;
- Having EFTPOS machines further away from the gaming floor;
- Limiting EGM reservations to five minutes or less; and
- Cash-only play, barring the use of debit payments to purchase EGM credits or casino chips directly from machines or dealers.

## Interview Findings (Queensland, Australia)

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Given the substantial differences in state approaches to money access policies across Australia, another interview was carried out to demonstrate key differences in alternative approaches. Unlike Victoria, Queensland does allow the placement of ATMs in gambling venues, as described by a senior regulator in the Office of Liquor and Gaming Regulation.<sup>6</sup>

The provision of ATMs in gambling venues, according to the key informant, includes certain restrictions. These restrictions include the prohibition of credit withdrawals. In addition, regulatory guidelines require that ATMs not be installed in close proximity to or visible from areas where gambling is conducted. Other legislated harm minimization provisions in gambling venues include a self-exclusion program, responsible

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<sup>6</sup> See Appendix B for a supplementary reflection on TN ATM suppression features from this informant

gambling staff training, statewide limits on the number of electronic gambling machines in venues, betting limit features on games, problem gambling information and signage, and more.

According to the regulatory informant, there are some challenges to money access policies in Queensland gambling venues. For instance, while credit card withdrawals are prohibited, many ATMs enable access to credit cards by default. Inspecting and verifying credit withdrawal settings and ensuring ATM technicians do not enable this function in gambling venues is the subject of ongoing discussion with the regulator and ATM providers. In other instances, the use of credit cards for cash advances disguised as food purchases at venue eateries has also emerged as a potential issue.

In consideration of future policy development related to money access for gambling, the regulator is currently looking at proposals for cashless gambling—gambling payment options not requiring the withdrawal of cash to play. This issue has gained significant interest since the coronavirus pandemic began. In addition, the regulator is currently working with banking and financial institutions to help increase awareness of options available to customers that may wish to restrict transactions for gambling purposes.

## United Kingdom

In the UK, ATMs are required to be located away from gambling areas. This physical separation would require gamblers to leave a game, either table or machine, in order to access additional funds. During this break in play, regulators anticipate that gamblers may reflect on their gambling behaviour before staking further funds, which they may not be able to afford losing. Despite this requirement, no guidelines are given on minimum ATM distance from gambling areas. However, as of April 2020, the Gambling Commission will ban the use of all credit cards for both online and land-based gambling.

### Interview Findings

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In an interview with a regulatory informant from the British Gambling Commission, current requirements may soon be challenged and forced to change, becoming far more protective. At the moment, gamblers can use debit or credit cards to withdraw funds from ATMs located in places where they are required to stop and leave gambling areas—a requirement considered to be a strong safeguard by the informant. While debit cards are not allowed for the purchase of EGM credits, they are permitted for purchasing chips used for playing casino table games. Given the increasing levels and public awareness of gambling risks and harms in the UK, the regulator is currently exploring options for assessing whether customers can afford levels of gambling expenditure, but has not yet planned any additions to the regulatory framework. One particular emerging concern has been the increasing use of cashless technologies to facilitate debit payments at table games between players and dealers without limitations. Although the regulator has instructed operators to stop this practice, if this trend persists, then the regulator plans to intervene with stronger measures.

## Ontario – Canada

In Canada, each province regulates its own gambling industry, which can be affected by the unique variety of games offered and types and numbers of venues available. For instance, in Ontario, hosting the largest of the Canadian gambling industries, ATMs are allowed in venues such as casinos, race tracks and bingo halls—ATMs are only restricted in charitable gambling halls. In casinos for instance, ATMs feature responsible gambling messaging displaying the problem gambling helpline and the tagline “know your limit, play within it.” The helpline number is also printed on ATM transaction receipts. In a recent pilot program, some gambling venues have tested responsible gambling messages from Credit Canada (a credit counseling organization) to encourage players to reflect on gambling expenditures, though results are not yet public at the time of this report. Despite the provision for operators to introduce minimum distance requirements for ATM placement in Ontario casinos, as stated by the Gambling Act, this intervention has not been adopted in practice. In contrast, Alberta’s regulatory framework *does* impose minimum distance requirements for ATMs of at least 4.5 meters<sup>7</sup> from video lottery terminals (VLTs) in non-casino venues such as bars and restaurants.

## Massachusetts – United States

Like Canada and many other nations, the regulation of gambling in the US is carried out on a state-by-state basis. States may require that casinos not accept government-issued cheques, or ATM transactions, or even credit and debit cards.

Massachusetts is one state in particular that has done a lot of regulatory development around accessing money for gambling. Recent proposed amendments to its gambling regulation would restrict ATMs on the gambling floor where slot machines and table games are located. Under the draft regulation, ATMs would only be accessible in hallways, at least 15 feet (4.5 meters) from gaming areas. In accordance with the state’s Responsible Gambling Framework (version 2.0), operators are also encouraged to participate in ATM exclusion programs that allow gamblers to block access to cash across participating financial institutions. Programs such as Everi’s Personal Self Transaction Exclusion Program (STeP) stand out as an example. This program allows clients to block access to cash across the company’s national network of ATMs, cash access kiosks, and booth services. This program also works in conjunction with a casino’s own exclusion program. To date, Everi’s blocking feature applies to 1,000 casinos through the US, Canada and the Caribbean.

### Interview Findings

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In Massachusetts, a regulatory informant noted that access to money is tightly controlled, although some practical issues have emerged. For instance, in smaller slot-only venues, the use of older machines has precluded the option to use limit-setting tools and pop-up reminders typically available on EGMs at

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<sup>7</sup> No information was found on why 4.5 meters was adopted as a distance requirement

casinos. While credit is available through operators, regulations require all applicants to qualify for a credit limit of \$10,000 USD, even if they want to receive smaller sums of \$1,000 USD — this process involves a complete background check with a credit bureau.

The most significant challenge faced by the regulator appeared to be the presence of loopholes in accessing money at ATMs through credit accounts. Although the use of credit cards to gamble or access money at venues is prohibited, if a card has a chip and requires a pin to access funds, ATMs at state venues are unable to distinguish credit accounts from debit accounts and block illegitimate transactions.

## Austria

The Austrian Ministry of Finance imposes strict controls over the gambling industry, which affects access to money and limits on spending. In small venues where only 1-3 slot machines are operated, maximum stakes are €1 and the maximum allowable session time is 3 hours during a 24-hour period. This system is enforced by mandatory use of player cards to track gambling time and expenditures. In larger venues with over 10 slot machines, maximum stakes are €10 and maximum gambling time per day is 2 hours. In these larger venues, such as casinos, patrons are required to identify themselves at the entrance and submit to an obligatory credit check in case they are financially unable to gamble. If there is reason to believe a person can no longer afford to gamble, the operator can negotiate a stricter maximum number of visits or exclude the patron for a specific period of time or indefinitely.

### Interview Findings

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A regulatory informant with the Gambling Protection section of the Federal Ministry of Finance in Austria reiterated the significant gambling measures instituted in this jurisdiction. For instance, gamblers are required to verify the source of their funds if they stake €2,000 per day or more at casinos and slot machines cannot be linked to bank or credit accounts. Furthermore, ATMs are not permitted inside casinos or non-casino venues and can only be accessed outside of facilities. ATMs in the vicinity of casinos and slot venues do not feature any special responsible gambling options, but do have general limits of approximately €400 per day, unless increased at a bank branch. Withdrawals using credit cards are permitted. Additionally, slot players have the option of withdrawing cash at cash desks and must use ticketing machines, which slot machines use to function. Any remaining tickets can be reimbursed for cash using ticketing machines.

In addition to access to money measures, casinos and their staff are authorized to exclude anyone for any reason, but typically when patrons exhibit signs of excessive gambling or a problem. If an individual is flagged, the casino can perform a credit check through an independent organization and be questioned about their gambling behaviour and background. Based on the findings and on the cooperation of the patron, the casino may impose a ban or visitation limit. The informant also noted that the legal framework for these gambling requirements and restrictions represent the most effective pieces of their approach to gambling protection.

Although no specific future developments in gambling regulation or access to money policy for gambling were noted, the informant pointed out that the legal provisions for gambling are frequently reviewed in order to identify and respond to new challenges in a timely manner.

## Norway

Although Norway does not feature casinos or venues with table games, its gambling regulations share many significant similarities with Austria. For instance, both countries require the use of personal player cards to gamble on EGMs like slots. This requirement aims to provide greater enforcement of legal age restrictions and facilitate self-exclusion and restrictions on gambling as well as maximum limits on gambling losses. In addition, Norway's card-based system allows winnings to be automatically transferred to a gambler's bank account, which reduces the likelihood that players will use other gamblers' player cards to circumvent account limits for losses. Since 2006, banknote acceptors on EGMs have also been banned.

Norway's cashless system excludes the use of ATMs for cash-based gambling. Instead, gamblers are required to transfer funds to a specific gambling account from their personal bank accounts in order to use EGMs. In addition, machines include maximum loss limits of 400 NOK per day and 2,200 NOK per month. Gamblers are also able to set voluntary limits on hours spent at machines per day, per week or per month. Options for self-exclusion are also embedded in EGMs for a period of time or permanently—revocation of permanent self-exclusion would require a waiting period of 100 days before being lifted.



## New Zealand

Currently, New Zealand has imposed bans on ATMs and EFTPOS machines in the gambling area of venues. In addition, EGMs feature embedded warning messages, clocks, bet limits, banknote acceptor bans, and the provision of player information reports. Like several other jurisdictions previously mentioned, New Zealand's gambling regulations include maximum stake and prize limits on EGMs as well as forced interruptions after 30 minutes of continuous play—key messages include information on duration of play and the amount of money spent, net wins, and losses.

## Interview Findings

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A regulatory informant for New Zealand's Department of Internal Affairs noted that all gambling controls are guided by public health principles, including controlling the growth of gambling and minimizing and preventing associated harms. With regard to accessing money for land-based gambling, ATMs are banned in casinos, clubs and pubs. However, EFTPOS transactions, similar to those in Australia where employees must be present to facilitate withdrawals, are permitted and these machines do not include any responsible gambling features. Moreover, operators are prohibited from providing credit for gambling of any kind with penalties for non-compliance set at \$10,000 NZD. Currently, as the informant points out, receiving useful information from operators to help in assessing the effectiveness of regulatory measures is challenging. Future regulatory developments were said to include addressing limitations in oversight, such as the potential adoption of facial recognition technology to assess in-venue risks and improve self-exclusion adherence.

## Macau

In 2017, Macau underwent significant changes to ATM access regulations at casinos in the jurisdiction. Included in these changes was the introduction of facial recognition technology and identification cards at ATMs to facilitate fraud detection, but also potentially enable harm minimization measures. The Macau Monetary Authority has also limited ATM cash withdrawals for China UnionPay cardholders to approximately \$650 USD at a time and \$1,300 USD per day.

## Singapore

According to Singapore's Casino Control Act, ATMs are prohibited within casinos. Because both casinos in Singapore (Marina Bay Sands and Resorts World Sentosa) are integrated casino-resorts, ATMs are typically accessible just outside of the venue entrance. Due to the mandatory identification process at the entrance to casinos, operators are able to enforce exclusions (operator, self and third-party exclusions) as well as visit limits.

## Interview Findings

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A representative of the Casino Regulatory Authority of Singapore expanded on several areas of gambling regulation. For instance, in addition to bans on ATMs within casinos, operators are not allowed to provide chips on credits unless a person is either a non-Singaporean citizen or a premium player. Premium players are required to open a cash account with a credit balance of at least \$100,000 SGD. Permanent residents are further required to enter a credit qualifying program to become a premium player.

For ATMs outside of the casino, they must not be visible from the entrance of slot machine rooms and the provision of cash on credit is prohibited. Additionally, ATMs outside of casinos do not feature any special safeguards, but responsible gambling signage is posted in the area and elsewhere. For lottery, sports

betting and horse betting operations, gambling on credit and access to ATMs are prohibited, but EFTPOS systems are allowed to dispense funds.

Other provisions to prevent excessive gambling include:

- Various levies (entry, day, and annual) for permanent residents;
- 21 and under age restrictions;
- Casino exclusion programs; and
- Visit limitations

According to the informant, restrictions on credit and the prohibition of ATMs within gambling venues were viewed as the strongest measures for promoting safer access to money for gambling.

Future development as well as policy challenges appeared to focus on the growing preference for cashless electronic payment systems and how to ensure effective safeguards.

## SUMMARY: Regulatory Review

This review has demonstrated that there are many different ways of addressing gambling harm related to accessing money at venues. Also, there is no consensus on a single approach to responsible gambling best practice in this area. Generally, jurisdictions where ATMs are allowed inside gambling venues typically feature some forms of responsible gambling measures, although withdrawal limits were not necessarily common (Table 3).

**Table 3: Jurisdictions where ATMs are allowed inside the venue**

	Responsible Gambling Features	Responsible gambling Functions are voluntary	Limits in ATM withdrawals
United Kingdom	x	x	x
Ontario, Canada	✓	x	x
Massachusetts, USA	✓	✓	x
Victoria, Australia*	✓	x	✓
Japan (Pachinko)	✓	✓	✓

\*EFTPOS for Victoria, Australia

In jurisdictions where ATMs were not allowed inside gambling venues, they were typically located nearby or close to the entrance (Table 4). In Singapore, ATMs are located within fifty feet of casino entrances and in Japan, ATMs can often be found in convenience stores located next to or nearby pachinko parlors.

The most well-adopted regulatory measure across the jurisdictions included in this review was the prohibition of personal credit cards to withdraw gambling funds. This prohibition was near universal and aims to cap the absolute limit of gambling withdrawal and expenditure to what players have access to in their chequing and savings accounts. With this said, however, loopholes in some jurisdictions, such as Massachusetts where ATMs still approve prohibited credit card transactions when using electronic chip and pin access, undermine the impact of this regulatory control.

**Table 4: Jurisdictions where ATMs are not allowed inside the venue**

	Responsible gambling Features	Close to entrance/venue
Austria	x	✓
New Zealand	x	✓
Singapore	x	✓
Japan (Casino in IR and publicly owned gambling activities)	x	✓

The introduction of EFTPOS machines and the limitation or removal of ATMs from venues has also been a common regulatory approach to minimizing harm from excessive gambling withdrawals and expenditures. Jurisdictions such as Victoria, Australia and New Zealand have indicated that this type of approach can be effective. However, as EFTPOS access increases to make up the gap left by ATM removal and these machines become more similar to ATMs in the absence of extensive responsible gambling features, it is not clear if regulators' goal of minimizing risk and harm from money access at land-based venues can be supported in the long-term. In some instances, such as Tasmania, Australia, the allowance for ATMs with much lower withdrawal limits than EFTPOS machines in other states and bans on the use of credit cards could have similar or greater protective effects.

The use of mandatory cashless systems has been another regulatory strategy for minimizing excessive gambling losses. This approach has seen adoption in some European countries, such as Norway and Austria. Due to the heightened control of and ability to monitor gambling behaviour at an individual level, these systems currently appear to be the most protective as they facilitate system-wide monitoring of gambling behaviour and interventions to prevent gambling harm, such as time and money limits, cooling off periods and bans. Notably, this system does not require any regulatory interventions specifically targeting ATMs at venues due to the cashless nature of play.

Similarly, mandatory identity checks at entrances to gambling venues combined with other money access controls were apparent in some jurisdictions. Singapore stood out in this regard with strict identity checking each time a patron enters a casino. This provision has enabled the regulator and operators to maintain control over self-exclusion breaching or visit limits. In addition, the restricted access to ATMs inside the casino provide a physical and administrative barrier to those attempting to withdraw funds several times during a gambling session.

More recently, the integration of responsible gambling features directly on ATMs located at gambling venues have either begun to be introduced in some jurisdictions or have increased in their availability. As a separate and sometimes coordinated effort with gambling operators by banks to give customers greater control over gambling expenditures, options to block or limit gambling transactions appears to be a direct harm minimization method. However, no evidence that this approach has ever been adopted by a gambling regulator as a requirement was found.

## SITUATION IN JAPAN: THE PACHINKO INDUSTRY

It is estimated that Japanese citizens spend over ¥20 trillion playing pachinko each year. As pachinko play is a major component of the current gaming market in Japan, and with new legislation allowing the development of casinos in the country, there is an increased focus on responsible gaming.<sup>8</sup> Companies supporting players and operators have also expressed interest and demonstrated a commitment to their own responsible gaming practices.

Given the early and ongoing development of Japan's integrated casino-resort industry, key regulations and guidelines are either very new or still being deliberated on. According to the Integrated Resort Implementation Bill, ATMs are not permitted within casinos in Japan—ATMs that may be located around a casino will only be allowed to provide debit withdrawals and not credit. In addition to these regulations, operators are required to limit Japanese residents to three visits per week and 10 per 28 days.

Pachinko and pachislot fall under the entertainment and amusement business category. In order to operate, a permit or license issued by the local public safety commission under the Amusement Business Act is necessary. Legally, Pachinko/pachislot is not considered gambling and in Japan it is the only form of gaming that is operated by private entities through a licence.

The Pachinko industry recognized the existence of *problem gambling* in late 1990 at the seminar held in the International Gaming Institute of University of Nevada, Las Vegas. Subsequently, the *Recovery Support Network* helpline was launched with the support of Dr. Naoyuki Nishimura and the industry association in 2006. Since then, the pachinko industry association has been working on problem gambling/gaming prevention and harm minimization.

Trust Networks Inc. is a principal example of this phenomenon.

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<sup>8</sup> Responsible gaming is used here in place of responsible gambling given the legal definition of pachinko as a game and not gambling. However, the issues and practices presented in this section are considered interchangeable due to the similar characteristics of pachinko and gambling.

Trust Networks ATMs with responsible gaming limit features (see Table 5) can be found at several pachinko facilities and although these functions are set voluntarily by the provider, general preventive measures are required by the National Police Agency.

Trust Networks Inc. is a Japanese company that operates financial transaction services including the provision of automated teller machines (ATMs) for the entertainment industry and is the only service provider in pachinko parlors.

With approximately nine-hundred ATMs installed in pachinko parlors across Japan, Trust Networks Inc. has demonstrated a commitment to responsible gaming by installing various suppression functions on their ATMs to help prevent excessive withdrawals and provide responsible gaming support information.

**Table 5: Trust Networks Inc. ATM Suppression Features for Preventing Gambling-Related Harms**

Suppression Feature	Description
ATM display messaging	Warning display prior to a transaction with an responsible gaming message and helpline number; customers must acknowledge the message before proceeding with the transaction
Withdrawal limits	¥30,000/day; ¥80,000/month; only two transactions per day
Withdrawal controls	Credit cards are prohibited and account balance check prior to transactions to verify available funds
Withdrawal notifications	Notification of daily withdrawal total; notification of total amount and prompt to confirm withdrawal when amount exceeds ¥40,000 and ¥60,000 in a month; warning message appears when the customer tries to withdraw twice in a one day
Receipt messaging	Helpline URL and telephone number printed on the back of ATM receipts
Advertising ban	Promotion of ATMs outside of pachinko facilities is prohibited
Voluntary self-exclusion	Customers have the option of banning themselves from ATMs

Responsible gaming features embedded in Trust Networks Inc. ATMs were similar to those in electronic gambling machines showing evidence of positive harm minimization impacts. Trust Networks Inc. ATMs reflect almost all of the typical and more recent harm minimization tools in the research literature, including self-exclusion.

## SURVEY OF PACHINKO PLAYERS

The evidence on pachinko players and the gambling risk they experience is not extensive, though more recent attention has clearly established a strong risk association with this activity (Akiyama et al., 2019; Ino, Iyama, & Takahashi, 2020). Our understanding of pachinko players and their money accessing behaviours and preferences for responsible gaming supports is effectively non-existent. In an effort to address this critical gap in knowledge, an online survey of adult pachinko players who have used an ATM to withdraw money specifically for gambling on pachinko and pachislot in the past 12 months was conducted. The survey recruited 1,000 players from areas with more or less accessible to pachinko parlors hosting Trust Networks Inc. ATMs with suppression features in order to gather broad evidence of perceptions and behaviours.

Survey questions and analysis focused on five key areas providing an understanding of players' background, preferences, experiences, and alignment with responsible gaming practices. Specifically, these areas of inquiry included: *sample characteristics, pachinko gambling risk, player gambling preferences, utility of responsible gaming suppression features, and impact of Trust Networks Inc.'s specific suppression features on player risk and behaviours.*<sup>9</sup>

### Sample Characteristics

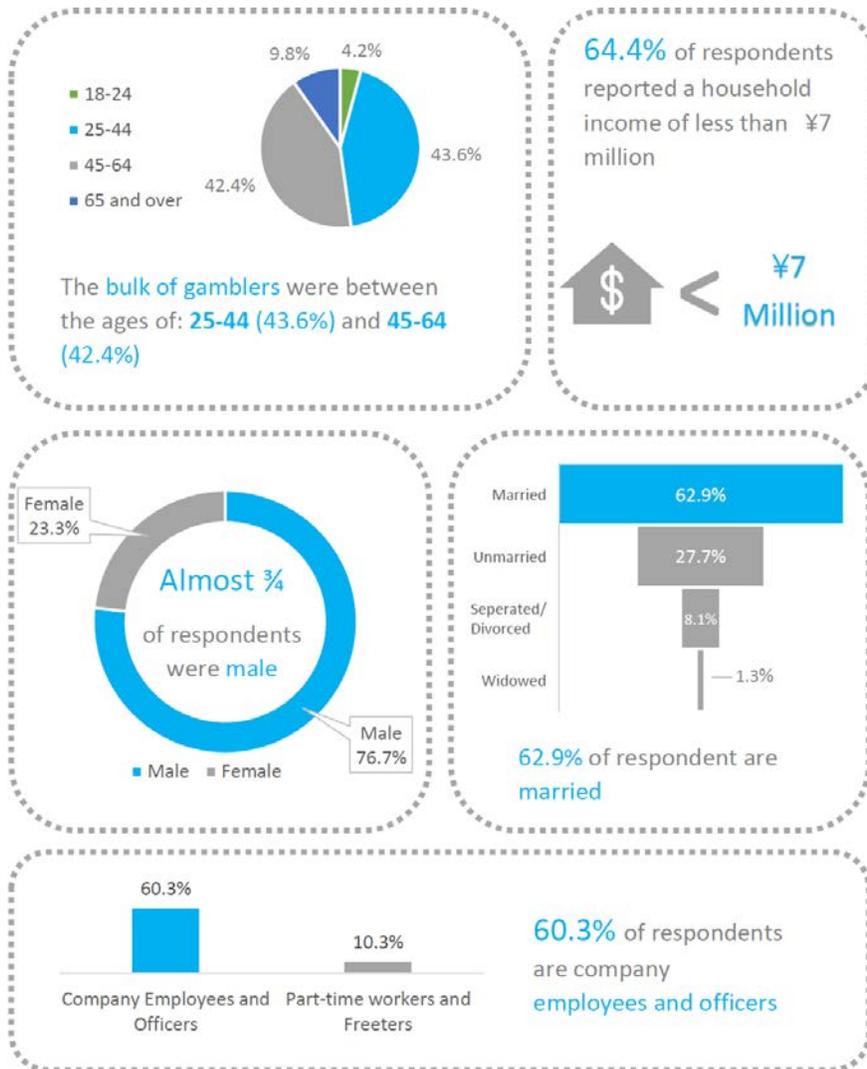
The key sample characteristics included demographic information on age, income, gender, marital status, and employment (see Figure 2). Overall, 85% of pachinko players were between the ages of 25 and 64, while young adults (18-24 years) made up less than 5%. The vast majority of survey respondents (64.4%) also reported a household income less than ¥7 million. As has been reported in other studies, males made up the greater proportion of pachinko players, whereas females represented less than one-quarter of the sample. Approximately two-thirds of the sample reported being married and about 27% were unmarried. Finally, over 70% of players noted being employed, with the vast majority being company employees and officers.

These findings indicate that the majority of pachinko players in the sample are well established adults with features of a developed lifestyle, including stable employment, above average income, and marital relationships.

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<sup>9</sup> See Appendix C for the survey questionnaire used

**Figure 2: Overview of Pachinko Player Sample Characteristics**

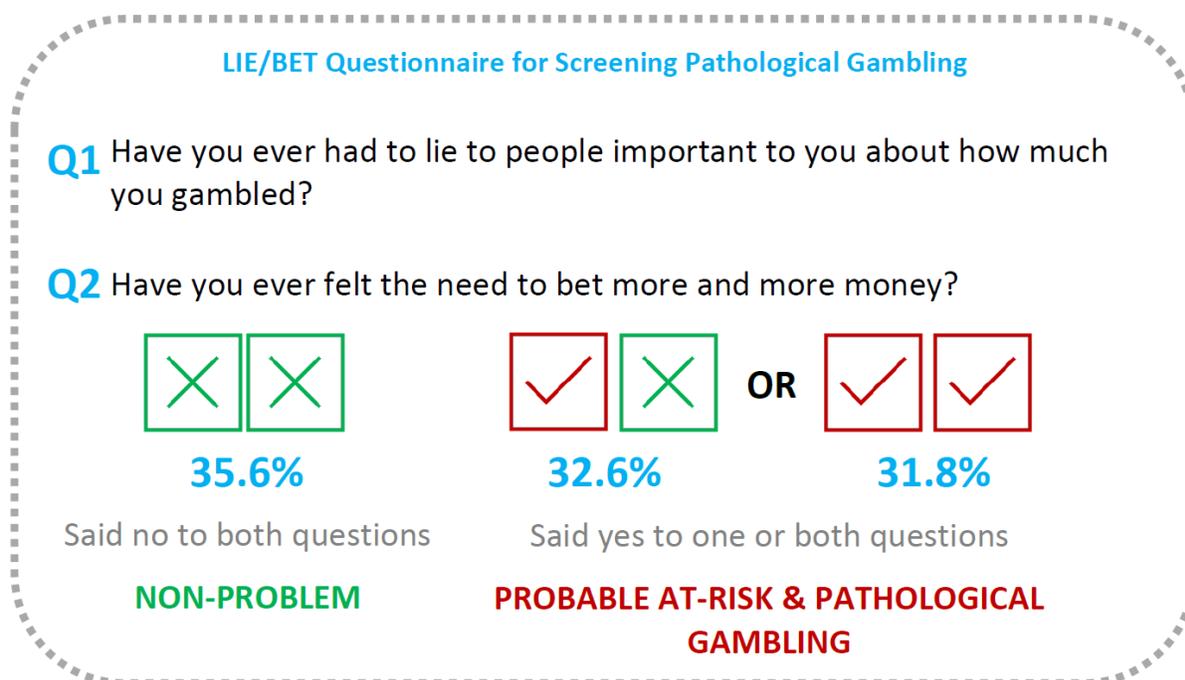


## Pachinko Player Risk

Assessing gambling risk amongst pachinko players is central to determining the need for suppression functions on ATMs as well as other responsible gaming interventions, support services and information. Those who are included in high risk gambling categories are an especially important group because they are most likely to experience gambling harms, such as excessive financial losses and other negative social and health outcomes. Understanding who these individuals are, how they behave as well as their attitudes and interest in responsible gaming features is vital to developing effective prevention mechanisms.

In the responsible gaming field there are many validated screening tools for assessing player risk. Most of these tools<sup>10</sup> involve several questions, giving them the ability to discern between low, moderate and high risk players. For the purposes of this study, a much shorter assessment tool with the ability to detect those *who are not* at risk and those *who are* high risk was considered ideal. The LIE/BET Questionnaire (Figure 3) consists of only two questions and has been thoroughly validated as a reliable screening tool for detecting non-problem gambling (Götestam, Johansson, Wenzel, & Simonsen, 2004). According to this tool, any scores that exceed the threshold for non-problem gambling (i.e., 1 or 2) are considered predictive of *both* at-risk and pathological gambling, as a combined category. However, for the purposes of examining those at *highest risk* in this study, respondents confirming both LIE/BET questions (score=2) were labelled **high risk players**.

**Figure 3: Description of the LIE/BET Questionnaire**



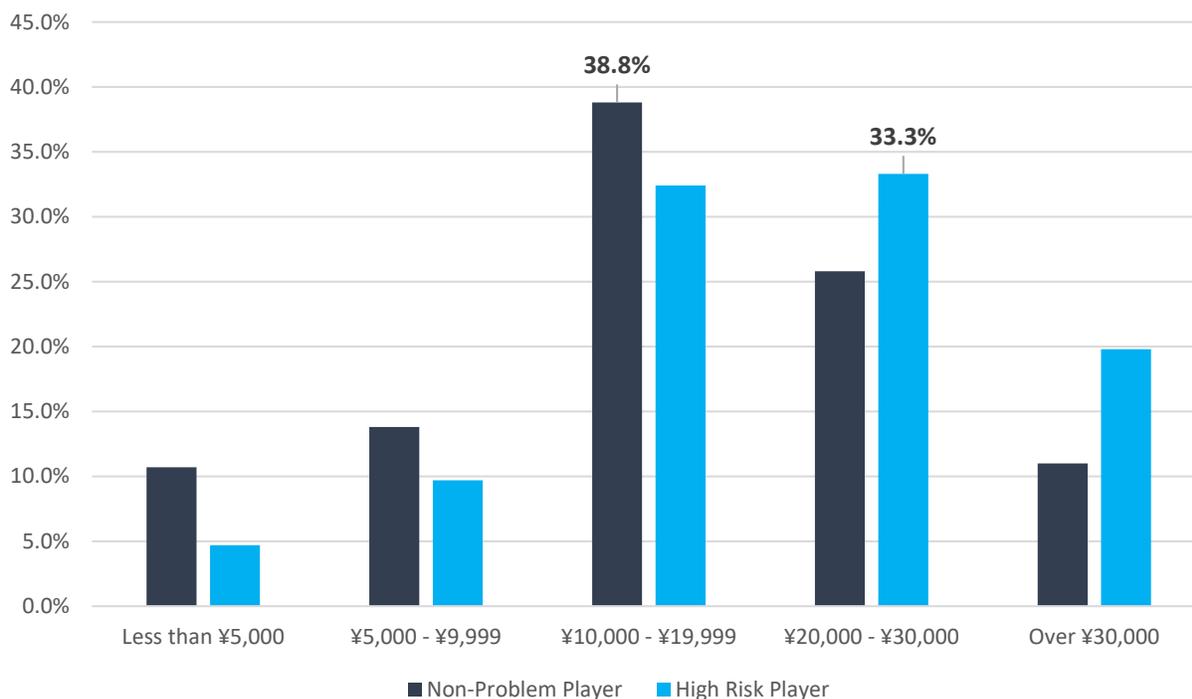
**Note:** The LIE/BET Questionnaire’s technical definition of any scores between 1-2 is *probable at-risk and pathological gambling*. For the purposes of this study, players screened at the highest risk (score=2) are characterized as *high risk players*.

As presented above in Figure 3, nearly one-third of the pachinko player sample were assessed as being high risk players. Compared to non-Japanese gambling populations surveyed by the Responsible Gambling Council and other researchers, the prevalence of high risk play is approximately 2-3 times

<sup>10</sup> Other widely used and validated screening tools include the Problem Gambling Severity Index (PGSI), the South Oaks Gambling Screen (SOGS), the Short Gambling Harms Screen (SGHS), and the DMS-5 gambling disorder diagnostic tool. Scores can only be compared within specific tools and may be constrained by population-specific factors, such as language and cultural beliefs. Key differences that change the nature of tools include prompts such as “Have you ever” (e.g., LIE/BET questionnaire) and “In the past year” (e.g., PGSI)

higher.<sup>11</sup> Recent Japanese research (Akiyama et al., 2019) on pachinko players using multiple risk screening tools (i.e., PGSI, SOGS and DSM-5) found high risk gambling prevalence between 30% and 50%, which appears consistent with this current study, though comparison of scores across tools are not necessarily reliable. Other Japanese studies using highly modified screening tools, such as the Pachinko-Pachislot Playing Disorder Scale (PPDS) have reported upwards of 3.8% ( $n=558$ ) “suspected gambling disorder” in player samples (Horiuchi, Sakamoto, Akiyama, Shoun, & Nishimura, 2018). Overall, further development of validated tools specific to Japanese gamblers and prevalence study are needed to ensure the accuracy of risk estimates.

**Figure 4: Typical ATM Withdrawal Amount Per Day for Non-Problem Players and High Risk Players<sup>12</sup>**

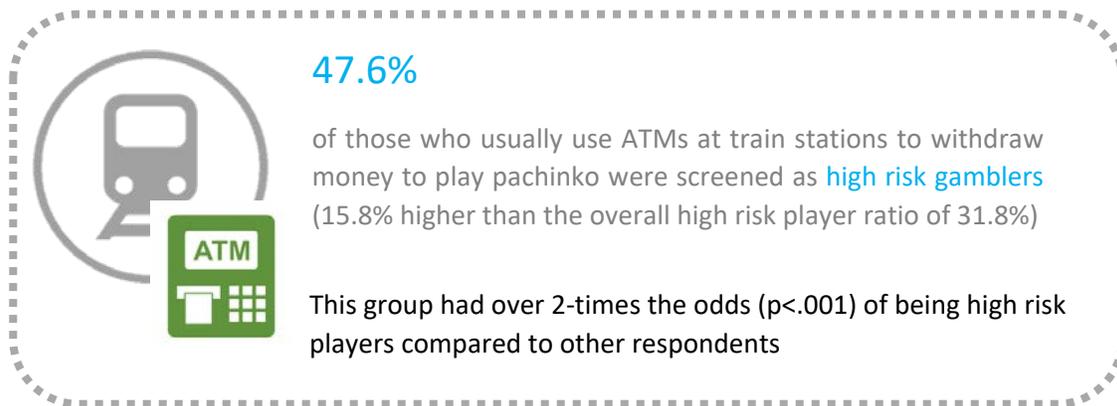


The most common daily withdrawal amount among all pachinko players was between ¥10,000 and ¥19,999. High risk players typically withdrew much more. The median amount withdrawn to play pachinko among high risk players was between ¥20,000 to ¥30,000, though nearly 20% of high risk players typically withdrew over ¥30,000—double the proportion of non-problem gamblers (see Figure 4).

<sup>11</sup> This is a nominal comparison based on crude estimates of high risk gambling or gameplay

<sup>12</sup> This bar graph includes ordinary ATMs without suppression functions

**Figure 5: Train Station ATM Usage Among High Risk Pachinko Players**



Among high risk players, accessing money for pachinko play at ATMs located at train stations was most popular (see Figure 5). Those who accessed money at train stations to play pachinko were also two-times more likely to be high risk compared to respondents typically accessing money at other locations. A large proportion of high risk players also demonstrated typical behaviour of accessing money at pachinko parlors (Figure 6).

**Figure 6: Pachinko Parlor ATM Usage Among High Risk Pachinko Players**



**Note:** The value 37.6% represents the proportion of respondents who usually access ATMs for pachinko at pachinko parlors who are high risk players. The proportion of those who have used an ATM at a pachinko parlor with *any* suppression feature and have been screened as high risk players is 30.2%.

The rate at which high risk players visited ATMs to access money for pachinko was also higher than that of non-problem players (see Figure 7). In this instance, over 30% of high risk players visited ATMs more than once per day to withdraw money for gambling, whereas low risk non-problem players were far less likely to visit an ATM more than once per day.

**Figure 7: ATM Transaction Rate Among High Risk and Non-Problem Player**



High risk players were also asked about the perceived utility and their preference for ATMs with suppression functions.<sup>13</sup> Overall, 51% of high risk players (46.8% of all respondents,  $n=468/1,000$ ) agreed that convenience stores located near pachinko parlors should have ATMs with suppression features.<sup>14</sup> 42.5% of high risk players (42.6% of all respondents,  $n=426/1,000$ ) also agreed that they would prefer to use ATMs inside pachinko parlors with suppression features while 36.8% of high risk players (32.5% of all respondents,  $n=325/1,000$ ) agreed that they would prefer using convenience store ATMs with suppression features.

Among only respondents who recalled using an ATM with *any* suppression feature to access money for pachinko, 41.4% of high risk players (40% of all respondents,  $n=246/615$ ) agreed that convenience stores located near pachinko parlors should have ATMs with suppression features. 40.9% of high risk players (40.7% of all respondents,  $n=250/615$ ) also agreed that they would prefer to use ATMs inside pachinko parlors with suppression features while 32.8% of high risk players (29.8% of all respondents,  $n=183/615$ ) agreed that they would prefer using convenience store ATMs with suppression features.

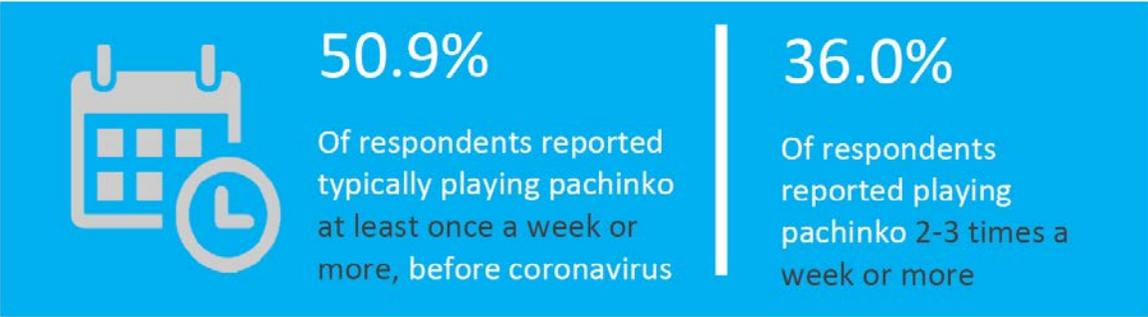
## Player Preferences

Analysis of player preferences attempted to demonstrate pachinko and other gambling behaviours as well as money access behaviours among the sample overall (i.e., not focused on high risk players). Generally, pachinko play among survey respondents was quite frequent, with over 50% playing at least once a week or more (see Figure 8). Approximately one-third of respondents reported even more frequent play that was almost daily.

<sup>13</sup> See Appendix D for the distributed agreement by cohort on the need for ATMs with suppression at convenience stores near pachinko parlors

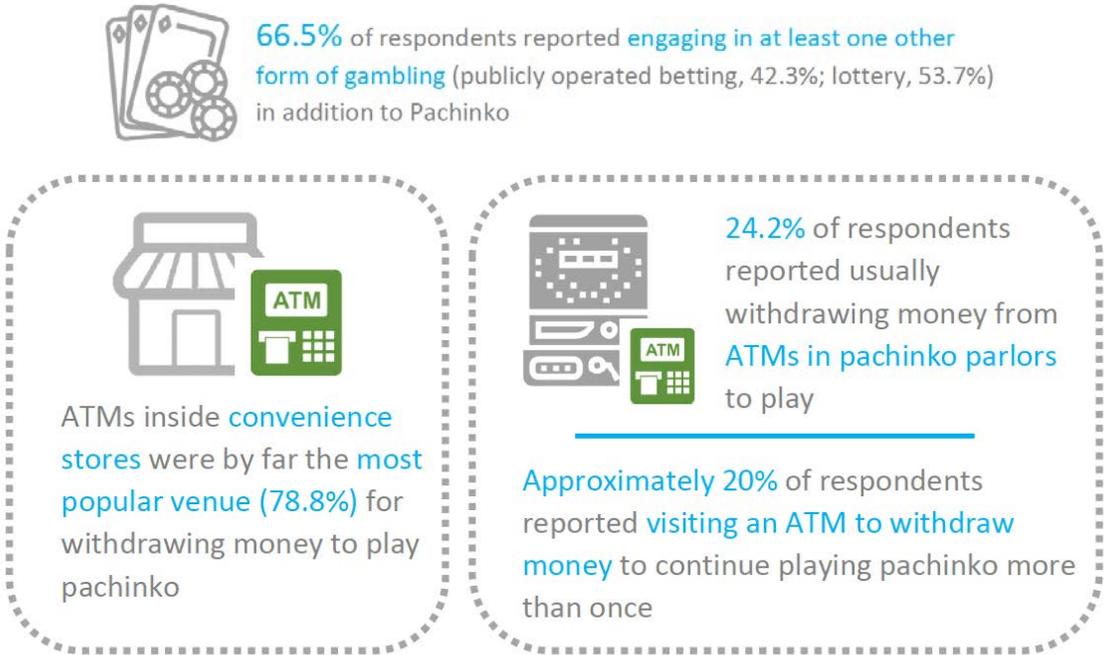
<sup>14</sup> High risk players = 318

**Figure 8: Typical Frequency of Pachinko Play**



It was also apparent that pachinko players often engage in other forms of gambling (see Figure 9). For instance, two-thirds of survey respondents reported playing at least one other form of gambling. Lottery (53.7%) and publicly operated betting (42.3%) were the most popular forms of gambling in addition to pachinko.

**Figure 9: Overview of Pachinko Player Preferences for Gambling and Money Access**



Overall, players typically used ATMs inside convenience stores, which are often located near pachinko parlors, to access money for their game play. Among the total sample of respondents, less than one-quarter accessed money through ATMs at pachinko parlors—a utilization rate that was approximately 13% lower than high risk players.

## Utility of ATM Suppression Features

The utility of ATM suppression features, as perceived by pachinko players and ATM customers, is crucial to assessing the practicality, appropriateness and usage in practice. For the purposes of this study, survey respondents were asked specifically about suppression features embedded in Trust Networks Inc. ATMs located in pachinko parlors, such as withdrawal limits.

Overall, three-quarters of pachinko players surveyed *agreed* that suppression features on ATMs, which are designed to help prevent excessive financial losses, were helpful in principle. Specifically, the most useful ATM suppression features perceived by players included 1) *credit card use prohibition* (58.7%), 2) *daily withdrawal limits* (57.8%), 3) *daily transaction limits* (55.1%), 4) *bank account balance checks* (53.8%), and 5) *monthly withdrawal limits* (52.9%).

Notably, 44.8% of respondents *agreed* that voluntary self-exclusion (i.e., the process of self-banning from using ATMs at pachinko parlors) was a helpful feature. Given this feature was only introduced recently, during the study period, current perceptions by pachinko players represent a strong baseline for assessing the feature's validity and potential future impact.



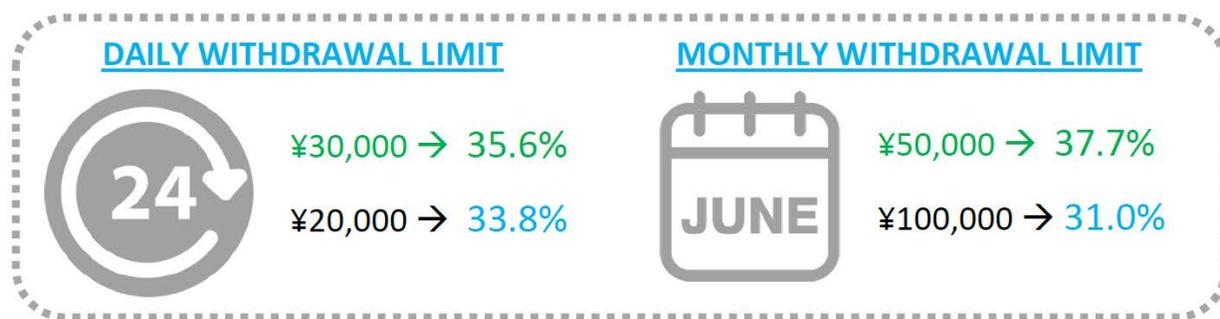
Overall, 75.4% of respondents agreed that some form of ATM suppression function helps prevent withdrawal overuse

### ***Trust Networks Inc. Voluntary Self-Exclusion Program***

*Informational program leaflets and Document Request Forms for registering for self-exclusion are made available at partnering pachinko parlors. Trust Networks Inc. and the account holder wishing to enroll in the program together setup the exclusion, which lasts one year and bans the player from accessing funds from ATMs located in pachinko parlors. During the first year, self-exclusion cannot be revoked, but can be cancelled one month ahead of the first year anniversary and three months following a reinstatement request during the second year.*

Most importantly, nearly 70% of surveyed pachinko players stated that some form of ATM suppression to prevent withdrawal overuse would be *personally* beneficial to them. Among the features considered to be most personally beneficial, respondents highlighted 1) *daily withdrawal limits* (53.4%), 2) *monthly withdrawal limits* (47.5%), 3) *credit card prohibition* (47.4%), and 4) *daily transaction limits* (46.7%). When asked about specific withdrawal limits, most pachinko players considered daily limits of ¥20,000 to ¥30,000 and monthly limits of ¥50,000 to ¥100,000 to be appropriate (see Figure 10).

Figure 10: Perceived Most Appropriate Daily and Monthly Withdrawal Limits for Pachinko ATM Use



### Impact of ATM Suppression Features on Gambling Risk

Awareness and self-reported utilization of key Trust Networks Inc. ATM suppression features was the basis on which impact was assessed in the survey data. When using ATMs at pachinko parlors, survey respondents recalled using the following features either sometimes or often: 1) *daily withdrawal limit* (27%), 2) *monthly withdrawal limit* (23.4%), 3) *daily transaction limit* (23.1%), 4) *withdrawal notifications* (20.2%), and 5) *bank account balance checks* (19.2%).

Among financially vulnerable players, such as those earning less than ¥3 million per year, awareness and self-reported use of key ATM suppression features was also apparent. Those features demonstrating the greatest impact included 1) *daily withdrawal limits* (25.3%), 2) *daily transaction limits* (24.2%), 3) *monthly withdrawal limits* (22.5%), 4) *withdrawal notifications* (22%), and 5) *promotion of the gambling helpline and URL*. Similarly, part-time workers (Freeters), who had nearly 7-times the odds of earning less than ¥3 million per year, reported the greatest impacts from 1) *daily withdrawal limits* (31.1%), 2) *daily transaction limits* (25.2%), 3) *monthly withdrawal limits* (25.2%), and 4) *credit card prohibition* (19.4%).

In contrast, those who reported being unemployed or retired *and* having over 5-times the odds of earning less than ¥3 million per year, experienced much lower impacts from ATM suppression features. *Daily withdrawal limit* awareness and self-reported utilization (16.9%) among unemployed and retired players represented the greatest impact.

Among high risk players, who potentially benefit most from ATM suppression features, awareness and self-reported utilization was much higher (see Figure 11). The features that appeared to have the greatest impact on high risk players included 1) *credit card prohibition* (50%), 2) *daily transaction limits* (47.6%), 3) *promotion of the gambling helpline number and URL* (47.5%), 4) *withdrawal notification* (47.1%), and 5) *daily withdrawal limits* (46.3%).

Figure 11: ATM Self-Reported Suppression Feature Impacts Among High Risk Pachinko Players<sup>15</sup>



Note: Figure values are in comparison to 31.8% of total high risk player ratio

<sup>15</sup> See Appendix E for a comparison of pachinko risk groups and recall (sometimes or often) with ATM suppression features

## SUMMARY: Online Survey

The majority of pachinko players appeared to be married and have stable employment and above average incomes. For the most part, pachinko players tend to be males, 25 years and older, and have a median age of 45.

A considerable proportion of pachinko players (31.8%) were assessed as high risk for gambling problems. This is much higher than any other gambling population assessed by the Responsible Gambling Council, but is consistent with past research on pachinko players (Akiyama et al., 2019). High risk pachinko players typically withdrew more money per day with many making more than one transaction per day and often used ATMs at train stations and in parlors.

The majority of pachinko players played at least once a week or more (before the coronavirus pandemic), engaged in other forms of gambling, and often used ATMs to access funds for gambling. Approximately one-third of gamblers played pachinko almost daily. In addition, accessing money from convenience store ATMs was the most popular way of withdrawing funds for gambling.

Pachinko players (75.4%) overwhelmingly supported the provision of suppression features on ATMs to help prevent excessive financial losses. Overall, withdrawal limits, transaction limits and prohibition on the use of credit cards were considered the most useful ATM suppression features. Notably, pachinko player preferences for daily and monthly withdrawal limits were in range of Trust Networks Inc. existing limit thresholds.

## ATM TRANSACTION DATA ANALYSIS

ATM transaction data<sup>16</sup> provides the strongest behavioural indications of impact from various responsible gaming suppression functions adopted by Trust Networks Inc. Monthly and daily cash withdrawals provide a clear assessment of the effects of limit thresholds that have been implemented over the years (i.e., 2008, 2010, and 2015); examining those *reaching* and *exceeding* monthly thresholds provide impressions of players who may be experiencing higher risks; and analysis of daily withdrawal behaviours between 2008 and 2020 give an accurate estimate of the effects of the ¥30,000 daily limit feature on Trust Networks Inc. ATMs in pachinko parlors.

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<sup>16</sup> The data relates to the individual card accounts, not necessarily individual persons

Figure 12: Historical Implementation of TN ATM Monthly and Daily Withdrawal Limits



### Impact of ¥150,000 Monthly Withdrawal Limit

The ¥150,000 monthly withdrawal limit was not established until 2010 (see Figure 12). Before and after comparisons of withdrawal and transaction history demonstrate that the ¥150,000 limit has had a positive impact in its first year of implementation (see Figure 13). For instance, prior to the implementation of the limit, the average rate at which clients met and exceeded the ¥150,000 threshold was a relative constant of 0.5%. This resulted in an average of 337 clients exceeding the threshold per month. In 2010-2011, when the ¥150,000 limit was instituted, the rate at which clients reached the limit threshold remained 0.5%, yet an average of 763 were prevented from exceeding this value. Data also showed that average monthly withdrawal amounts among the most excessive clients decreased by approximately ¥50,000 after the limit was established and average monthly transactions also decreased from 9.38 to 6.63 among these higher risk clients. As a proportion of the average monthly salary of a full-time employed worker in Japan, ATM withdrawal amounts also decreased 14.1% (Doda, 2020).

Figure 13: Impact of the ¥150,000 Monthly ATM Withdrawal Limit for Pachinko Players

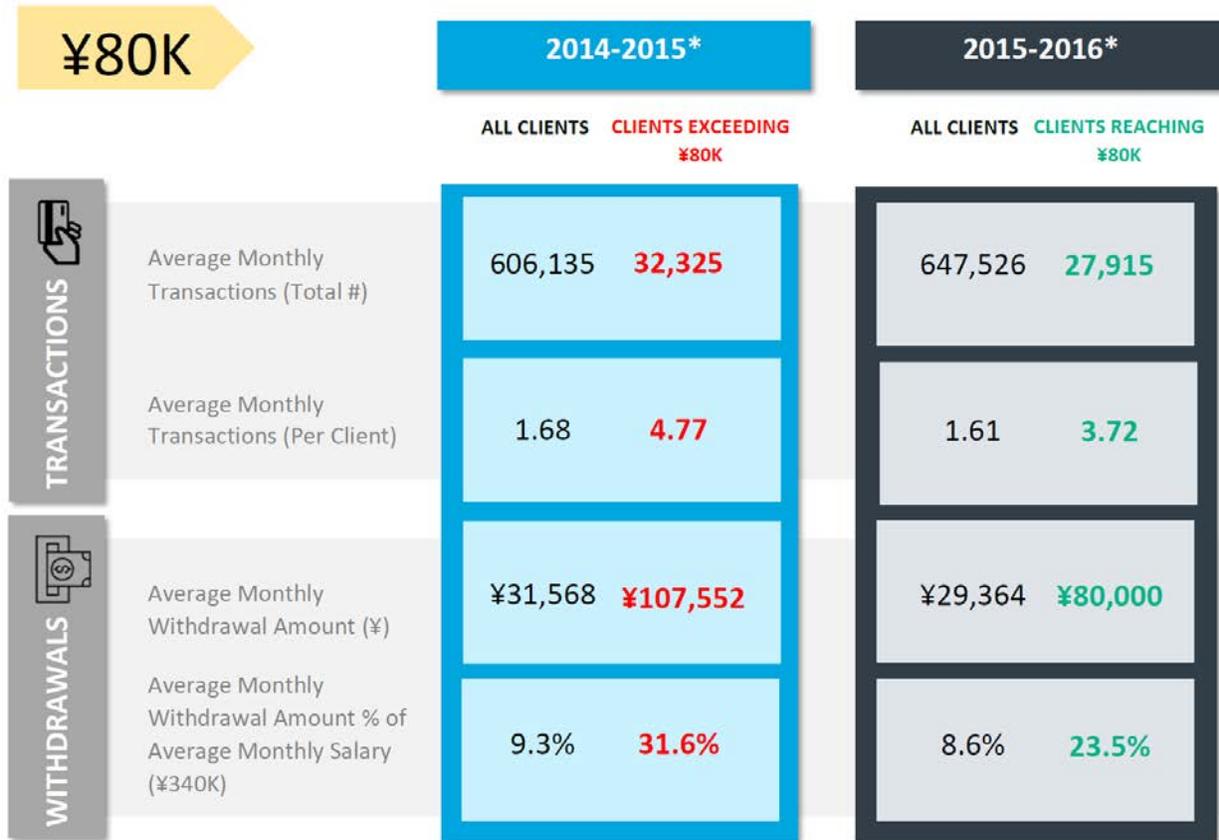


\*According to a 2019/2020 survey of 400,000 Japanese full-time employees, the average annual salary is ¥4.1 million

## Impact of ¥80,000 Monthly Withdrawal Limit

In 2015, Trust Networks Inc. lowered their monthly ATM withdrawal limit from ¥150,000 to ¥80,000 (see Figure 14). By 2014, the average monthly withdrawal amount was ¥107,552—much lower than the preceding ¥150,000 limit—and average monthly transactions per client exceeding ¥80,000 was 4.77. When the ¥80,000 limit was introduced, the average total monthly transactions among those reaching this limit dropped by over 4,000; average monthly transactions among these higher risk clients also decreased from 4.77 to 3.72; and average monthly withdrawal amounts among higher risk clients decreased by over ¥20,000. In addition, average monthly withdrawal amounts as a proportion of average monthly salary among higher risk clients also decreased by 8.1% to 23.5%.

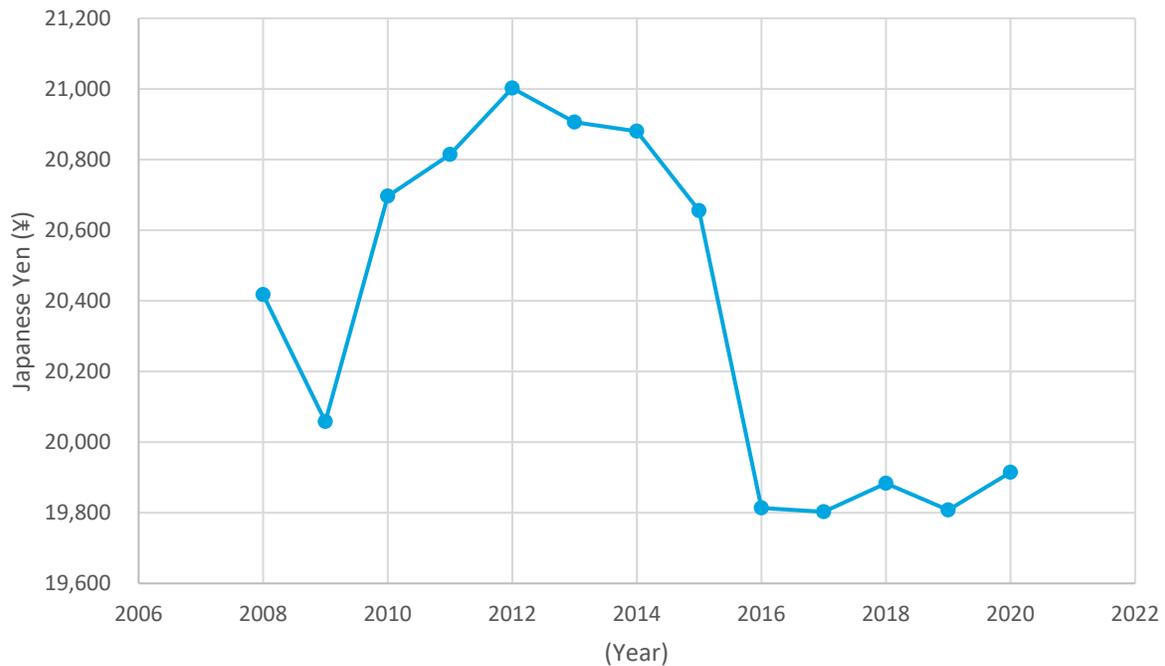
Figure 14: Impact of the ¥80,000 Monthly ATM Withdrawal Limit for Pachinko Players



### Impact of ¥30,000 Daily Withdrawal Limit

Daily ATM withdrawal behaviour among pachinko players also provided strong indications of positive impact related to the ¥30,000 daily limit instituted in 2008. Linear regression analysis comparing dependent years (2008-2020) with average daily withdrawal amounts revealed a significant statistical association ( $p < .05$ ). The results indicate that over time daily withdrawals are decreasing. Moreover, linear regression comparing years (2008-2020) to the proportion of clients reaching the ¥30,000 daily limit also show significant association ( $p < .05$ ). The results in this case indicate that as time passes and years advance, the proportion of clients reaching the ¥30,000 limit is decreasing. In other words, clients are slowly learning to adjust to safer pachinko funding practices. In addition, it appears that between 2015 and 2016, daily ATM withdrawal amounts decreased substantially—perhaps indicative of the monthly ¥80,000 limit being implemented (see Figure 15).

**Figure 15: Average Daily ATM Withdrawal Amount (2008-2020)**



## SUMMARY: ATM Transaction Data Analysis

**Progressive implementation of withdrawal limits has shown a direct and statistically significant reduction in excessive gambling withdrawals, and potentially losses as well.** From baseline (no monthly withdrawal limits) to present day, the most excessive ATM clients have decreased their average monthly withdrawal amounts by over ¥100,000; their average monthly transactions have decreased by 5.67 transactions per person; and their average withdrawal amounts, as a percentage of the average monthly salary of a full-time company worker, has decreased from 58.2% to 23.5%.

**Daily withdrawal behaviour has also seen a significant impact associated with ATM suppression features.** For instance, it was evident that between 2008 and 2020 daily withdrawal amounts have been decreasing, along with the proportion of clients reaching the ¥30,000 daily limit instituted in 2008. These findings indicate that ATM suppression features are having an impact on excessive transactions directly as well as helping clients to adjust their withdrawal behaviours related to pachinko funds.

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## APPENDIX A: Information Sources for Jurisdictional Comparison

The following sources were reviewed for the financial analysis of the jurisdictions below.

### Austria

**Household Income:**

[https://www.statistik.at/web\\_en/statistics/PeopleSociety/social\\_statistics/household\\_income/index.html](https://www.statistik.at/web_en/statistics/PeopleSociety/social_statistics/household_income/index.html)

**Recreation and Cultural Spending:**

<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20190111-2>

*\*Recreation and culture spending as % of household income (2017)*

**ATM limits:**

<https://www.justlanded.com/english/Austria/Austria-Guide/Money/Banks-in-Austria>

### Japan

**Household Income:**

[http://nbakki.hatenablog.com/entry/Distribution\\_of\\_Yearly\\_Household\\_Incomes\\_in\\_Japan\\_2016](http://nbakki.hatenablog.com/entry/Distribution_of_Yearly_Household_Incomes_in_Japan_2016)

**Recreation and Cultural Spending:**

<https://www.stat.go.jp/english/data/sousetai/2019n/zuhyou/s12.xls>

*\*Recreation and culture spending as discrete annual sum per household average (2019)*

**ATM limits:**

*\*Retrieved from Trust Networks Statement of Work*

### Massachusetts, USA

**Household Income:**

<https://www.census.gov/quickfacts/fact/table/MA#>

**Recreation and Cultural Spending:**

<https://www.census.gov/quickfacts/fact/table/MA#>

*\*Recreation and Culture is not recorded, but Entertainment measured (2015)*

**ATM Limits:**

[https://www.bankmainstreet.com/wpcontent/uploads/2017/11/Electronic\\_Funds\\_Transfer.pdf](https://www.bankmainstreet.com/wpcontent/uploads/2017/11/Electronic_Funds_Transfer.pdf)

## New Zealand

### Household Income:

<https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/monitoring/household-income-report/2017/2017-incomes-report-wed-19-july-2017.pdf>

### Recreation and Cultural Spending:

[http://archive.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/CPI\\_inflation/cpi-basket-changes.aspx](http://archive.stats.govt.nz/browse_for_stats/economic_indicators/CPI_inflation/cpi-basket-changes.aspx)

*\*Recreation and culture spending as % of household income (2008)*

### ATM Limits:

*\*Retrieved from Jurisdictional Interviews*

## Norway

### Household Income:

<https://www.ssb.no/en/ifhus>

### Recreation and Cultural Spending:

<https://www.nationmaster.com/nmx/ranking/household-expenditure-on-recreation-and-culture>

### ATM Limits:

[http://www.easg.org/media/file/vienna2010/presentations/Thursday/1330/P2/4\\_Jonny\\_Engeb\\_o.pdf](http://www.easg.org/media/file/vienna2010/presentations/Thursday/1330/P2/4_Jonny_Engeb_o.pdf)

## Ontario, Canada

### Household Income:

<https://www.fin.gov.on.ca/en/economy/demographics/census/cenhi16-7.html>

### Recreation and Cultural Spending:

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110022201>

### ATM Limits:

<https://www.desjardins.com/ca/personal/accounts>

## Singapore

### Household Income:

<https://www.singstat.gov.sg/-/media/files/publications/households/pp-s25.pdf>

**Recreation and Cultural Spending:**

<https://www.singstat.gov.sg//media/files/publications/households/hes201718.pdf>

**ATM Limits:**

[https://eresources.nlb.gov.sg/infopedia/articles/SIP\\_1615\\_2009-11-30.html](https://eresources.nlb.gov.sg/infopedia/articles/SIP_1615_2009-11-30.html)

## United Kingdom

**Household Income:**

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/financialyearending2019provisional>

**Recreation and Cultural Spending:**

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearending2018>

**ATM Limits:**

<https://www.nationwide.co.uk/support/support-articles/manage-your-account/atm-and-branch-withdrawal-limits>

## Victoria, Australia

**Household Income:**

[https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/2?opendocument](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/2?opendocument)

**Recreation and Cultural Spending:**

<https://www.parliament.vic.gov.au/publications/research-papers/download/36-research-papers/13860-the-cost-of-living-an-explainer>

**ATM Limits:**

<https://www.vcglr.vic.gov.au/gambling/gaming-venue-operator/understand-your-gaming-licence/cash-machine-gaming->

## APPENDIX B: Queensland, AUS Reflections on TN ATM Suppression Features

Queensland, Australia allows for the provision of ATMs in gambling venues, though they only include credit card withdrawal prohibitions and other basic suppression functions. Gambling safeguards are predominantly supported by other venue-based requirements, such as venue self-exclusion, ATM placement restrictions, and other typical interventions. In addition, the regulator is currently working with banking and financial institutions to help increase awareness of options available to customers who may wish to restrict transactions for gambling purposes.

As a way of providing an external perspective on access to money innovations in Japan, the Queensland regulatory informant was also asked to reflect on Trust Networks Inc. ATM suppression functions located in pachinko parlors.

### **Withdrawal and Transaction Limits**

With regard to Trust Networks Inc. withdrawal and transaction limits, the informant noted that these ATM innovations have not been tested in Queensland, though they do have restrictions on where ATMs can be accessed from.

### **Account Balance Checks**

The regulatory informant also agreed that in addition to credit card prohibitions, an account balance check would be viewed as a reasonable option in Queensland.

### **Key Messaging**

Although the provision of the problem gambling helpline number and URL on receipts is not yet implemented in Queensland, the use of responsible gambling messaging is considered to be an important and effective measure for assisting gamblers.

### **ATM Self-Exclusion**

Finally, with regard to self-exclusion programming, the informant considered this intervention to be effective, though it is administered through venues in Queensland and not through financial service providers.

## APPENDIX C: Survey Questionnaire for Pachinko Players

*This survey of pachinko players was carried out between August 31 and October 2, 2020. Respondents were recruited from an online panel and located in various locations across Japan. The survey was translated and administered in Japanese. The survey questionnaire is provided below:*

On behalf of the Responsible Gambling Council (RGC), an independent non-profit organization dedicated to gambling harm prevention and education, you are invited to participate in a survey about pachinko and pachislot in Japan.

The purpose of this survey is to better understand ATM usage and perspectives about different suppression features for ATMs in pachinko parlors. The survey will ask you about your basic pachinko experiences, including how and why you play. The survey will also ask your opinion about a variety of ATM suppression features designed to limit excessive financial losses in pachinko parlors. Finally, the survey will ask a few basic questions about your personal background.

Your choice to participate in all or parts of this survey is completely voluntary. If you choose to fill out the survey, it will take less than 10 minutes. All of your answers will be anonymous to protect your identity and confidentiality. In addition, all of your information will be stored, encrypted and password-protected by the RGC in a secure location in Toronto, Ontario, Canada.

For further information or if you have any questions or comments, please feel free to contact Dr. Alex Price by email (alexpr@rgco.org) or phone [XXX-XXX-XXXX].

### Screening Questions

1. **What is your age?** *[Thank and end survey if less than 18 years old]*  
[drop-down menu with specific ages—ages can be grouped later]
  
2. **Which gaming activities have you participated in over the past year?**  
**(Select all that apply)** *[Thank and end survey if “Pachinko/Pachislot” is not selected.]*
  - a. Pachinko/Pachislot
  - b. Publicly operated betting (e.g., soccer betting, horse racing, motor sports)
  - c. The Lottery
  - d. Other: \_\_\_\_\_
  - e. None
  
3. **Have you used an ATM at least once in the past year to withdraw money to play Pachinko/Pachislot?**
  - a. Yes
  - b. No *[Thank and end survey]*
  - c. I’m not sure *[Thank and end survey]*

## Basic Pachinko Behaviour

4. **Before coronavirus, how *often* would you typically play pachinko and/or pachislot?**
  - a. 2-3 times a week or more
  - b. once a week
  - c. 2-3 times a month
  - d. once a month
  - e. once in 3 months
  - f. once a half-year
  
5. **Before coronavirus, how *long* would you typically play pachinko and/or pachislot for?**
  - a. Less than 30 minutes
  - b. 30 minutes to 1 hours
  - c. Between 1 to 2 hours
  - d. Between 2 to 3 hours
  - e. More than 3 hours

## ATM Usage

6. **Where do you usually access ATMs to withdraw cash for Pachinko/Pachislot?  
(Select all that apply)**
  - a. Inside a convenience store
  - b. Train Station
  - c. Airports
  - d. Shopping Centers
  - e. Pachinko parlor
  - f. Other: \_\_\_\_\_
  
7. **When do you usually withdraw cash to play Pachinko/Pachislot?**
  - a. Before you go to the parlor
  - b. During your time at the parlor
  - c. Both before play and during play
  - d. Other: \_\_\_\_\_

8. **After you have started playing, how often do you visit an ATM to continue playing Pachinko/Pachislot?**
- a. Only once a day
  - b. 1-2 times a day
  - c. 3-5 times a day
  - d. More than 5 times a day
  - e. Never
9. **How much do you typically withdraw from an ATM per day to play Pachinko/Pachislot?**
- a. Less than ¥5,000
  - b. ¥5,000 - ¥9,999
  - c. ¥10,000- ¥19,999
  - d. ¥20,000- ¥30,000
  - e. Over ¥30,000

## ATM Suppression Features

*Unlike convenience store ATMs and ordinary Bank ATMs, ATMs located in pachinko parlors feature several suppression functions to help prevent overuse and excessive financial losses.*

10. **Please respond to the following statement: The ATM suppression functions below help prevent withdrawal overuse and excessive financial losses**

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Do Not Know
Gambling helpline number and URL						
Daily withdrawal limit (¥)						
Monthly withdrawal limit (¥)						
Daily transaction limit (#)						
Credit card use prohibition						
Bank account balance check to ensure withdrawal amount requested is available						
Withdrawal notifications: daily/monthly total (¥),						

daily/monthly transactions						
Voluntary self-exclusion (self-ban)						
Receipt messaging with gambling helpline number and URL						

11. Please respond to the following statement: The daily ATM withdrawal limits below offer the best balance for preventing withdrawal overuse and practical need at pachinko parlors

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
¥5,000 per day					
¥10,000 per day					
¥20,000 per day					
¥30,000 per day					
¥40,000 per day					
¥50,000 per day					
No Upper Limit is necessary					

12. Please respond to the following statement: The monthly ATM withdrawal limits below offer the best balance for preventing withdrawal overuse and practical need at pachinko parlors

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
¥50,000 per month					
¥80,000 per month					
¥100,000 per month					
¥120,000 per month					
¥150,000 per month					
¥180,000 per month					
¥200,000 per month					
No Upper Limit is Necessary					

13. Please respond to the following statement: The daily ATM transaction limits below offer the best balance for preventing withdrawal overuse and practical need at pachinko parlors

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1 ATM Transaction per day					
2 ATM Transactions per day					
3 ATM Transactions per day					
4 ATM Transactions per day					
No transaction limit is necessary					

14. Do you recall using an ATM in a pachinko parlor with any of the following suppression functions in the past year?

	Never	Rarely	Sometimes	Often	Do Not Know
Gambling helpline number and URL					
Daily withdrawal limit (¥)					
Monthly withdrawal limit (¥)					
Daily transaction limit (#)					
Credit card use prohibition					
Bank account balance check to ensure withdrawal amount requested is available					
Withdrawal notifications: daily/monthly total (¥), daily/monthly transactions					
Voluntary self-exclusion (self-ban)					
Receipt messaging with gambling helpline number and URL					

15. Which ATM suppression features do you think are most beneficial to you?

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Gambling helpline number and URL					
Daily withdrawal limit (¥)					
Monthly withdrawal limit (¥)					
Daily transaction limit (#)					
Credit card use prohibition					

Bank account balance check to ensure withdrawal amount requested is available					
Withdrawal notifications: daily/monthly total (¥), daily/monthly transactions					
Voluntary self-exclusion (self-ban)					
Receipt messaging with gambling helpline number and URL					

16. Do you agree that ATMs outside of pachinko parlors, but nearby in convenience stores should also have suppression features?

Strongly Disagree	Disagree	Agree	Strongly Agree	Do Not Know
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17. Please indicate your preference for accessing money to play pachinko:

	Strongly Disagree	Disagree	No Preference	Agree	Strongly Agree
ATM inside pachinko parlor with suppression features					
ATM outside pachinko parlor with no suppression features					

## Pachinko Behaviour and Motivation

18. Please indicate how often you have pachinko for each of the following reasons:

	Almost Never/Never	Sometimes	Often	Almost Always
<i>As a way to celebrate</i>				
<i>To relax</i>				
<i>Because you like the feeling</i>				
<i>To forget your worries</i>				
<i>Because it's exciting</i>				
<i>To be sociable</i>				
<i>Because you feel more self-confident or sure of yourself</i>				
<i>To get a "high" feeling</i>				

<i>Because it is something I do on special occasions</i>				
<i>Because it helps when you are feeling nervous or depressed</i>				
<i>Because it is fun</i>				
<i>To cheer up when you're in a bad mood</i>				
<i>Because it makes you feel good</i>				
<i>Because you are bored</i>				
<i>To pass the time</i>				
<i>To win money</i>				
<i>To earn income</i>				

19. Have you ever had to lie to people important to you about how much you gambled?

- a. Yes
- b. No

20. Have you ever felt the need to bet more and more money?

- a. Yes
- b. No

## Demographics

21. What is your gender identity?

- a. Female
- b. Male
- c. Prefer not to answer
- d. Other: \_\_\_\_\_

22. Please describe your marital status:

- a. Unmarried
- b. Married (including "Naien" or "Jijitsukon")
- c. Widowed
- d. Separated or Divorced
- e. Other: \_\_\_\_\_

23. Select the option that best reflects your occupation:

- a. Company employees and officers

- b. Self-employed
- c. Professionals (doctors, lawyers, beauticians, designers, etc.)
- d. Civil servants
- e. Students
- f. Full-time house wife or husband
- g. Part-time workers, Freeters (Adhoc worker)
- h. Unemployed/Retired
- i. Other: \_\_\_\_\_

**24. What is your annual household income?**

- a. Less than 3 million yen
- b. 3 to 4.9 million yen
- c. 5 to 6.9 million yen
- d. 7 to 9.9 million yen
- e. 10 to 14.9 million yen
- f. 15 million yen or more
- g. Unknown

## Appendix D: Distributed Sentiment on Placement of ATMs with Suppression at Convenience Stores Near Pachinko Parlors

Table: Cohort Agreement on ATMs with Suppression at Convenience Stores Near Pachinko Parlors

Cohorts <sup>1</sup>	Agreed that convenience stores located near pachinko parlors should have ATMs with suppression features (n/%)	Total Sample Sizes
<b>Non-problem player (LIE/BET=0)</b>	(161) 45.2%	356
<b>At-risk player (LIE/BET=1)</b>	(145) 44.5%	326
<b>High risk player (LIE/BET=2)</b>	(162) 51.0%	318
<b>Recall using pachinko parlor ATM with suppression</b>	(246) 40.0%	615
<b>Do not recall using pachinko parlor ATM with suppression</b>	(222) 57.7%	385

**Note.** % values reflect proportion of cohort totals

<sup>1</sup>Player risk is assessed using the LIE/BET screen scores (0-2). *Non-problem player=0; at-risk player=1; high-risk player=2*. It is important to note that the LIE/BET tool is only predictive of probable at-risk *and* pathological play, in combination (scores  $\geq 1$ ). The categories of “at-risk player” and “high risk player” are not formerly validated. However, the “high risk player” category provides a more conservative threshold for the assessment of risk and is used accordingly in this study.

## Appendix E: Comparison of Pachinko Risk Groups and ATM Suppression Feature Familiarity

**Table: Recall (sometimes or often) ATM Suppression Feature when Accessing Money at Pachinko Parlor by Risk Groups<sup>1</sup>**

Suppression Feature	Non-Problem Player (n=356)	Probable At-Risk and Pathological Player (LIE/BET score > 0)	
		At-Risk Player (n=326)	High Risk Player (n=318)
Helpline number and URL on machine	15.2%	21.4%	24.5%
Helpline number and URL on transaction receipt	12.4%	20.3%	24.2%
Daily withdrawal limit	19.9%	30.9%	36.2%
Monthly withdrawal limit	16.9%	27.0%	29.9%
Daily transaction limit	15.2%	27.5%	30.5%
Credit card prohibition	13.8%	21.1%	27.4%
Bank account balance check	15.7%	21.1%	25.5%
Withdrawal notifications	14.9%	23.1%	28.9%

**Note.** % values reflect proportion of risk group totals; voluntary self-exclusion values are not included due to the very recent implementation of this feature.

<sup>1</sup>Player risk is assessed using the LIE/BET screen scores (0-2). *Non-problem player=0; at-risk player=1; high-risk player=2*. It is important to note that the LIE/BET tool is only predictive of probable at-risk *and* pathological play in combination (scores  $\geq 1$ ). The categories of “at-risk player” and “high risk player” are not formerly validated. However, the “high risk player” category provides a more conservative threshold for the assessment of risk and is used accordingly in this study.

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