

Analysis of Global Regulatory Schemes on Chance-Based Microtransactions

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I. MICROTRANSACTIONS – A VIDEO GAME MONETIZATION MODEL

Microtransactions are financial transactions for a digital good or service. These transactions are often seen in video game monetization models where consumers purchase a currency or credit to spend on in-game additions. Companies have found innovative ways of introducing microtransactions to monetize games through business models such as free-to-play “freemium” models or by reducing the initial cost of purchasing a game and shifting the cost onto additional features. Other companies introduced microtransactions as a method of obtaining virtual gameplay goods and services. Some products are chance-based where the obtained outcome is randomized according to a table of probabilities. These are often referred to as “gachapon” and “loot boxes.” This paper seeks to examine and compare this chance-based nature, its effectiveness in video game microtransactions and their financial and psychological influences on the consumer to those of traditional gambling games. Furthermore, an analysis of Canadian and foreign legislation will be done to identify downfalls in Canadian legislation, determine necessary reformations to Canadian gaming law, and identify effective methods that will strengthen the regulatory regime.

II. CHANCE-BASED MICROTRANSACTIONS

A “Gachapon” is a Japanese vending-machine-style capsule toy dispenser; its name being an onomatopoeia of the sound of the hand-crank (“gacha”) and the sound of the capsule landing in the receptacle (“pon”). A consumer would pay the fee, turn the hand-crank, and a capsule containing a prize from a predefined list would be dispensed. Bandai Co., Ltd. trademarked the name “Gashapon”, describing these as “coin-operated vending machines” that

distributed toys.¹ These machines became popular and similar systems were implemented into video games. Like its machine equivalent, video game gachapon award the consumer with a random prize from a predetermined pool. In Western and European regions, video games feature loot boxes, which are effectively identical to gachapon. Loot boxes reward players with a prize from a pre-determined pool, though certain business models may require a key to open the box and other may immediately award the prize upon purchase.

In both gachapon and loot boxes, rewards are obtained randomly with more generally desirable prizes usually having a lower probability of being awarded and less desirable prizes having a higher probability of being awarded. Some individual prizes form sets, which may motivate an interested consumer to collect the other components to complete the set. These products are also often permanent goods that either impact gameplay or alter the cosmetics of the consumer's video game avatar which further incentivize the consumer to collect them.

Japanese, Korean, and Chinese monetization models favour the inclusion of an uncertainty element which is prevalent in many Japanese-developed video games.² Western developers have previously shown preference towards certainty in virtual item acquisition, though after the demonstrated success of chance-based microtransactions gachapon and loot boxes are common features in many North American and European-developed video games.

III. GAMBLING

According to the Oxford Dictionary, gambling is defined as “to take a risky action in the hope of a desired result”.³ Though this definition is overly broad, there are four common elements that differentiate gambling from risk-taking, which include the following: (1) the exchange is determined by an unknown

¹ Justia Trademarks, “GASHAPON - Trademark Details” (2019), online: <https://trademarks.justia.com/781/58/gashapon-78158256.html> [<https://perma.cc/2M2H-928C>].

² Marco Koeder; Ema Tanaka & Philip Sugai, “Mobile Game Price Discrimination effect on users of Freemium services- An initial outline of Game of Chance elements in Japanese F2P mobile games” (14th International Telecommunications Society (ITS) Asia-Pacific Regional Conference: Mapping ICT into Transformation for the Next Information Society, Kyoto, Japan, 24-27 June 2017), International Telecommunications Society, Kyoto online (pdf): <<https://www.econstor.eu>> [perma.cc/4RUE-J8Y8].

³ Lexico, “Definition of gamble in English” online: *Lexico* <<https://www.lexico.com/en/definition/gamble>> [perma.cc/55QJ-BMC8].

future outcome at the time of staking something of financial value; (2) the result is determined at least in part by chance; (3) the re-allocation of wealth without productive work on either side, and; (4) losses can be avoided by not engaging in the activity.⁴ This can redefine gambling as “to stake something of financial value on a chance-based event in hopes of obtaining a desired outcome”. This redefinition will be examined further after discussing the impacts of chance-based microtransactions.

In common casino or lottery games, losing does not reimburse the player with any part of the stake, and a payout does not guarantee a return of the entire initial stake. In contrast, gachapon and loot boxes always guarantee some sort of prize regardless of the outcome. When chance-based microtransactions were introduced to the industry, consumers and critics have spoken out regarding the similarities they bear to gambling games and the monetization models that feature such systems.

“Skin gambling” involves the betting of virtual goods, usually cosmetic and permanent in nature, obtained from a chance-based microtransaction on games of chance. Skin gambling is possible where players can transfer cosmetics between accounts, thus enabling third-parties to facilitate collection of bets and delivery of payouts. This has been common amongst player communities for the games Dota 2 and Counter-Strike: Global Offensive, both owned by Valve Corporation, though it exists within other game communities. Though the practice is discouraged by Valve and is in violation Terms of Service⁵, skin gamblers utilize Valve’s Steam platform and marketplace as an avenue to exchange cosmetics for legal tender by using the marketplace as a valuation tool for loot box rewards. However, skin gambling is not yet recognized as an illegal gambling activity in many jurisdictions due to the lack of value in legal currency and difficulty of attributing such value.

IV. SIMILARITIES OF CHANCE-BASED MICROTRANSACTIONS TO GAMBLING

A paper published at the IT University of Copenhagen investigated the addictive quality of loot boxes through comparisons to characteristics of

⁴ Mark Griffiths, “Is the buying of loot boxes in video games a form of gambling or gaming?” (2018) *Gaming Law Review: Regulation, Compliance, and Policy* vol.22(1) at p. 52-54.

⁵ Steam, “Steam Subscriber Agreement” (2018), online: [Steam](https://store.steampowered.com) <<https://store.steampowered.com>> [perma.cc/HL42-CAVK].

gambling that explain why consumers engage in gambling activities.⁶ The authors noted six shared characteristics, which include the Gambler's Fallacy, Near Misses, Quasi-Winning, Cognitive Entrapment, Illusion of Control, and Chasing.⁷

The Gambler's Fallacy is a bias where participants believe, based on consecutive prior occurrences that a particular outcome is "due" to occur. This is because the statistical probability of the next occurrence is independent and not affected by previous outcomes even if it has occurred at an average far above or below the advertised probability. In chance-based microtransactions, a consumer may overestimate the probability of obtaining a desired result due to prior consecutive undesirable outcomes.⁸

Near Misses occur in two situations: where players "experience winning" with a preliminary result and a final result as a loss, and where the player experiences a loss but is shown how "close" they were to winning, which encourages players to make another attempt. Rune believe this is done by showing the player the "tier" or "rarity" of a result prior to showing the actual reward. Coupled with a low probability of occurring, this makes the player focus on how close they were to obtaining their desired outcome rather than the fact they obtained an undesirable outcome.⁹

Quasi-Winning is the appearance of winning due to random desirable occurrences, whereas the reality is that of losing. Here, this concept is debatable, though assuming a player is utilizing a loot box or gachapon obtained by purchasing in-game currency, any outcome can be argued as a loss as most in-game rewards are not convertible into cash.¹⁰

Cognitive Entrapment is often referred to as the "sunk cost bias", which entails the continued investment or commitment into a prior chosen decision to justify that decision. This is commonly seen where players have spent a significant sum of money into microtransactions for a game and continue to

⁶ Kristian Lundedal Nielson Rune, "Are Loot Boxes Gambling? Random reward mechanisms in video games" (2018), online (pdf): *IT University of Copenhagen* <<https://itu.dk>> [perma.cc/QMD6-LEBS] [Rune].

⁷ *Ibid* at 6-7.

⁸ *Ibid* at 6.

⁹ *Ibid* at 7.

¹⁰ *Ibid* at 7.

spend due to attributing value to an in-game account, whether emotional or financial, even if they are unable to recover any of the spent amount.¹¹

Chance-based microtransactions may instill an Illusion of Control where players have an opportunity to interact with the system, usually through a decision, after investing a resource such as currency or a loot box but prior to obtaining the reward. An illusion is created where the player believes they have a choice in determining the outcome, even if the outcome was set when they invested the resource.¹²

Finally the last characteristic; Chasing is a behavior where players attempt to recoup losses by continued engagement in a particular behavior. This is often combined with the sunk cost bias, where players have invested resources and have not obtained their desired result and continue to spend in hopes of obtaining their desired result which, in their perspective, will justify the resources spent.¹³

V. CANADIAN GAMBLING LAWS

In Canada, federal regulation of gambling is dealt with through the *Criminal Code of Canada*.¹⁴ Sections 197 to 209 deal with gambling and games of chance, though the language used within the legislation focuses on lotteries and games of chance where there is a stake or a risk of loss.¹⁵ It does not contemplate scenarios where participants purchase credits and exchange those credits to obtain prizes to which monetary value cannot be clearly attributed. In gachapon and loot boxes, there is no “stake” as there is a transaction of currency for credits, and credits for a guaranteed prize.

In Manitoba, the provincial legislature regulates gambling through *The Liquor, Gaming and Cannabis Control Act*.¹⁶ Section 77(1)(c) of the Act defines “electronic gaming device” as “an electronic device, if the device is prescribed as an electronic gaming device or is within a class of devices that are prescribed as electronic gaming devices”¹⁷ which may potentially be argued as including

¹¹ *Ibid* at 7.

¹² *Ibid* at 7.

¹³ *Ibid* at 7.

¹⁴ *Criminal Code*, RSC 1985, c C-46.

¹⁵ *Ibid*, s 197-209.

¹⁶ *The Liquor, Gaming and Cannabis Control Act*, C.C.S.M. c. L153.

¹⁷ *Ibid*, s 77(1)(c).

computer and handheld devices. However, the definitions of “gaming event” and “provincial gaming”¹⁸ refer to the definition of a lottery scheme under s. 207(1) of the *Criminal Code of Canada*¹⁹ which does not include gachapon and loot boxes. This is echoed in Ontario’s *Gaming Control Act, 1992*²⁰ and British Columbia’s *Gaming Control Act*.²¹

Section 207(1) defines a lottery scheme as “a game or any proposal, scheme, plan, means, device, contrivance or operation described in any of paragraphs 206(1)(a) to (g), whether or not it involves betting, pool selling or a pool system of betting.”²² It also states that bets “on a single sporting event” are not included within this definition, which opens discussions of whether skin gambling may be a gambling activity due to the open debate of whether eSports are considered a sport. However, considering that jurisdictions such as the United States, Turkey, France, and various Asian countries have begun to recognize gaming as a sport, there is a possibility that Canada may do so as well.

Language referring to lotteries such as “lots” and “tickets”, as well as to some sort of monetary value through “valuable consideration” and “money” is used throughout Section 206(1).²³ Consequently, skin gambling escapes the scope of these provisions due to the lack of economic value that is generally attributed to the virtual goods involved. Given that Canada’s legislation is lacking in regards to regulation of chance-based microtransaction and skin gambling, evaluating foreign sources will provide insight on how the subject is being addressed.

VI. FOREIGN JURISPRUDENCE, LEGISLATION, REGULATION, AND REPORTS

A. Japan

In 2012, Japan banned a version of the gachapon called a “complete gacha”, often referred to as “kompu gacha”, which was a monetization model

¹⁸ *Supra* note 14 at s 77(1).

¹⁹ *Ibid* at s 207(1).

²⁰ *Gaming Control Act, 1992*, S.O. 1992, c. 24, s 1.

²¹ *Gaming Control Act*, SBC 2002, c. 14, s 1.

²² *Supra* note 14 at s 207(1).

²³ *Ibid* at s 206(1).

where players collected gachapon-exclusive prizes that could be combined into a rarer item. This was done through issuing a legal opinion that virtual items could be considered “prizes” under the *Act against Unjustifiable Premiums and Misleading Representations*.²⁴ Section 5 of the Act restricts representations of goods and services that are “likely to be misunderstood by general consumers... and considered likely to induce customers unjustly and to interfere with general consumers’ voluntary and rational decision-making.”²⁵ This provision is effective due to the easily misunderstood cost of collecting “sets” where certain prizes may be rarer than others.

The Japan Online Game Association, acting as the industry’s self-regulatory body, issued guidelines for games involving gachapon. Examples of guidelines including a comprehensive list of all rewards and their respective appearance rates for a gachapon and modifications to available rewards and rates during campaigns and promotions.²⁶ The Association also recommended that where a player has spent a certain amount of in-game currency (with a ceiling of 50,000 yen), they should have the opportunity to freely select any reward from the prize pool.²⁷

B. Singapore

In 2014, Singapore passed *The Remote Gambling Act* introducing a ban on unlicensed gambling websites and fines for violators.²⁸ Section 4(1) defines “money or money’s worth” to include “anything that recognizes as equivalent to money and includes virtual credits, virtual coins, virtual tokens, virtual objects or any similar thing that is purchased within, or as part of, or in relation to, a game of chance”²⁹, which raised concerns from developers as this definition would capture any game utilizing a virtual currency, though it was later clarified that this was contrary to the legislation’s intention.³⁰ Home

²⁴ 不当景品類及び不当表示防止法 [Act against Unjustifiable Premiums and Misleading Representations] Law No. 134 of May 15, 1962, as last amended by Law No. 71 of 2014.

²⁵ *Ibid* at s 5.

²⁶ Japan Online Game Association, “ランダム型アイテム提供方式を利用したアイテム販売における表示および運営ガイドライン” (2016) at 2, online (pdf): *Japan Online Game Association* <<https://japanonlinegame.org>> [perma.cc/5MZX-JAYX]

²⁷ *Ibid*.

²⁸ The Remote Gambling Act (SG) Law No. 34 of 2014.

²⁹ *Ibid* at s 4(1).

³⁰ SG, *Hansard*, Second Reading: Remote Gambling Bill, October 7, 2014, S Iswaran.

Affairs Second Minister S. Iswaran explained the broad wording and elaborated on the legislative purpose by stating that “the line between social gaming and gambling is increasingly becoming blurred” and that harmless practices can create devastating impacts as a result of market opportunities and consumer trends.³¹

C. China

In 2016, China’s new legislation required “online game publishers” to release the appearance rate of all virtual items and services in gachapon and loot boxes.³² The legislation also banned direct sales of “treasure box features” which randomly distributes virtual currency, items, or services based on the outcome of a lottery requiring payment of legal or virtual currency to participate such as loot boxes.³³ Blizzard Entertainment found a workaround to the language of the legislation, stating that players would receive loot boxes as a “gift” whenever they purchased in-game currency.³⁴

D. South Korea

A press release was released in March 2018 regarding an agreement between the self-regulatory body Korea Association of Game Industry (“K-Games”) and Minister of Culture, Sports and Tourism Do Jong-Hwan entailing plans to expand the scope of K-Games’ regulations.³⁵ According to the agreement, the Ministry promised to actively consider industry self-regulation when implementing policies in hopes of effective self-regulation promoting healthy game culture and in return K-Games would create an autonomous body to improve self-regulation, refine policies protecting youth, and expanding their regulations to include in-game item improvement systems.

³¹ *Ibid.*

³² Ministry of Culture, “文化部关于规范网络游戏运营加强事中事后监管工作的通知” (2016), online: *Government of China* <<http://www.gov.cn/>> [perma.cc/796V-3TET].

³³ Ministry of Culture, “文化部、商务部关于加强网络游戏虚拟货币管理工作的通知” (2009), online: *Government of China* <<http://www.gov.cn/>> [perma.cc/9HZG-TVLG].

³⁴ Kline, “中国地区补给购买方式改动—预告信息” (2017), online: *Blizzard China* <<http://bbs.ow.blizzard.cn/>> [perma.cc/FE45-F8SQ].

³⁵ Game Contents Industry Division, Press Release, 0328, “Ministry of Culture and Arts concluded business agreement with Korea Game Industry Association” (March 28 2018), online: *Ministry of Culture and Tourism* <<http://mcst.go.kr/>> [perma.cc/7GYN-7CRQ].

K-Games last updated their regulations in July 2018 to include the promises made in the agreement.³⁶

E. United Kingdom

Current legislation in the United Kingdom states that loot boxes are not considered a form of gambling, provided that the virtual goods are not convertible into cash. The United Kingdom's Gambling Commission issued a paper in March 2017 taking the position that where virtual items are restricted for use solely within the game, they would not be licensable gambling.³⁷ However, the paper offers a caveat, stating that where items can be exchanged for cash or other items of value, they "attain a real-world value and become articles of money or money's worth" and thus fall within the scope of the UK's current gambling legislation.³⁸ The UK government also stated that the Video Standards Council and the Pan European Game Information ("PEGI") are in discussions to discuss possible revision of PEGI standards pertaining to in-game gambling and acknowledged that The Consumer Protection from Unfair Trading Regulations 2008 that its provisions offering consumers protection from "misleading [and] aggressive marketing practices" and "direct exhortation" applies to loot boxes.³⁹

In the Young People & Gambling 2018 Report released November 2018, it was found that 31% of young people ages 11-16 claimed to have either paid money or used in-game items to open loot boxes and 3% participated in skin gambling.⁴⁰ In addition, 39% of children gambled in the past 12 months, and 13% have played online gambling-style games, 54% of which were via apps on smartphones or tablets.⁴¹

³⁶ Korea Association of Game Industry (2018), online: <<http://kgames.or.kr>> [perma.cc/6THD-6BRD].

³⁷ United Kingdom Gambling Commission, "Virtual currencies, eSports and social casino gaming – position paper" (2017), online (pdf): *United Kingdom Gambling Commission* <<https://www.gamblingcommission.gov.uk>> [perma.cc/9PAW-JSQN].

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ United Kingdom Gambling Commission "Young People & Gambling 2018", online (pdf): *United Kingdom Gambling Commission* <<https://www.gamblingcommission.gov.uk>> [perma.cc/WD7A-KYR].

⁴¹ *Ibid.*

F. Isle of Man

The Isle of Man's Gambling Supervision Commission prepared a guidance document effective from January 2017 which defined all forms of virtual currencies as having value in "money's worth."⁴² This brought game currencies that could be used to purchase loot boxes or utilize the gachapon, as well as virtual goods and other functional digital items under the scope of online gambling regulations.⁴³

G. Netherlands

In April 2018, the Netherlands Gaming Authority published a study and press release detailing their research findings and rulings on loot boxes⁴⁴ which revealed four of the ten loot boxes studied were in contravention of Dutch law stating that the "content of these loot boxes is determined by chance and that the prizes to be won can be traded outside of the game", in other words, "the prizes have a market value."⁴⁵ The study evaluated loot boxes using the Guide on Assessing Games of Chance⁴⁶ to determine whether loot boxes fell within the definition of a "game of chance" within the Betting and Gaming Act⁴⁷, defining activities as providing "an opportunity to compete for prizes or premiums if the winners are designated by means of any calculation of probability over which the participants are generally unable to exercise a dominant influence, unless a license has been granted therefore, under this law."⁴⁸ On average, loot boxes have a moderate to high risk of potential addiction resulting from long-term engagement and young persons may be encouraged to play other games of chance.⁴⁹ Ultimately, the study concluded that "loot boxes could possibly have a negative effect on the objective of

⁴² Isle of Man Gambling Supervision Commission, "Guidance for Online Gambling (Amendments) Regulations 2016" (2016), online (pdf): Isle of Man Gambling Supervision Commission <<https://www.gov.im>> [perma.cc/J2HP-LECF].

⁴³ *Ibid.*

⁴⁴ Netherlands Gaming Authority, "Study into loot boxes" (2018), online (pdf): <<https://kansspelautoriteit.nl>> [perma.cc/4YS4-8L8R].

⁴⁵ Netherlands Gaming Authority Press Office, "Certain lootboxes contravene gaming laws" (2018), online (pdf): <<https://kansspelautoriteit.nl>> [perma.cc/KKR6-R9Y5].

⁴⁶ Netherlands Gaming Authority, "Guide on assessing games of chance" (2018), online (pdf): <<https://kansspelautoriteit.nl>> [perma.cc/D8WA-HT93].

⁴⁷ Betting and Gaming Act 1964 (Wet op de kansspelen) (BGA).

⁴⁸ *Ibid* at s 1(1)(a).

⁴⁹ *Supra* note 46.

preventing addiction” and that “integration of loot boxes into games of skill, without the corresponding suitable measures and provisions, may be inconsistent with Dutch gaming policy to limit the negative effects of games of chance as much as possible.”⁵⁰

H. Belgium

An October 2017 report stated that it is difficult for legislators and policy makers to closely monitor developments in this area and that instruments provided for under Belgian law are not fully adapted to current industry practices which include loot boxes, skin gambling, and eSports bets.⁵¹ This means that it would be difficult to apply current gambling licenses to loot boxes, and parties such as government agencies, software developers, and rating agencies will need to cooperate to adapt current law to current practices. The report also recognizes that governments have difficulty reacting to and regulating these three practices due to the speed at which social gaming has evolved and its online nature.⁵²

In April 2018, shortly after the Netherlands published their study, the Belgian Gaming Commission published its Research Report on Loot boxes.⁵³ The paid loot boxes in games examined in this report were found to “fit the description of a game of chance because all of the constitutive elements of gambling are present.”⁵⁴ Section 2(1) of the *Gaming and Betting Act* defines “games of chance” as “any game by which a stake of any kind is committed, the consequence of which is either loss of the stake by at least one of the players or a gain of any kind in favour of at least one of the players, or organizers of the game and in which chance is a factor, albeit ancillary, for the conduct of the game, determination of the winner or fixing of the gain.”⁵⁵

Other than the exceptions provided for under the Act, all games of chance are banned in Belgium and can be criminally prosecuted. Operators may face

⁵⁰ *Ibid.*

⁵¹ Jonathan Van Damme, “Kansspelen en Social Gaming” (2017), online (pdf): [perma.cc/G3AW-A543].

⁵² *Ibid.*

⁵³ Peter Naessens “Research Report on Loot Boxes” (2018), online (pdf): <<https://www.gamingcommission.be>> [perma.cc/PM9M-FWQG].

⁵⁴ *Ibid.*

⁵⁵ Gaming and betting act of 7 May 1999, as amended by the act of 10 January 2010.

a prison sentence of up to five years and a fine of up to 100,000 francs⁵⁶, with the penalties doubling in the event of a repeat offence within five years or a violation against a minor.⁵⁷ However, in a press release, Justice Minister Koen Geens has mentioned that the fine may be as high as 800,000 EUR.⁵⁸

I. France

On November 2017, Senator Jérôme Durain wrote a letter to the president of the Autorité de régulation des jeux en ligne (“ARJEL”), a government-mandated authority overseeing online gambling, to request an investigation into loot boxes in respect to “pay-to-win practices.”⁵⁹ ARJEL published its 2017-2018 report in June 2018 discussing its findings on loot boxes at length which analyzes French gambling law, the requirements for a game to constitute gambling, the intent and purposes of French gambling legislation, and how current laws apply to loot boxes as well as recommendations for future actions.⁶⁰

Currently, French gambling law prohibits gambling unless expressly permitted by the regulator, only authorizes poker and horse and sports betting, and subjects online gambling to a State monopoly. Consequently, online gambling activities are prohibited by law as France takes the subject of gambling which can be seen in *LOI n° 2010-476 du 12 mai 2010*,⁶¹ where Article 1 describes gambling as “neither ordinary commerce nor ordinary service; in accordance with the principle of subsidiarity, they are subject to a strict framework with regard to issues of public order, public safety and the protection of health and minors.”⁶² State policies are outlined in Article 3, which include “protection of minors, combating excessive and pathological gambling, as well as ensuring integrity and transparency of gaming

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ Minister of Justice, News Release, “Lootboxes in three video games in violation of gambling legislation” (April 25 2018), online: *Koen Geens Minister of Justice* <<https://www.koengeens.be>> [perma.cc/5KVV-C3BU].

⁵⁹ Letter from Senator Jérôme Durain to ARJEL President Charles Coppolani (November 16, 2017), online: *Twitter* <<https://pbs.twimg.com/media/DOw7SJGWAAAWpk7.jpg>> [perma.cc/4AKT-33M2].

⁶⁰ ‘ARJEL’ “RAPPORT D’ACTIVITÉ 2017-2018” (2018), online (pdf): <<http://www.arjel.fr>> [perma.cc/Z6SB-8H3Z].

⁶¹ *LOI n° 2010-476 du 12 mai 2010*, JO, May 12 2010.

⁶² *Ibid* at art 1.

operations”.⁶³ For a game to be characterized as gambling, it requires a public offer which leads to a financial sacrifice made in expectation of a gain that would be due at random.⁶⁴

ARJEL found loot boxes and other similar microtransactions to undermine the objects of public policy on gambling for three reasons:

- 1) Minors were able to access games that feature loot boxes without any form of age verification;
- 2) Loot boxes introduce minors to “real gambling” due to the feature of spending money in the hope of obtaining a specific prize; and
- 3) The random number generator which determines the prize to be generated is non-transparent

The argument that a loot box does not constitute gambling on the grounds that it always contain a prize was addressed by pointing out that the important matter is the feeling of barely missing a desired prize, which are similar to slot machines where the player is enticed to continue playing from a “near-win.”⁶⁵ Ultimately, ARJEL finds that loot boxes qualify as gambling where the prize has monetary value in legal tender and can be monetized or is convertible into legal tender, though this disqualifies most instances of loot box use.⁶⁶ However, ARJEL supports regulation of loot boxes through collaboration between European regulators.⁶⁷

J. Germany

On March 2018, the Kommission_für_Jugendmedienschutz (“KJM”), or the Commission for the Protection of Youth in the Media, published a statement on their position regarding use of microtransactions in online games.⁶⁸ They claim in-game advertisements for loot boxes are advertisements that fall under Section 6 of the Interstate Treaty on the Protection of Human Dignity and the Protection of Minors in Broadcasting and in Telemedia (“JMStV”) which provides for protection of minors in advertising and

⁶³ *Ibid* at art 3.

⁶⁴ *Ordonnance n°2012-351 du 12 mars 2012*, JO, March 12 2010.

⁶⁵ *Supra* note 60.

⁶⁶ *Ibid*.

⁶⁷ *Ibid*.

⁶⁸ Kommission_für_Jugendmedienschutz “Jugendschutz bei Online-Spielen” (2018), online (pdf): <<https://www.kjm-online.de>> [perma.cc/6237-G9CR].

teleshopping⁶⁹ provided that advertisements and game content are intertwined in online games that engage minors.⁷⁰ Advertisements that mislead or exploit the inexperience of children through direct purchase appeals are prohibited⁷¹, though this evaluation is subject to the reaction evoked in children and adolescents to the overall presentation of the content.⁷² However, the KJM has stated that it has yet to receive a complaint regarding a loot box potentially in contravention of the JMStV and the loot boxes researched were not unlawful.⁷³

The Bundesgerichtshof (“BGH”), or Federal Court of Justice, announced a decision in July 2013 on direct purchase appeal advertisements towards minors in video games, where it was found that the use of language typically used by minors and not adults in an advertisement would constitute as advertising towards minors regardless of the intent of the advertisement.⁷⁴ However, the court implied an assumption that an online game would be a product marketed towards minors and therefore all advertisements for in-game products and services would be targeted at minors.⁷⁵ The BGH further elaborates that the determination of whether an advertisement is a direct purchase appeal is from the perspective of the average consumer group member.⁷⁶ In contrast, the Kammergericht Berlin (“KGB”), or the High District Court of Berlin, announced a decision in 2015 differently, where they found that inclusion of Terms of Service provisions to include minors and offering pre-paid cards that minors are able access does not automatically indicate the game to be marketed directly towards children and that the advertised product and language used must be decided on a case-by-case basis.⁷⁷

⁶⁹ Kommission_für_Jugendmedienschutz “Interstate Treaty on the Protection of Human Dignity and the Protection of Minors in Broadcasting and in Telemedia” (2018), online (pdf): <<https://www.kjm-online.de>> [perma.cc/7ZLV-FB7Y].

⁷⁰ *Ibid.*

⁷¹ *Ibid.*

⁷² *Ibid.*

⁷³ *Supra* note 68.

⁷⁴ BGH, 17.07.2013 - I ZR 34/12 at para 19.

⁷⁵ *Ibid.*

⁷⁶ *Ibid* at para 30.

⁷⁷ KGB, 12.01.2015 - 5 U 74/15.

K. Australia

In June 2018, the Australian Senate referred the matter regarding the extent of harmfulness of gaming chance-based microtransactions with reference to whether ability to monetize items constitutes a form of gambling and the adequacy of current consumer protection and regulatory framework to the Environment and Communications References Committee for inquiry and report.⁷⁸ The report found that loot box spending is linked to problem gambling, are “psychologically akin to gambling”, and that games featuring loot boxes are potentially “exploiting gambling disorders.”⁷⁹ The study referenced by the report noted a positive correlation between the amount spent on loot boxes and risk of problem gambling and suggests a two-way causal relationship between these two variables.⁸⁰ Both the study and report recommend that serious consideration be given to restricting games with loot boxes to players of legal gambling age and to include parental advisories and labeling of games that contain loot boxes to feature gambling content.⁸¹

L. United States of America

American legislation and response to microtransactions has been varied depending on the state. The Minnesota State Legislature introduced House File 4460 in May 2018, which is a bill prohibiting retailers from selling games to minors containing loot boxes or gachapon and requiring labeling that the game “contains a gambling-like mechanism that may promote the development of a gaming disorder.”⁸² The State of Washington introduced Senate Bill 6266 which, if passed, would require the Washington State Gambling Commission to present its findings and recommendations regarding regulation of the practice of including loot boxes and similar mechanisms in games, “including options for the adoption and implementation of a regulatory and enforcement

⁷⁸ Parliament of Australia, “Gaming micro-transactions for chance-based items” (2018), online: <<https://www.aph.gov.au>> [perma.cc/22AE-HSVS].

⁷⁹ Zendle, “Gaming Micro-Transactions for Chance-Based Items Inquiry” (2018), online (pdf): <<https://www.aph.gov.au>> [perma.cc/RK3M-MHJM].

⁸⁰ Zendle, “Video game loot boxes are linked to problem gambling: Results of a large-scale survey” (2018), online (pdf): <<https://www.aph.gov.au>> [perma.cc/RK3M-MHJM].

⁸¹ *Ibid.*

⁸² H.F. 4460, 90th Leg. (Mn. 2018).

system, restrictions on the sale of games containing these mechanisms, and any appropriate disclosures”, by December 2018.⁸³

VII. FINANCIAL ANALYSIS OF GAME SERIES UTILIZING DIFFERENT MODELS

SuperData Research, a company specializing in qualitative and quantitative research on video game markets and consumer spending habits, published a report in November 2017 which found that revenues from traditional one-time purchase models typically decrease over time after a game’s release.⁸⁴ In contrast, revenues from add-on content remain relatively constant and generally grow over time. Excluding expansion of in-game content, this may be attributed to gachapon and loot box variants and promotions featuring greater rewards and/or higher appearance rates of desirable rewards which encourage new and existing players to invest more during a specified period. Furthermore, consumer spending on microtransactions have drastically increased to the point where it is more advantageous for the gaming companies to pursue chance-based microtransactions.

Nintendo stated in their March 2017 financial results briefing that 1.9 million copies of Fire Emblem Awakening and 1.6 million copies of Fire Emblem Fates were sold worldwide.⁸⁵ Assuming every copy of Awakening was sold at a retail price of \$60 USD and players purchased all three campaigns of Fates for \$80 USD⁸⁶, the two games generate \$114 million and \$96 million respectively totaling \$220 million. In addition, assuming all players purchased all of Awakening’s and Fates’ downloadable content for its cost of \$50.50⁸⁷ and \$17.50⁸⁸ respectively, the total revenue rises to \$343.95 million USD.

⁸³ S 6266, 65 Leg., Reg. sess. (Wa. 2018).

⁸⁴ SuperData, “Battlefront II goofed, but gamers are still spending more on additional content” (2017), online: <<https://www.superdataresearch.com>> [perma.cc/625T-VPB2].

⁸⁵ Nintendo Co., Ltd., “Corporate Management Policy Briefing / Nine Months Financial Results Briefing for Fiscal Year Ending March 2017” (2017), online (pdf): *Nintendo Co., Ltd.* <<https://www.nintendo.co.jp>> [perma.cc/6VMR-UWLZ].

⁸⁶ Nintendo, “DLC - Fire Emblem™ Fates for Nintendo 3DS - Revelations, Maps” (2016), online: *Nintendo Co., Ltd.* <<http://fireemblemfates.nintendo.com>> [perma.cc/LS6E-ZY2X].

⁸⁷ Nintendo, “Official Site - Fire Emblem Awakening - Online Features - Overview”, online: *Nintendo Co., Ltd.* <<http://fireemblem.nintendo.com>> [perma.cc/B9M6-YKS8].

⁸⁸ *Supra* note 86.

These two games are considered the best sellers in the series with *Awakening* being released April 2012⁸⁹ and releasing June 2015.⁹⁰ In contrast, *Sensor Tower* reported that Nintendo's free-to-play mobile game *Fire Emblem Heroes* grossed \$300 million in their first year from microtransactions beginning on their February 2017 release date⁹¹ and surpassed \$400 million in under 18 months.⁹² Given that *Awakening* and *Fates* were released for a total of 122 months and *Heroes* was released for 22 months, the difference in revenue is significant.

Looking at Square Enix's *Final Fantasy XV* title, it was reported to have reached 8.1 million worldwide unit sales as of November 2018. Assuming every unit sold is its retail price of \$50 per unit with a \$25 season pass⁹³, this totals to \$607.5 million USD over two years. However, in August 2018, *Sensor Tower* reported that revenues from the mobile spin-off *Final Fantasy XV: A New Empire* surpassed \$380 million USD in 13 months.⁹⁴ Though the revenue of the original dwarfs *A New Empire*, the PC-and-console game was developed over a period of ten years⁹⁵ compared to the mobile app's seven-month development.⁹⁶

In Take-Two's 2012 annual report, they stated that "the development cycle for new titles generally ranges from 12 to more than 24 months" with their top-selling titles taking as long as "3 years or longer to develop", with \$10-60

⁸⁹ Nintendo, "ファイアーエムブレム 覚醒" (2013), online: *Nintendo Co., Ltd.* <<https://www.nintendo.co.jp/>> [perma.cc/5VQ6-6ZYL].

⁹⁰ Nintendo, "ファイアーエムブレムif | ニンテンドー3DS | 任天堂" (2015), online: *Nintendo Co., Ltd.* <<https://www.nintendo.co.jp/>> [perma.cc/73XG-TPK6].

⁹¹ Randy Nelson, "Fire Emblem Heroes Made Nearly \$300 Million Its First Year, Five Times More Than Super Mario Run" (2018), online: *SensorTower* <<https://sensortower.com/>> [perma.cc/W5N5-MZ6D].

⁹² Randy Nelson, "Fire Emblem Heroes Revenue Hits \$400 Million Worldwide" (2018), online: *SensorTower* <<https://sensortower.com/>> [perma.cc/6SP3-5574].

⁹³ PlayStation Store, "Final Fantasy XV Royal Edition" (2018), online: <<https://store.playstation.com/>> [perma.cc/6VPM-ANP7].

⁹⁴ Randy Nelson "Final Fantasy XV: A New Empire Revenue Surpasses \$380 Million So Far" (2018), online: *SensorTower* <<https://sensortower.com/>> [perma.cc/B54T-4BPN].

⁹⁵ Square Enix, "UNCOVERED | FINAL FANTASY XV" (2018), online: *Square Enix* <<http://www.jp.square-enix.com/>> [perma.cc/RD5V-WJXJ].

⁹⁶ BusinessWire, "Machine Zone and Square Enix Announce Partnership to Develop FINAL FANTASY XV Mobile MMO Game" (2018), online: *BusinessWire* <<https://www.businesswire.com/>> [perma.cc/M36C-K3WE].

million in development costs.⁹⁷ They noted several other issues, such as requiring approximately one year for a product to be ported to other platforms, penalties if the company failed to meet agreed upon release dates, and if third-party developers experience issues that create a supply chain problem for game development.⁹⁸ Take-Two has mainly published console and computer games that operate on a one-time payment model. Most mobile games have generally been released within months to approximately a year after initial development. On the other hand, Andrew Klubnikin at R-Style Lab, a software development company, analyzed the cost of development within mobile game types and found the development costs of popular “casual” games such as Clash of Clans, Angry Birds, and Candy Crush Saga to be lower than \$400,000.⁹⁹

VIII. WHY CHANCE-BASED MICROTRANSACTIONS ARE SO EFFECTIVE

There are psychological experiments and studies that explain the effectiveness of microtransactions in eliciting consumer spending and why some consumer exhibit dysregulated behaviours through excessive spending and problem gambling, as will be discussed below.

A. Random-Ratio Reinforcement

The effectiveness of microtransactions lies in operant conditioning; the method of learning through rewards and punishment for exhibited behavior. The operant conditioning chamber, known as the “Skinner Box”, is a psychological experiment used to study animal behavior by teaching a subject to perform a specific behaviour that it does not normally perform through a process called reinforcement by rewarding desired behaviours.¹⁰⁰ Reinforcement occur according to schedules, which are rules regarding the timing of reinforcement in response to behaviours. These can be continuous, where all instances of a behaviour are rewarded, or intermittent, where occurrences are only occasionally rewarded. Continuous reinforcement

⁹⁷ Take-Two Interactive Software, Inc. “Annual Report 2012” (2012), online (pdf): *Take-Two Games* <<https://www.take2games.com>> [perma.cc/L6ZP-XMVS].

⁹⁸ *Ibid.*

⁹⁹ Andrei Klubnikin, “How Much does It Cost to Develop a Mobile Game?” (2016), online: *R-Style Lab* <<https://r-stylelab.com>> [perma.cc/HG7U-Z99L].

¹⁰⁰ B.F. Skinner, *The Behavior of Organisms* (USA: D. Appleton & Company, 1938).

schedules are more effective in teaching new behaviours while intermittent reinforcement is more effective in maintaining a conditioned behaviour.¹⁰¹

A video game acts similarly to a Skinner Box; where playing the game is a desired behaviour that is rewarded with in-game content, which encourages the player to continue playing. When a consumer first begins playing a video game, their account does not have any virtual goods associated with it, so any reward acts as continuous reinforcement. This applies especially to chance-based microtransactions, where received rewards are often not acquirable in-game and all prizes are generally desirable. As prizes are obtained from a gachapon or loot box, the continuous reinforcement slowly transforms into intermittent reinforcement as prizes are no longer valued as they were in the beginning and only certain prizes become desired.

The form of intermittent reinforcement that emerges is known as random-ratio (“RR”) reinforcement, which is prevalent in electronic gambling machines.¹⁰² In RR reinforcement, a random ratio is set which indicates the frequency that the behaviour is rewarded, and each response-outcome is independent of the previous response.¹⁰³ The number of times that the behaviour must be performed can range between one and a near infinitely large number.¹⁰⁴ Individuals that fail to understand that each outcome is independent, and instead believes that there is a pseudo-random system, where the probability of winning increases for each occurrence of a losing response, falls victim to the gambler’s fallacy bias.

In gachapon and loot boxes, the player is technically rewarded for every purchase, as there is a guaranteed prize. However, the perceived value of the reward determines whether the behaviour is reinforcing. Receiving a common item may be analogous to receiving nothing, and receiving a rare item might feel the same as winning a large payout on a slot machine.

In contrast to conditioning, extinction is a gradual weakening of a conditioned response by ceasing to reward the behaviour, thus leading to a gradual weakening of the behaviour. This is effective where a behaviour is continually rewarded or where the reward can be expected after a specific

¹⁰¹ John O. Cooper et al., *Applied Behavioural Analysis (2nd Edition)* (Pearson Higher Education, 2013).

¹⁰² John Haw, “Random-ratio schedules of reinforcement: The role of early wins and unreinforced trials” (2008), *Journal of Gambling Issues* vol.21 at p. 56-67.

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

occurrence. intermittent reinforcement schedules are resistant to extinction because the subject expects the reward at some point if they repeat the behaviour but does not know when they will receive it. If there is an expectation of a reward after performing the behaviour and the expectation is repeatedly met with disappointment, eventually the subject will cease to perform the behaviour because their new expectations is that the behaviour will no longer be rewarded. Consequently, the act of purchasing chance-based microtransactions becomes a slow-to-extinguish behaviour.

B. Dopamine and the Brain Reward System

Dopamine is a neurotransmitter within the brain that plays a primary role in the reinforcement of associations between rewards and neutral stimuli that normally do not provide such rewards.¹⁰⁵ An example of this would be pressing a button and receiving a reward, such as using a loot box or gachapon. Once such an association is formed, it remains potent even after the reward has been devalued.¹⁰⁶ It was found that an established habit remains largely autonomous until the reward has sufficiently devalued through experience or the behaviour extinguished through events such as repeated unrewarded occurrences.¹⁰⁷

Multiple studies have found that dopamine plays a major part in addiction primarily through dopamine surges in addictive behaviours such as gambling.¹⁰⁸ These surges also occur when people consume illicit drugs which gives them a “high” that acts as a reward.¹⁰⁹ It was found that unexpected rewards result in particularly high amounts of dopamine release and greater learning.¹¹⁰ This is significant in chance-based microtransactions in situations such as receiving a highly desirable reward earlier than expected or receiving multiple desired rewards in quick succession where the probability of such an event occurring is low.

When looking at the use of microtransactions, a player may experience a dopamine “high” from the initial purchase of virtual currency or loot boxes as this has entitled them to receiving in-game rewards. They then experience

¹⁰⁵ Arias-Carrión et al, “Dopaminergic reward system: a short integrative review” (2010), *International Archives of Medicine*, 3:24.

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*

another “high” when they open a loot box and a prize is obtained. If the prize is one that the player desires, the dopamine released may be at greater levels than from a less desirable prize. This interaction is strengthened every time the player engages in this behavioural loop by opening a loot box and would eventually create a habit which leads to microtransaction addiction.

C. Slot Machine Near Miss and Chasing Mechanics

In many modern slot machines, particularly electronic terminals, the effect of Near Misses are pronounced through animations and other visual and/or auditory cues. The reels on a slot machine may include some feature in the machine showing a slowly moving slot gradually progressing to the winning notch with accompanying sound effects that build suspense and cause the player to become excited with anticipation. However, when the winning symbol fails to reach or overshoots the winning notch, the player experiences a feeling of disappointment, perceives this as a Near Miss, and believes that they were close to winning the jackpot despite it being a loss.¹¹¹

In gachapon and loot boxes, different tiers of rewards are often associated with certain colors, animations, or sounds. For instance, a common item may be associated with white, uncommon with green, rare with blue, and progressing further on with yellow, red, purple, etc. These cues often appear before the player is even aware of the prize they have won and notify them of the rarity of their reward. An extremely rare reward will be perceived initially as a highly desirable outcome, but the appearance of the reward itself may be not what the consumer desired and they perceive this as a Near Miss. For example, a consumer may open a loot box and subsequently see and hear the cues for a prize of the highest rarity, but the prize could ultimately be something that the player does not require or want. This becomes a Near Miss, which makes the player believe that they were close to their desired prize, even though they did not obtain it.

Slot machines often feature Quasi-Wins where there are prizes awarded for “winning” even if the prize is less than the player’s initial stake.¹¹² In gachapon and loot boxes, a Quasi-Win may result where a semi-rare prize is won even if it is not the prize that the consumer is seeking. The player may feel as though they won a prize due to receiving a somewhat uncommon prize, but it is, in reality, a loss by not being one of the prizes they are seeking.

¹¹¹ *Supra* note 9.

¹¹² *Supra* note 10.

The Chasing effect of slot machines is especially strong in chance-based microtransactions. Unlike chasing the slim probability of a win in conventional slot machines, the chance of obtaining a prize of the highest rarity in a loot box or gachapon is often at least 1%. However, the 1% is merely the rate that the highest rarity pool is drawn from, and the chance of obtaining a specific reward is divided amongst other prizes within that pool. Consequently, the probability of obtaining the rarest prize is much less than 1% and can fall even below 0.01% in some games with large pool of prizes. Players that fail to understand this will often fall victim to experiencing Near Misses and continually chase the prize they are seeking whilst overestimating the probability of obtaining it.

D. The “Near Win”

Some games featuring gachapon will include a Near Win mechanic. This is similar to the Near Loss, but the cue will initially present a prize of a lower rarity, before changing to one indicating that the prize was converted from a lower rarity to one of a higher rarity. This takes advantage of both positive reinforcement, which is the delivery of a positive stimulus in response to the behavior to increase the likelihood of exhibiting the behaviour, and negative reinforcement, which is the removal of a negative stimulus in response to the behaviour to increase the likelihood of exhibiting the behaviour. Normally, receiving an undesired prize is not a reinforcement to the behavior of spending on the gachapon and is normally associated with the feeling of disappointment. However, in the case of a Near Win, the consumer is first disappointed in the prize, then receives the reinforcement of receiving a more desirable prize of a Near Win whilst the feeling of disappointment is removed. This is dangerous to individuals who are predisposed towards gambling activities, as the Near Win reinforces the initial feeling of disappointment in not receiving the desired prize.

E. Sunk Cost Fallacy and Decision-Making

Sunk cost is a decision heuristic that leads to irrational decision-making by causing an individual to view a loss created by a previous choice as an avoidable loss that can be recouped by further investment. However, the cost has already been incurred and should not influence future decisions, though it does so regardless.¹¹³ This is often the case when players have invested a significant

¹¹³ Hal Arkes and Catherine Blumer, “The Psychology of Sunk Cost” (1985) *Organizational*

amount of time and financial resources into the game and quitting the game would represent a waste of such resources that they had invested. Due to risk-averse behaviour, players are more likely to spend more as they perceive the financial loss of spending a little more to be more attractive than the complete loss of abandoning the game.

F. Game Design Motivates Purchase of Loot Boxes

In games where loot boxes offer a competitive advantage, winning is the main incentive, which leads players to purchase loot boxes to obtain the optimal prizes from the prize pool.¹¹⁴ Players in multiplayer games are more likely to do this given the socialization aspect of the games and potential rivalry as well as opportunities to boast about having an exclusive or rare reward that many others do not have.¹¹⁵ Some games are also filled with a large selection of prizes, and collectors are willing to pay simply for the sake of completing a collection.¹¹⁶ When new prizes are introduced to the game, collectors are likely to pay until they obtain all of the potential new prizes.

Impulse spending and gambler's fallacy are also important factors, particularly for players with low self-control and poor budgeting.¹¹⁷ These factors are often present where a player is frustrated by a loss-streak from opening prior loot boxes and believe that opening additional boxes will increase the probability of obtaining a rare item. However, this is only true in the sense that opening additional boxes will increase the statistical probability that one box out of the total boxes opened will contain a rare item, whereas players are inclined to believe that opening additional boxes increases the probability of the box containing a rare item.

G. Purchases Made Via Legal Currency vs Virtual Currency

Legal currency is a currency that is declared legal and regulated by a government in which the monetary unit, denominations, and status as legal tender is set out in legislation.¹¹⁸ In contrast, a virtual currency is "a kind of

Behaviour and Human Decision Processes vol.35 at p. 124-140.

¹¹⁴ Randau et al., *Loot boxes: gambling in disguise?* (BBA Thesis, Jönköping University, 2018) [unpublished]

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

¹¹⁷ *Ibid.*

¹¹⁸ See e.g. *Currency Act*, R.S.C., 1985, c. C-52.

unregulated money, which is subscribed and usually controlled by their developers, and used and accepted by the specific virtual community.”¹¹⁹

In most games featuring gachapon and loot boxes, there are multiple virtual currencies, with at least one currency being rarer than others and usually available only through exchanging with legal currency and specific in-game events or rewards. This “premium” currency is generally used for purchasing gachapon and loot boxes that feature highly coveted prizes or for convenience items and services within the game. Generally, players first purchase the virtual currency available in the game with legal currency, then use the virtual currency to purchase loot boxes within the game.

Use of a virtual currency system may lead a consumer to dissociate the purchase of a loot box or gachapon from the spending of a currency. For instance, most video game players do not view in-game virtual currencies in terms of a legal currency. Those who exchange a legal currency for a virtual currency will view that initial exchange as a purchase using legal currency, but any use of virtual currency on in-game services will generally be viewed as the expending of “points” more so than a “currency”. As a result, this may lead individuals to make multiple purchases of the premium currency to stockpile the currency and save it for future use. This tactic is more commonly used by those more heavily invested into a game in an attempt to “quit spending”, though often their previous habits eventually lead them to spend the currency over a short period of time. This is particularly effective as the attempt to stockpile virtual currency compounds on the influence of sunk costs and makes it difficult to quit.

H. Purchases Made with Cash vs Credit

Majority of purchases of in-game virtual currencies are made via credit and there is no physical transfer of notes or coins. When people make purchases, there is an immediate pain of paying which reduces the pleasure of consumption and the person undergoes an internal cost-benefit analysis of the pain and pleasure felt by the purchase.¹²⁰ However, a purchase on credit decouples this pain and pleasure association as the pain associated with the

¹¹⁹ European Central Bank, *Virtual Currency Schemes*, October 2012 (Germany: European Central Bank, 2012).

¹²⁰ Drazen Prelec & George Loewenstein, “The Red and the Black: Mental Accounting of Savings and Debt” (1998), *Marketing Science* vol. 17(1) at p. 4-28.

expense of money occurs at a different time when the credit is paid off.¹²¹ This results in a higher willingness to pay due to the instant gratification and the dulling of pain associated with the purchase. Furthermore, individuals recall their cash payments better than credit purchases.¹²² As many games featuring microtransactions limit the amount of the virtual currency that can be purchased in each transaction, this encourages multiple transactions and may cause the consumer to lose track of the exact amount spent. In many cases, they are likely to underestimate the amount spent and overspend.

IX. INDUSTRY TACTICS IN GAMBLING AND MICROTRANSACTION MARKETING

A. Gambling Marketing to Youth

Studies found that youth are particularly vulnerable to being influenced from advertisements which have enduring effects.¹²³ This was particularly pronounced events and programs popular among and targeted towards youth.¹²⁴ Regulations that prevented marketing targeting youth resulted in a decrease in consumption among young people.¹²⁵

Common gambling strategies include in sponsorship of sports, promotional products, celebrity endorsements, and media and online advertisements.¹²⁶ Sponsorships and endorsements increase the appeal of the product due to its association with a particular individual or group. The popularity of the individual or group carries a strong influence among audience of the aforementioned individual or group and improves credibility and attitudes towards the product.¹²⁷ On the other hand, promotional

¹²¹ *Ibid.*

¹²² Priya Raghur & Joydeep Srivastava, "Effect of face value on product valuation in foreign currencies" (2002), *Journal of Consumer Research* vol. 29 at p. 335-347.

¹²³ Monaghan, Derevensky & Sklar, "Impact of gambling advertisements and marketing on children and adolescents: Policy recommendations to minimise harm" (2008), *Journal of Gambling Issues*: vol. 22 at p. 252-274.

¹²⁴ Collins et al., "Early adolescent exposure to alcohol advertising and its relationship to underage drinking" (2007), *Journal of Adolescent Health* vol. 40 at p. 527-534.

¹²⁵ Henry Saffer & Dhaval Dave, "Alcohol consumption and alcohol advertising bans" (2002), *Applied Economics* vol. 30 at p. 1325-1334.

¹²⁶ *Supra* note 125.

¹²⁷ *Ibid.*

products increase brand awareness, which, in turn, draws potential participants.¹²⁸ These are often combined into media and online advertisements given the prevalence of Internet use among youth.

Gambling advertisements often include misleading content and incorporate many aspects that appeal to younger audiences. These advertisements often promote luck and presents itself as an easy way to become wealthy without needing to work whilst avoiding any discussion of the probability of winning.¹²⁹ Consequently, the individuals most likely to be drawn in by such promises are youth as they do not earn much income and many pursue post-secondary education which delays the beginning of their career whilst the tuition may put them in debt before they even begin working. Furthermore, the brain has not finished developing in youth and young adults, and consequently they are easily impressionable and can be influenced to begin gambling at an earlier age.

Research have found that minors engage in more gambling-related activities than any other age group and have developed the most gambling-related disorders.¹³⁰ Studies in Canada, the USA, the UK, Norway, and Australia show that “63% to 82% of teenagers (12 to 17 years of age) gamble each year, 4% to 7% of adolescents exhibit serious patterns of pathological gambling, and 10% to 15% are at risk for either developing or returning to a serious gambling problem.”¹³¹ In addition, gambling disorders often evolve from the gambling behaviours that are developed during teenage years,¹³² which makes video game gambling even more dangerous.

B. Progression and Advertisement in Games Featuring Chance-Based Microtransactions

Consumer exposure to gachapon and loot boxes initially begin by exposure to advertisements of the game. Advertisements attempt to draw in consumers by marketing the game, which ends up marketing towards younger audiences due to the subject being video games. These games feature a collecting aspect such as collection of characters, equipment, cards, or other collectibles. Once

¹²⁸ *Ibid.*

¹²⁹ *Ibid.*

¹³⁰ *Ibid.*

¹³¹ *Ibid.*

¹³² Blaszczyński et al., “Psychological Aspects of Gambling Behaviour: An Australian Psychological Society Position Paper” (2011), *Australian Psychologist* vol. 34(1) at p. 4-16.

a player downloads the game, they are first exposed to a tutorial teaching them the mechanics of the game. Upon completion of the tutorial, the player generally receives a generous amount of starting rewards, including gachapon “tickets”. Most prizes will be immediately useful to a starting player and are a noticeable improvement to what they start with. The player can easily build up premium currency at the beginning of the game and are encouraged to spend it in the gachapon. The gachapon will often advertise the probability of obtaining a particular reward and the benefits of obtaining it are lauded. At some point, the player will face difficulties in progression and may be forced to spend time to make minimal progress. They must then choose to spend additional time playing or in-game currency to progress. The company aims to take advantage of this point by inciting the player to focus on progression by spending currency. Many games also provide premium currency obtained over time, such as login bonuses, so players are generally not cut off from obtaining premium currency. However, the rate at which the player obtains this currency is generally over days or weeks. Meanwhile, the player is constantly bombarded by advertisements within the game of the promises of progression and highly desirable collectibles.

C. Similarities in Advertisement Strategy

Mobile phone games will often advertise through push notifications with reminders of resources, to obtain log-in bonuses, and informing about the featured gachapon. Some games will advertise limited-time purchases such as bonus currency for their first purchase and discount packages. Some companies will sponsor popular YouTube content creators to advertise their game, employing sponsorship and endorsement strategies that are employed in the gambling industry. The game is highly recommended to the audience along with some boasting of the rare rewards obtained from loot boxes and gachapon. Some advertisements involve a well-known individual in the internet community spending currency on gachapon and loot boxes and expressing excitement at obtaining extremely rare rewards. This attempts to elicit the same emotions that are felt by witnessing someone win a jackpot at a slot machine and the enjoyment of the entire experience.

The effectiveness of these advertisements is based on the same marketing strategies as those of gambling advertisements. The striking similarities in characteristics, audience, advertising strategies, and long-term effects in youth and young adults make the application of principles that apply to gambling equally effective when applied to chance-based microtransactions. However,

microtransactions are merely a monetization model and not the central activity that is being engaged in, therefore, video games are also able to appeal to the player in other ways. Games that allow players to compete appeal to the competitive nature of individuals, which increases the incentive to spend money on microtransactions to progress further or be based on a popular title which attracts players that enjoy the original work from which the game was derived. There are more options for introducing gambling into video games which make it extremely effective, including altering the mechanics of the gachapon.

D. Gachapon Variants

There are numerous varieties of the gachapon mechanic which involve a variation in pricing, altering the prize pool, or modifying the prize that would appear. Excluding the banned Kompu Gacha, loot boxes have also begun to adopt these gachapon variations, which include the Box Gacha, Sugoroku Gacha, Redraw Gacha, Consecutive Gacha, Step-Up Gacha, Open/Closed Gacha, and Discounted Gacha.¹³³

The Box Gacha variant features a finite number of items, which implies that the probability of obtaining a desired reward increases with every roll.¹³⁴ The objective of this variant is to make players “keep coming back to the machine” until they obtain their desired reward. Many games will implement limited-time rewards to attract players to make the initial investment, then rely on the increased rate to keep players “coming back”.

The Sugoroku Gacha takes much from the original Japanese board game Sugoroku which involves moving a character on a board from start to finish.¹³⁵ Playing the gachapon earns the player the right to participate in a luck-based game that determines the distance moved on the board and players receive rewards from the tiles they’ve passed. By placing valuable prizes throughout the board and an extremely rare reward at the end, this may lead to the mindset of focusing on the number of tiles needed for the next prize rather than the total number of tiles to reach the end which potentially misleads the player into miscalculating the amount they will be spending.

¹³³ *Supra* note 2.

¹³⁴ *Ibid* at 6.

¹³⁵ *Ibid.*

The Redraw Gacha allows players to redraw a gacha result or allows a player to choose a result from multiple rewards.¹³⁶ Gachapon with this feature either does so for free or at a lower price than the cost of playing the gachapon. This creates an illusion of control by granting players a choice and players perceive this as an increase in the probability of obtaining a desired reward.

The Consecutive Gacha involves allowing players to play the gachapon multiple times at once.¹³⁷ This is often offered at a discount or guaranteeing a particularly rare prize to incentivize players to spend more at once. This is often effective as the player sees this as “getting a better deal.”

The Step-Up Gacha involves rewarding a player with increasingly valuable prizes or increased rates of a desirable reward for consecutive investments into the gachapon in a single session.¹³⁸ This method is the most effective in causing players to spend significant amounts at once through offering increased rates or guaranteeing rewards of a certain rarity with each successive roll.

The Open/Closed Gacha advertises the probability of obtaining a specific item.¹³⁹ Usually, the probability of obtaining a category of items is advertised and a list of the potential prizes are listed under the category. However, the Open/Closed Gacha advertises the probability of every item if an item has a different appearance rate than others within the same category. This is usually done to highlight temporarily increased appearance rates of certain prizes.

The Discounted Gacha, though not a variant in terms of function or feature, is a special campaign where players can play the gachapon at a lower price.¹⁴⁰ This is implemented in some gachapon by providing free or lower price attempts which gradually increase to the regular price. Games may also feature this during special promotions such as seasonal events.

A common theme to most gachapon variants is the exploitation of the sunk cost fallacy by making the player associate an increased chance of obtaining a desired reward as a prize. Each time a player begins playing a gachapon variant, they receive the increased probability of obtaining a desirable prize as a “reward”. However, if a player obtains an increased rate but does not continue spending to obtain the specific prize, it is lost when the specific gachapon is not available. This acts as a punishment, the presentation

¹³⁶ *Ibid.*

¹³⁷ *Ibid.*

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*

¹⁴⁰ *Ibid.*

of an undesirable “reward” that causes a person to be less likely to exhibit a behavior that it is associated with. A study at the University of California showed that people were more sensitive to losses than to equivalent gains when making decisions, meaning that people will tend to act in a way that reduces losses than to seek out a win.¹⁴¹ Over time, the player will avoid “wasting” the reward of an increased probability by investing more to receive their desired reward, and this eventually leads to the player spending significant amounts of fiat and virtual currency to obtain their desired virtual good. One additional factor that contributes is the pain of paying, where swiping a credit card to make a purchase is less punishing than handing over cash.¹⁴²

Furthermore, many developers will combine different gachapon variants together or with limited-time promotions such as increased appearance rates of rare rewards, decreased appearance rates of common rewards, or offering limited-time rewards such as seasonally themed prizes. In games where the prizes are not simply cosmetic and will impact gameplay, updates will often include newer gachapon that feature prizes offering a larger gameplay advantage. This is often referred to as “powercreep”, which is the gradual inflation of gameplay attributes such as health, attack points, and defense points. Newer gameplay content is often more difficult and gachapon prizes improved accordingly to keep players interested in spending money.

X. EXAMPLES OF EXCESSIVE CONSUMER SPENDING ON LOOTBOXES

Japanese gachapon games are notorious for excessive spending stories due to the emphasis on luck-based factors in monetization models. In 2016, Cygames’ Granblue Fantasy was being widely advertised in Japan and had a promotion where the probability of obtaining the rarest characters in the game would double for a limited time. A Japanese player created a video of his attempt to obtain a recently added character, where he spent \$6,065 before finally obtaining her, leading to a petition for Cygames to change their business practices and for lawmakers to regulate the industry more heavily.¹⁴³

¹⁴¹ Craig Fox, Sabrina Tom, Christopher Trepel, & Russel Poldrack, “The Neural Basis of Loss Aversion in Decision-Making Under Risk” (2008), Association for Consumer Research 129-132.

¹⁴² *Ibid.*

¹⁴³ Yuji Nakamura, “\$6,065 Spent in One Night Shows Dark Side of Japan’s Mobile Games” (2016), online: *Bloomberg* <<https://www.bloomberg.com>> [perma.cc/5ZDQ-BZFG].

Another example of excessive spending includes Square Enix's Final Fantasy Brave Exvius mobile game which was released in July 2016. In December 2017, a Reddit user shared his experiences on how he spent \$16,000 in the 18 months that the game was released and discussed how his spending gradually increased after successive in-game purchases, starting from "harmless" amounts such as \$20 up to sums as high as \$3000 in one sitting.¹⁴⁴ A Japanese man spent more than \$70,000 USD on gachapon on Fate/Grand Order, a mobile game created by Sony.¹⁴⁵

Valve's Counter Strike: Global Offensive title also has a history of large spenders, though most of the larger spenders appear to be in skin gambling and direct purchases of extremely rare cosmetics. A 2016 report published by Narus Advisors LLC and Eilers & Krejcik Gaming, LLC estimated the value of money and virtual items wagered around major eSports titles in 2016 to be approximately \$5.5 billion.¹⁴⁶ This number is projected to grow to \$12.9 billion by 2020 and is stated to be an easy target.¹⁴⁷ There have been situations where minors have spent money on in-game microtransactions to boast to friends, only to become bored of item after the novelty has worn off and proceeded to bet them on skin gambling sites.¹⁴⁸ A Reddit user shared his experience of how he initially started betting \$15-20 on games for fun, then won a large sum by betting on an underdog, eventually leading to experiencing gambling "highs" from gambling increasingly larger sums and ultimately losing borrowed money.¹⁴⁹ Skin values in Counter Strike: Global Offensive comes from a variety of factors that determine rarity, such as the popularity of the

¹⁴⁴ nothing024, "Caution" (December 13, 2017), posted on *A Whale of a Tale*, online: *Reddit* <https://www.reddit.com/r/FFBraveExvius/comments/7jmezv/a_whale_of_a_tale/> [perma.cc/RH9G-9FW2].

¹⁴⁵ Daniel Epstein and Miho Inada, "Meet the Man Who's Spent \$70,000 Playing a Mobile Game" (2018), online: *The Wall Street Journal* <<https://www.wsj.com/articles/meet-the-man-whos-spent-70-000-playing-a-mobile-game-1521107255>> [perma.cc/8YPB-3DYD].

¹⁴⁶ Chris Grove, "ESPORTS & GAMBLING: WHERE'S THE ACTION?" (2016), online (pdf): *Eilers & Krejcik* <<https://www.ekgamingllc.com>> [perma.cc/9X97-J8QB].

¹⁴⁷ *Ibid.*

¹⁴⁸ Shaun Assael, "Skin in the Game" (2017), online: *ESPN* <<http://www.espn.com>> [perma.cc/C9PE-4597].

¹⁴⁹ coolman2347 "So it all started as a fun game betting hobby to put in \$15, \$20 skins and have fun with the games" (October 5, 2015) posted in *17, Spent and Lost over \$3,000 for Betting*, online: *Reddit* <https://www.reddit.com/r/GlobalOffensive/comments/3nmtrs/17_spent_and_lost_over_3000_for_betting/> [perma.cc/CQJ9-FKQJ].

weapon, the skin, how the item was obtained, and other chance-based factors. A particularly rare skin was sold on a third-party trading site for approximately \$61,000.¹⁵⁰

The effectiveness of loot boxes on eliciting excessive spending is revealed when consumers discover the cumulative amount they've spent on microtransactions. After Steam implemented a way for players to check the total amount that they've spent on a game through their Trading Card system, some players discovered they had dropped thousands on the platform, with one user having spent \$17,000 on in-game microtransactions including loot boxes.¹⁵¹ In May 2018, a UK citizen discovered he had spent over \$16,000 in two years on FIFA Ultimate Team after exercising his right to his data stored by Electronic Arts.¹⁵²

One of the largest sums spent on microtransactions was in California, where a man pled guilty to wire fraud and money laundering, including defrauding his employer through hundreds of unauthorized credit card transactions.¹⁵³ His duties as controller for the company included the accounting department, which enabled him to conceal fraudulent transactions by falsifying financial records. His conduct from May 2008 to March 2015 caused his employer to suffer a loss of \$4.89 million dollars, \$1 million of which was spent on microtransactions in the online video game of War. A Belgian minor also spent \$46,000 on the same game via \$100 packs of in-game currency.¹⁵⁴

A 2012 survey of 1000 Japanese social game players offered some insight into the consumer mindset after engaging in microtransactions.¹⁵⁵ 485 of the surveyed population spent money on microtransactions, with 2.3% averaging

¹⁵⁰ Victoria Rose, "CS:GO fan drops \$61K on rifle skin signed by tournament MVP" (2018), online: *Polygon* <<https://www.polygon.com>> [perma.cc/888M-VVMJ].

¹⁵¹ Alex Walker, "You Probably Haven't Spent As Much In-Game As This Person" (2015), online: *Kotaku* <<https://www.kotaku.com.au>> [perma.cc/327S-344R].

¹⁵² Wesley Yin-Poole, "FIFA player uses GDPR to find out everything EA has on him, realises he's spent over \$10,000 in two years on Ultimate Team" (2018), online: *EuroGamer* <<https://www.eurogamer.net>> [perma.cc/RH5J-7EMU].

¹⁵³ Plea Agreement, United States of America v Kevin Lee Co, 2:16-cr-00167-TLN (2016).

¹⁵⁴ Menchie Mendoza, "Belgian teen spends \$46,000 in free-to-play 'Game of War: Fire Age'" (2014), online: *Tech Times* <<https://www.techtimes.com>> [perma.cc/9B6Z-8DRZ].

¹⁵⁵ Tomioka Akira, "ソーシャルゲーム、課金ユーザーの約6割「お金を無駄に使った」と後悔.....Fastask調べ" (2012), online: *RBB Today* <<https://www.rbbtoday.com>> [perma.cc/2YQ7-WVED].

over 30,000 yen each month.¹⁵⁶ 60.6% of the population experienced buyer's remorse and regretted their purchase, though only 41.2% of those regretting their purchases stated they would spend less in the future.¹⁵⁷ Interestingly, only 31.9% of the surveyed individuals stated that their spending habits were not affected by the kompu gacha ban and 6.2% experienced an increase in social game spending.¹⁵⁸

XI. INDUSTRY ATTITUDE TOWARDS CHANCE-BASED MICROTRANSACTIONS

Electronic Arts is infamous for its support of loot boxes within the video game industry. In 2017, the company stated that “the crate mechanics of Star Wars Battlefront II are not gambling” because “a player’s ability to succeed in the game is not dependent on purchasing crates”, that crates can be earned throughout the game, and that players are always guaranteed to receive usable in-game content.¹⁵⁹ After Belgium’s Gaming Commission published its report on loot boxes¹⁶⁰, Electronic Arts’ CEO emphasized his opinion that loot boxes do not constitute gambling in a May 2018 investor call. His reasons were “firstly because players always receive a specified number of items in each pack, and secondly we don't provide or authorize any way to cash out or sell items or virtual currency for real money”, which is very specific language targeted at Belgium’s analysis of loot boxes.¹⁶¹

Heir, a former developer for BioWare, criticized Electronic Arts’ monetization policies, stating that there is a push for games that can be subjected to monetization tactics that generate more revenue.¹⁶² He explained that microtransaction revenues are so significant that many games are featuring

¹⁵⁶ *Ibid.*

¹⁵⁷ *Ibid.*

¹⁵⁸ *Ibid.*

¹⁵⁹ Jasmine Henry, “EA CEO Explains Why Loot Boxes in Video Games Aren’t Gambling” (2018), online: *GameRant* <<https://gamerant.com>> [perma.cc/BL37-2GKF].

¹⁶⁰ *Ibid.*

¹⁶¹ Tom McShea, “EA adamant loot boxes aren't gambling” (2018), online: <<https://www.gamesindustry.biz>> [perma.cc/J26Q-3887].

¹⁶² Robert Purchase, “I’ve seen people literally spend \$15,000 on Mass Effect multiplayer cards” (2017), online: *EuroGamer* <<https://www.eurogamer.net>> [perma.cc/2V9Z-R6FH].

multiplayer functionality due to the constant income that microtransactions offer in comparison to a single purchase.¹⁶³

Developers of triple-A and indie game titles offered their opinions on microtransactions in interviews with PCGamer, a media site focused on PC video game software and hardware.¹⁶⁴ Usually, management decides on the monetization model of the game, which includes the decision to feature specific types of microtransactions.¹⁶⁵ This decision is made early in the project and determines gameplay and how gameplay features are designed.¹⁶⁶ Ultimately, this leaves the development team with the decision on the specific items to be featured in microtransactions and other game content.¹⁶⁷ Though developers can choose how the microtransactions work within the game, management make the decisions that decisions that potentially impact revenue and dictate what the final product will look like.¹⁶⁸

Opinions regarding these models were mixed when considering the rising cost of game development due to improvements in gaming hardware and software.¹⁶⁹ There are higher standards for game development due to technological advances and benchmarking against current games, which leads to significantly greater financial investment into development. The developers acknowledge the company's need to turn a profit, though conflicted between how it should be done so.¹⁷⁰ Some developers have suggested decreasing prices of triple-A titles to increase quantity sold as the standard \$60 price point contributes to the expectations of players to "get their money's worth."¹⁷¹ Loot boxes and other microtransactions were acknowledged as good alternatives to one-time purchase models, though they state this has a material effect on the design process which shifts the focus on development from the gameplay and consumer enjoyment to incentivizing players to spend money.¹⁷²

¹⁶³ Wes Fenlon, "The case for and against loot boxes, according to developers" (2017), online: PC Gamer <<https://www.pcgamer.com>> [perma.cc/T5RF-LFAK].

¹⁶⁴ *Ibid.*

¹⁶⁵ *Ibid.*

¹⁶⁶ *Ibid.*

¹⁶⁷ *Ibid.*

¹⁶⁸ *Ibid.*

¹⁶⁹ *Ibid.*

¹⁷⁰ *Ibid.*

¹⁷¹ *Ibid.*

¹⁷² *Ibid.*

There is a clear disconnect between management and developers within the industry which may be attributed to the impact of decisions regarding monetization models. Company executives are often incentivized to select monetization models that generate more revenue as most compensation structures offer generous bonuses as merit pay for exceeding projected earnings. There is also often pressure to pursue such tactics from other external sources such as competitors pursuing such monetization models and shareholder expectation. In contrast, developers do not receive comparable compensation packages and external expectations revolve around timelines and development rather than revenue. They are in the best position to understand consumer sentiments towards these tactics given their central role in development. However, it is undeniable that the parties benefiting most from such decisions are the members of senior management who are responsible for making such decisions.

XII. ANALYSIS

Looking at the precise language within Canada's legislation, it is evident that it is currently ill prepared to address the topic of microtransaction regulation. Section 206(1) and 207(1) of the *Criminal Code*¹⁷³ place a heavy focus on traditional lotteries and casino games. There is limited research on microtransaction gambling within Canada demonstrating a lack of priority placed on the issue, though there are fewer publishers of games relying on microtransaction monetization are located within Canada than in foreign jurisdictions. Furthermore, as the current gambling legislation does not have any regulatory effect of the industry, the focus shifts to other sources of legislation for potential guidance.

Consumer protection laws within Canada are legislated both federally and provincially. The *Competition Act* is Canada's federal consumer protection legislation that covers areas such as safety, anti-competitive practices, and privacy.¹⁷⁴ An example of provincial consumer protection legislation is Manitoba's *The Consumer Protection Act*, which regulates areas such as purchase of goods and services, contracts, product quality and defects, licensing, and agencies.¹⁷⁵

¹⁷³ *Supra* note 14 at s 206-207.

¹⁷⁴ *Competition Act*, RSC 1985, c C-34.

¹⁷⁵ *The Consumer Protection Act*, CCSM c C-200.

A common theme throughout the *Competition Act*'s provisions on deceptive marketing practices is that practices that qualify as misleading or deceptive are matters that are reviewable by an administrative tribunal.¹⁷⁶ Section 74.01(1)(a) specifies "a representation to the public that is false or misleading in a material respect"¹⁷⁷ which acts similarly to foreign provisions addressing the advertising of lootbox rates and the banning of complete gacha by Section 5 of Japan's *Act Against Unjustifiable Premiums and Misleading Representations*.¹⁷⁸ However, the language of "material respect" is uncertain and the concept of materiality is debatable. The language is strengthened by section 74.03(5) which states that proceedings under 74.01 will consider "the general impression conveyed by a representation as well as its literal meaning",¹⁷⁹ though the lack of addressing concepts such as inducements and exploitation of decision heuristics weakens the language in context of chance-based microtransactions. Section 74.1(5)¹⁸⁰ lists a number of aggravating and mitigating factors which include "the vulnerability of the class of persons likely to be adversely affected by the conduct", "the gross revenue from sales affected by the conduct", and "the financial position of the person against whom the order is made." This offers some recourse against the uncertainty of 74.01(1)(a), though only in the context of damages.¹⁸¹ Provincial consumer protection legislation is less helpful than its federal counterpart. *The Consumer Protection Act* fails to address the topic of virtual goods and mainly regulates quality, defects, and delivery of physical products, amendment, cancellation, expiry, and extension of contracts for phone services, and other topics on financial and physical goods.

The weakness of Canadian legislation lies in the specificity of its language. Much of the existing legislation revolves around the form of gambling through language that target traditional lottery games. The lack of a legal definition of the term "gambling" and no clearly delineated elements nor principles that would indicate a gambling activity led to an inflexible regulatory scheme that is easily circumvented by innovated gambling systems.

¹⁷⁶ *Supra* note 176.

¹⁷⁷ *Ibid* at s 74.01(1)(a).

¹⁷⁸ *Supra* note 24.

¹⁷⁹ *Supra* note 176 at s 74.03(5).

¹⁸⁰ *Ibid* at s 74.1(5).

¹⁸¹ *Ibid*.

It would be in the interest of consumers generally for microtransaction practices to be restricted from a mental public health policy perspective given that tactics to push chance-based microtransactions onto consumers or to entice them into purchasing them involve exploiting a decision heuristic which leads to dysregulated behaviours such as gambling addiction. The fact that minors are prohibited from participating in traditional gambling activities demonstrates that the legislative intent behind current gambling laws includes the protection of minors which supports implementation of new law that furthers this purpose. Considering the cases of dysregulated behaviour induced by chance-based microtransactions, adopting a proactive approach to regulation of the industry as opposed to a reactive approach would be a prudent course of action in promoting the health of Canadian citizens. Such an act would encourage industry members to pursue healthier monetization models that are historically well received among consumers.

There is an argument against strict regulation, which is that the lack of regulation encourages healthy competition and allows for development of innovative business strategies. However, there is evidence of a preference of industry members to implement chance-based microtransactions demonstrated by its ability to generate greater revenues at a lower cost and in less time in comparison to other monetization models. Leaving such a trend to further grow unchecked would be to accept the exploitation of minors and the development of mental disorders in young adults given the demonstrated psychological impacts that result from long-term engagement.

XIII. GAMING AND CONSUMER PROTECTION LEGISLATION POLICIES AND OBJECTIVES

Consumer protection legislation is focused on protecting consumers from assenting to terms of a contract that they are not aware of or do not understand and therefore may be easily misled. In the United States, “contemporary state consumer protection legislation whether enacted or proposed, is addressed to a wide range of deceptive or unfair trade and credit practices and contract terms and seeks to implement this regulation through a stronger mix of public and private remedies.”¹⁸² Furthermore, the Uniform Commercial Code contains an “overriding theme [of] insistence upon reasonable behavior ... and

¹⁸² Richard E. Speidel, “Unconscionability, Assent and Consumer Protection” (1970), 31 University of Pittsburgh LR at p. 359.

increased opportunities for informed consumer choice”¹⁸³ and a “basic policy of preventing ‘oppression’ and ‘unfair surprise’.”¹⁸⁴

The core purpose behind gaming law is to protect the public and the overall integrity of gaming. Current Canadian legislation encompasses such ideals, though ill-suited to addressing loot boxes. Gaming and consumer protection legislation, when taken together, suggest a blended purpose of protecting consumers from exploitative practices through informing consumers and insisting upon reasonable behaviours to protect the integrity of gaming. However, one must also consider that minors are prohibited from engaging in gambling activities and that businesses are not permitted to service or even allow minors into the premises alone.

Considering the separate policies and objectives that each area of legislation addresses, the combination of these parts will lead one to conclude that legislative reform is required to properly address chance-based microtransactions. As the behaviours exhibited by those purchasing and opening loot boxes share a striking similarity to individuals playing slot machines in a casino, a strong argument arises to subject loot boxes to the 18+ age rule.

However, it must be recognized that though protection of consumers is important, that businesses are not unduly hindered in engaging in reasonable profitable ventures. Businesses are not responsible for the behaviour of the consumer and consumers engaging in unreasonable and irresponsible spending should not lead to stifling entrepreneurial activities. They are, however, responsible for not enticing consumers to self-destructive behaviours through deceptive practices and exploitation of behavioural patterns. Games that mask the inducing of gambling behaviours, such as loot boxes, are in opposition of policy considerations pertaining to the protection of consumers, the mental well-being of individuals, and the protection of minors, particularly pertaining to development during adolescent years.

XIV. RECOMMENDATIONS

There are several viable approaches to regulating microtransactions which include restricting access of minors, increasing public awareness, limiting purchases of minors and young adults, regulating marketing tactics, and

¹⁸³ *Ibid.*

¹⁸⁴ *Ibid.*

prohibiting chance-based microtransactions entirely. Most regulations that are proposed or have been legislated are based on the identification of the similarities between gambling behaviours and the purchase and opening of loot boxes.

Increasing public awareness involves working with third-party agencies such as PEGI and the Entertainment Software Rating Board (ESRB) to amend game labeling and ratings. This approach was considered by the United Kingdom in their report though the effectiveness is suspect due to most games being accessible online which eliminates the need to physically purchase the product at a retail store that could potentially refuse to sell the game to a minor. Furthermore, most games adopting microtransaction monetization models are generally free-to-play which makes it more difficult for labels and ratings to have a material impact on accessibility and even awareness as children are unlikely to consider the rating when playing a game.

Restricting access to chance-based microtransactions is primarily targeted at protecting minors who are more vulnerable to the psychological effects of gambling activities. This would be possible through legislation or industry self-regulation to prevent minors from accessing microtransactions. Examples include a prohibition of the monetization model in games accessible by minors.

Limits on microtransaction spending have been adopted by some Japanese game developers by requiring the player to indicate their age prior to purchasing virtual currency. If the player is under a certain age, a maximum amount that can be purchased is imposed on the player and may go so far as to prohibit minors and young adults from purchasing any currency at all. This is not a legislative requirement and voluntary implementations of this approach are rare due to the negative impact it has on revenue generation. However, the effectiveness of this approach is very limited because most developers also specify the imposition of a purchase limit and the age at which it is imposed. This brings the intention of the publisher into suspicion regarding whether they truly intend to reduce microtransaction spending or were only doing as a show. Japan's self-regulating industry association has also attempted this in recommended a ceiling where players would be entitled to selecting a reward once they have spent a certain amount.¹⁸⁵ However, the guidelines of the association are not always followed such as by Nintendo's Fire Emblem Heroes. Another alternative is to impose regulations on

¹⁸⁵ *Supra* note 26.

platforms such as Google's Play Store and Apple's App Store to limit spending or to remove the ability to use a credit card if the account user is a minor.

Regulation of marketing tactics is generally covered under anti-competition laws and legislation on deceptive or misleading marketing practices. This includes Canada's *Competition Act* and Japan's *Act on Unjustifiable Premiums and Misleading Representations*, though Canada's legislation leaves much room for debate and does not go as far as the Japanese counterpart in specifying the likelihood of interfering with rational consumer behavior.¹⁸⁶ Consequently, the kompu gacha is legal in Canada, though non-Japanese developers are less likely to implement the gachapon in their games. However, such laws do not seem to affect gachapon variants where there is a definite ceiling to spending such as the Box Gacha the Sugoroku Gacha without the aid of clarifying the degree of "materiality" in potentially misleading representations.

Prohibiting use of chance-based microtransactions is an extreme approach towards the industry and is one that has been adopted by Belgium according to the language within the *Gaming and Betting Act*.¹⁸⁷ Most jurisdictions have demonstrated support for regulating the use of chance-based microtransactions through legislation over an outright ban. Prohibition demonstrates a stronger stance towards promoting mental health and against dysregulated behaviours and disorders than regulation. However, this begs the question of whether chance-based microtransactions are so damaging to mental health that the best interests of the public trump the interests of businesses to turn a profit. If an absolute prohibition is determined to be the optimal course of action, it would require a criminalization of chance-based microtransactions which is likely to be interpreted as an extremely radical approach.

One question regarding legislative and regulatory regimes of this subject include whether it should be legislated on a federal or provincial level. Looking to the division of powers delineated under Sections 91 and 92 of the *Constitution Act*¹⁸⁸ as well as current legislation of gambling regulation and consumer goods, one can determine that issues such as regulation of marketing tactics and minors' access to loot boxes are more likely to be of federal

¹⁸⁶ *Supra* note 24.

¹⁸⁷ *Supra* note 55.

¹⁸⁸ *Constitution Act*, 1867, 30 & 31 Vict, c3, s 91-92, reprinted in RSC 1985, Appendix II, No 5.

jurisdiction given the mental health and safety concerns. Market regulation is also more likely to be of federal jurisdiction as a power over the regulation of trade and commerce. Furthermore, given the digital nature of microtransactions, there is a compelling argument that federal legislation would create a national standard with provinces having the ability to further restrict that standard such as prohibition of purchasing chance-based microtransactions, thus operating similarly to the current gambling laws in Canada. Furthermore, the Supreme Court held in *Reference re Pan-Canadian Securities Legislation* that delegation of law-making powers is constitutional¹⁸⁹ and, given the potential issues that would arise in differing provincial legislations, it would make sense for legislation to have a similar objective “to establish a unified and cooperative system” for the regulation of microtransactions in Canada.¹⁹⁰

Industry self-regulation is also a possibility, though enforcing cooperation amongst competitors is difficult and there are potential issues of partisanship. However, Japan and South Korea have demonstrated that such cooperation is feasible. Industry members may also be incentivized to consider the public interest if the legislature offers lesser regulatory schemes in exchange for monetization practices that are less exploitive in nature. However, self-regulation will require mandatory compliance from industry members as there an incentive to not comply with voluntary guidelines to get ahead of competitors.

In addition to chance-based microtransactions, the betting of cosmetic goods is a major topic to consider. As skin gambling evaded the scope of Canadian legislation on a technicality, there may be a necessity to bring the activity into regulation. Overall, considering that definitions within Canadian gambling legislations act significantly restrict the applicability of gambling laws, adopting foreign approaches to legislation may overcome the largest barrier to the effective regulation of microtransactions in Canada. Current wording restricting gambling activities to require “money” and “valuable consideration” eliminates the possibility of including non-convertible in-game items.¹⁹¹ Likewise, the use of “tickets” and “lots” prevent gambling from expanding beyond traditional lottery and raffle formats.¹⁹² Looking at Belgium’s gambling

¹⁸⁹ *Reference re Pan-Canadian Securities Regulation* 2018 SCC 48 at para. 75-76.

¹⁹⁰ *Ibid* at para. 22.

¹⁹¹ *Supra* note 14 at s 206(1).

¹⁹² *Ibid*.

definition, section 2(1) of the *Gaming and Betting Act* states that a game of chance includes “a stake of any kind” and consequences where there is “a gain of any kind in favour of at least one of the players.”¹⁹³ This is contrasted from Canadian legislation where Canada requires a “risk of loss” which fails to cover guaranteed prizes.¹⁹⁴ Considering the loss-averse nature of human beings, designing loot boxes to guarantee prizes may be actually more effective in enticing purchasers. Consequently, Canadian legislation will need to move away from specifying a “risk of loss” as legal compliance would more effective in encouraging consumer spending and look towards identifying the elements of gambling.

Finally, a review of the definition of “financial value” will be beneficial in guiding future legislation. Virtual currencies that are non-convertible into legal currencies generally escape provisions that define value in terms of legal tender. This has led to the ability of non-convertible currencies being able to circumvent legislation and take advantage of a loophole in the law. In summary, Canadian legislation will become much more effective at catching innovative forms of gambling if a clear legal definition is established and the elements of gambling clearly delineated. Defining the substance of gambling ensures proper identification of any such activity. This shift in focus of substance over form will establish a more reliable regulatory scheme.

XV. CONCLUSION

Canada is behind global trends given the proactiveness of foreign jurisdictions and the relative inaction of Parliament and the legislatures in addressing the issue. It would be in Canada’s best interest to establish a regulatory scheme that limits harmful industry practices or promotes healthy business practices that further public policy objectives considering that the gaming market is still rapidly growing. Given the pervasiveness of microtransactions in gaming and the increase in pathological gambling behaviours, it is important to address the issue before gambling disorders become more prevalent within the Canadian population. As the passing of laws is not a swift process, immediate action may not be as fast as one would believe. Consequently, maintaining inaction will cause Canada to adopt a reactive or passive role to industry trends and is likely to lead to future delays

¹⁹³ *Supra* note 55.

¹⁹⁴ *Ibid* at s 207(1).

that have greater impacts. The common law system itself is reactive as issues must arise prior to judicial rulings on application of the law – for Parliament and the legislature to stand idly and fail to take initiative will be reflected in devastating consequences in the long run. The numerous approaches taken by other countries offers Canada the opportunity to identify the rational of the approaches and formulate its own unique solution that will not only resolve this legislative downfall but serve as an example to improve future legislative reforms and strengthen regulatory regimes.

