

**The rise of gambling mechanics in the video
game industry: A consumer behavior research
and comparative analysis with traditional
gambling to assess the need for a change in
Swiss regulations**

**Bachelor Project submitted for the degree of
Bachelor of Science HES in International Business Management**

by

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Geneva, 02.06.2021
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Disclaimer

This report is submitted as part of the final examination requirements of the Haute école de gestion de Genève, for the Bachelor of Science HES-SO in International Business Management. The use of any conclusions or recommendations made in or based upon this report, with no prejudice to their value, engages the responsibility neither of the author, nor the author's mentor, nor the jury members nor the HEG or any of its employees.

Acknowledgements

This project was only feasible with the help of several individuals that helped me throughout its completion. As such, I would like to acknowledge the contribution of various people.

First and foremost, I would like to thank my mentor Mr. Christophe Courbage for his support, advice, and guidance. His recommendations helped me centre my work on what really matters and guide me throughout this process.

I would also like to thank the contribution of the different people I interviewed to gather insights into the mind of the consumers. In particular, I express my gratitude to the person who participated in the in-depth interview for his time, honesty and making himself available for any question I might have.

Finally, I would like to thank everyone who took the time to answer my survey and shared with me their experiences on the subject to help me better understand the population's standpoint.

Executive Summary

With the video game industry steadily growing into one of the most attractive markets available, companies try to optimise as much as they can the revenue generated and innovate to find new revenue models that stand out and increase their sales. It is in this environment that loot boxes started appearing and gaining momentum. Loot boxes, also defined as loot crates, are packs of virtual items that players can purchase, whose content is random, and the result is unknown before opening. The nature of the content varies in rarity and usually represents in-game items or customisation options. At their core, loot boxes are very similar to gambling as they both require an initial money investment, their result depends on luck, and the outcome has varying levels of value based on the rarity. This led to legislators around the world assessing whether or not they should be considered as gambling. The objective of this paper is to define if these similarities are cause for concern, cover whether or not Swiss law should apply and provide recommendations on what Switzerland should do in terms of regulations and population protection. What current research shows is that there is a significant relationship between loot boxes and problem gambling which can lead to negative physical and mental consequences, regardless of their features. The Swiss gambling law as it is today does not apply to most loot boxes but depending on some factors, a few should be considered and regulated as such. Finally, the primary data used in this research provides insights on the population's habits and opinion.

All in all, the author recommends applying existing gambling law on loot boxes with a cash-out feature as they fit the current definition of gambling in the Federal Act on Gambling. Another recommendation is to prohibit the access of this content in a paid form to minors and at-risk population such as people with a current gambling ban. Finally, the author recommends adding mandatory functionalities such as warnings of the dangers of problem gambling before purchase, transparency in the odds of the items available and a digital counter of the total money spent by a consumer on these items. The combination of these actions should help ensure that loot boxes remain a recreational activity rather than an addiction, protect the most vulnerable part of the population from the predatory methods used to motivate purchase based on cognitive biases, and help consumers make a more informed decision.

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1. Introduction

1.1 Context

Whether it is because of a new technology, a shift in consumer behaviour, a new trend, or the end of one, industries change and adapt to survive. Be it movie rentals that got replaced by streaming, film-based cameras being replaced by digital cameras or single payment software switching to subscription plans, markets adapt to maximise profits based on what the consumers want. The video games industry is no exception. With the emergence of mobile gaming and through trial and error, the big actors in that market realised that there was more than one way to monetise their products. Ten to fifteen years ago, the consensus was to invest in development, finish the product and sell it as a one-time purchase to recover the costs and make profits. But now we see multiple new ways of monetising which completely changes the pattern. For example, the company *Blizzard* popularised subscription-based purchase for their title *World of Warcraft* in exchange for regular content updates back in 2004. This completely shifted their revenue model from being concentrated around launch, to a regular inflow of revenue spread on the game's life cycle (1). With the industry growing, companies experimented with new ways to increase the longevity of their game and spreading their revenue stream over time. One example is the concept of expansion passes. Yet again popularised by *Blizzard*, the idea is to release additional content as a separate purchase for an existing game increasing its longevity and the revenue generated (2). Then came the era of digitalisation, where downloaded content surpasses physical copies sold and new content can be released and updated at any time. This opened a world of possibilities for the industry to increase and spread their revenue over time. Expansion passes evolved into DLC (Downloadable Content), a hybrid monetisation plan where the game is sold as a onetime payment and additional content is available later to be purchased and downloaded by users directly in their console without buying a new physical copy. The concept of microtransactions was introduced. Developers could release new digital content such as items or cosmetic changes for consumers to purchase for a small amount of money (3). New subscription plans were developed called "battle-pass" or "Season-pass" that add additional content to an existing game for a monthly fee. These new monetisation models are so effective, that it opened the door for a complete change in the way games are sold.

Where most games were developed for a long period of time then sold to the public to cover the costs, some games are now developed and released for free, solely relying on microtransactions, DLCs and additional content subscription for their revenue. These are called Free-to-Play (F2P) or Freemium games. Whereas the majority of users will not invest money in the game, the low percentage that do end up spending much more than they would have on a single payment purchase compensating those that do not. With the mobile gaming market relying on freemium titles, that monetisation model now represents 85% of the video games industry revenue (4).

But now that most companies follow the same model and that competition increased in the market, firms are looking into ways to optimise microtransactions by pushing consumers to purchase more and more additional content. This brought about a new way to sell that content called Loot Boxes.

1.2 Loot Boxes

The term “loot boxes” refers to packs of items in-game that players receive or purchase whose content is random and unknown before opening. The items it contains are determined at random, with varying degrees of rarity and different levels of perceived or monetary value. The nature of the content can vary from purely cosmetic changes to new characters or tools to be stronger in the game. As per the container, it can take many forms such as a chest, a pack of cards, a treasure, or a military crate. They can be found not only in Free-to-Play games relying on microtransactions for their revenue but also in paid titles like *Overwatch* as an additional regular revenue stream.

Another term to define them is *gacha*, from gacha games where players collect different characters through loot boxes. They are very popular in eastern countries such as Japan, China, and South Korea. An example of the success of this genre can be illustrated through the profitability of *Genshin Impact* released in September 2020 generating \$874 million in revenue in 6 months (5).

While they came to be a staple in most games, loot boxes were not originally digital. We can find examples of similar content to loot boxes before digitalisation and their use in the video games industry. *Magic the gathering*, a card game developed by *Wizards of the coast* had a similar system back when it released in 1991. Back then it was about purchasing physical packs of cards at retail stores. The core concept was the same, buying a pack of content with unknown cards inside determined randomly with mostly

low rarity and value cards with a small chance of finding something of larger perceived value. The idea was reused later to sell *Pokémon* cards or *Panini* stickers, and those three companies still sell them to this day. An interesting fact to bring up is that while *Magic the Gathering* and *Pokémon* still sell physical cards in the same manner as before, they also developed online games that sell those cards digitally through loot boxes in their newly developed Free-to-Play games, illustrating the profitability of online microtransactions.

Here are two examples to illustrate what loot boxes can look like:

Electronic Arts is one of the key players in the video game industry with over 5.5 billion dollars revenue in 2020. They develop, publish, and distribute video games around the world (6). In their ongoing title *FIFA*, they sell loot boxes called *FUT* packs. They are part of a separate game functionality called *FIFA Ultimate Team*, where instead of having all the teams and athletes available from the beginning, consumers have to create their own team whose players are obtained through loot boxes. Users can acquire *FUT* packs through in-game progression by winning an in-game currency or bypass it completely by buying a separate digital currency with real money to open the packs. These loot boxes fall under the category of “game progression” where their purchase help the player to be stronger and progress faster through the game.

Counter-Striker: Global Offensive is a title developed by *Valve*. The game was one of the key titles to popularise the loot box system back in 2013(7). In this case, the player receives loot boxes through time spent playing and must purchase keys with real money to open them. The game also implemented a market system where players could sell and buy boxes and their content to each other for real currency. In this case the content found is purely cosmetic and brings no significant changes to the way the game is played. When a player opens a box, a wheel will spin through the content available similar to a slot machine and stop on the item the user has won.

Be it for cosmetic upgrades, faster game progression or collection purposes, loot boxes all have the core similarity of randomisation of the reward which is what makes the functionality appealing to players. While most rewards will have low rarity and value, the prospect of landing that rare or powerful item motivates the purchase by consumers.

1.3 Current situation

Today, loot boxes are predominant when it comes to microtransactions and their popularity increased significantly in the last 10 years. Between 2010 and 2019, this form of selling content went from being present in 4% to 71% of the most played computer games (8, 9). The growing market is expected to reach over \$20 bn in revenue by 2025 from the \$15 bn in 2020 (10). While companies are satisfied with the situation, more and more voices are raising against it. In recent years, due to their increase in popularity, consumers have criticised those microtransactions. While some find unfair that some players will have advantages because they invest more money in the game, others regret that they are limited in the amount of time they can play unless they use their credit card. Whilst microtransactions in general are increasingly frowned upon, loot boxes on their own caused controversy.

There has recently been a perfect example of the community's disapproval of loot boxes which led to huge losses for the developer. *Star Wars Battlefront II* was released back in 2017 by *Electronic Arts*. By using a world-wide famous universe beloved by fans and creating the game as a sequel to a hugely successful title, the project was supposed to be a major success. Where it all went wrong, is when the game revealed to be completely centred around the concept of loot boxes. In the game, progression was locked behind the opening of those content packs which were supposed to be obtained either through game time or by purchasing them with real currency. The backlash from consumers came from the fact that despite being sold as a standalone game for \$60 to \$80, they had to invest a considerable amount of either time, or money to actually have access to all of the content the game had to offer. A user made the calculations and reached the conclusion that a player would have to spend 2100 additional dollars or spend a massive 4528 hours playing to guarantee unlocking everything. Since that amount of time playing is unimaginable for a vast majority of people (it represents playing for 6 years every day for 2 hours), the players were forced to purchase the content on top of the game price, without even having the guarantee of receiving the content they wanted. This led to a controversy that spread across social media and massive refunds across the player base. To illustrate this, the *EA Community Team* made a statement on the social platform *Reddit*, which led to the most downvoted post in the 12-year history of the popular website (667'828 downvotes) (11). From there, EA had to disable the purchase of content with real currency before the game was even released. After a few months they tried to reactivate it, which was followed by another controversy, and finally decided to

disable it altogether. This resulted in the game missing its target sales, and EA executive Patrick Söderlund recognising the mistakes of the company publicly (12).

More than a proof of user's disapproval of loot boxes, this controversy is also believed to have put in the spotlight the similarities between them and gambling. Due to their nature, those content packs are different from other microtransactions. Instead of purchasing a product, consumers actually purchase the chance of obtaining the product they want. When considering that the content found inside differs in value and rarity, that there is a low probability of finding the best content and that some of them allow trading or even cash-back features that allow players to win money, it brings to light similarities with gambling. With the question on the table, legislators of various countries started to study the phenomenon to define whether or not it should be considered as gambling. Several countries already acted and changed their laws to factor in loot boxes, while many others are currently discussing and researching the subject. Consumers themselves have taken action against what they consider to be an unethical monetisation plan. In France for example, a few players have filed a lawsuit against *EA*. Their lawyer Mr. Karim Morand-Lahouazi claims the company takes advantage of players by forcing them to use money or be blocked in their progression (13).

Video game companies, on the other hand, completely deny the similarities between loot boxes and gambling. *EA* for example stated in front of the UK parliament that loot boxes are not akin to gambling but are rather completely ethical "surprise mechanics" (Kerry Hopkins, vice president of legal and government affairs at *EA*) (14) and while they stated that they do not push people to spend in their games (15), two internal *EA* documents recovered by *CBC News* showed proof that on the contrary the goal of the company is to drive players there (16). With consumers making their dissatisfaction heard, legislators regulating the matter and companies defending themselves, loot boxes have become a hot topic in the industry that warrant further investigation.

1.4 Structure of the thesis

The aim of this thesis is to shed some light on the subject through Switzerland's perspective. It will mainly concern the aspects of gambling similarities, possible regulations and consumer opinion and behaviour. The goal is to answer whether or not Switzerland should adapt its regulation, in the light of what other countries have done, regarding the rise of popularity of gambling mechanics in the video games industry and how the consumers would react.

It will cover gambling in general to define what it is at its core and what the dangers are for the population, especially younger audiences. It will then define whether loot boxes should be considered as gambling or not. As the purpose of the thesis is to ultimately provide recommendations, it will also cover the current Swiss law on gambling, whether it applies in this case and the current situation regarding the matter in Switzerland. To frame and compare these suggestions, a comparison and analysis of the various actions undertaken by other countries who already ruled on the subject will be included. Finally, it will cover an analysis of the perspective of Swiss consumers to have a better understanding of the public opinion on the possible regulations and their overall awareness on the matter.

2. Literature review

2.1 Gambling

2.1.1 Definition

In order to define whether or not loot boxes are akin to gambling, a clear definition of the latter must be set. While the term “gambling” speaks to everyone, defining it can be challenging due to the many different shapes it comes in. As a broad definition, this paper will define gambling as the act of placing something of value (either monetary or perceived value) at risk, in the hopes of gaining something of greater value (17). While in some cases skill can be a factor such as in poker, the determination of the outcome is based on luck and probabilities. This encompasses various activities such as horse betting, card games like poker or blackjack, sports betting, lottery, slot machines, and so on... In the 1950's, Perkins separated gambling into four different categories: Gaming (exchange of money during a game e.g. fruit machines), Betting (staking money on a future event e.g. horse racing), Lotteries (distribution of money by lot e.g. National Lottery) and Speculation (gambling on stock markets e.g. shares) (18). Through time, different researchers made their own categories, some denied speculation as gambling or others separated skill gambling with traditional gambling highlighting the difficulty of finding a precise definition for the subject. Despite that, the main similarities summarise gambling as an activity that necessitates risking value to acquire superior value based partly, or completely on luck.

2.1.2 History

In any case, this activity is not a recent matter at all. Evidence found in tombs and other locations proved that gambling was present as early as ancient China and Rome. One of the most famous examples comes from the bible when Roman guards gambled for the garments of Jesus during the Crucifixion. While the activity corresponds to our definition of gambling today, it was more related to divinatory purposes and closely intertwined with the concept of fate and fatality. Sanctioning and regulating gambling on the other hand started out during the 15th century when governments started to use it to raise money. Gambling houses became legal around the 17th century and sports betting became popularised in the late 18th century. Finally, the popularisation of the internet made gambling the most accessible it has ever been where consumer can gamble in various shapes from anywhere at any time (19).

2.1.3 Gambling definition in Switzerland

In Switzerland, the closest we can find to a definition of gambling comes from the “Loi fédérale sur le jeux d’argent” (LJAr). This federal law defined gambling by separating it in various categories (20). We find:

- Money games: games that, through money or a contract, gives causes to hope for a pecuniary or monetary gain.
- Lotteries: monetary game where an illimited or at least a significant amount of people can participate where the result is defined by a drawing of lot or similar process.
- Sport bets: monetary games where the result depends on the accuracy of a prognostic related to a sports event.
- Skill games: monetary games where the result depends completely or primarily on the skills of the player.
- Large-scale games: lotteries, sport bets or skill games exploited in an automated manner, in different cantons or online.
- Small-scale games: lotteries, sport bets or skill games that are not exploited in an automated manner, not in different cantons and not online.
- Casino games: monetary games where a limited amount of people can participate, with the exception of sports bets, skill games and small-scale games.

Overall, the category that best corresponds to gambling in general and loot boxes is the first one. The definition is closely linked to the ideas of money being involved and a hope for monetary gain.

2.1.4 Pathological Gambling

The main reason that gambling is as researched and regulated however is due to the risks it incurs. In published work, we find two main categories of gambling disorder: pathological gambling and problem gambling. First, pathological gambling is defined medically with set criteria for diagnosis. In the Diagnostic and Statistical Manual of Mental Disorders we find the set of criteria where five or more suggest to pathological gambling (21) (see figure 1).

Figure 1 – Pathological Gambling with the DSM-IV-TR criteria

DSM-IV-TR criteria ²	
A	Persistent and recurrent maladaptive gambling behaviour is indicated if the individual has five (or more) of the following:
1	Is preoccupied with gambling
2	Needs to gamble with increasing amounts of money
3	Has repeated unsuccessful efforts to control, cut back, or stop gambling
4	Is restless or irritable when attempting to cut down or stop gambling
5	Gambles as a way of escaping from problems or of relieving a dysphoric mood
6	After losing money gambling, often returns another day to get even (ie, "chasing one's losses")
7	Lies to conceal the extent of involvement with gambling
8	Has committed illegal acts to finance gambling
9	Has jeopardised or lost an important relationship, job, or educational or career opportunity because of gambling
10	Relies on others to provide money to relieve a desperate financial situation caused by gambling
B	The gambling behaviour is not better accounted for by a manic episode

Source: The Lancet (2011, p. 1877)

Pathological gambling, also known as compulsive gambling or disordered gambling, concerns approximately 1 to 3 percent of the population. It is considered as a mental disorder where the person will continue to gamble despite negative physical, psychological, and social negative consequences. Said consequences can include financial losses, degradation of mental and physical health, legal problems as well as social difficulties (22).

2.1.5 Problem gambling

Problem gambling on the other hand, is typically seen as a less serious version of pathological gambling. While the consequences are similar, they manifest with lesser gravity. Several screening instruments exist to identify problem gambling. For this paper, we will be referencing later the Problem Gambling Severity Index, which was adapted from the Canadian Problem Gambling Index. This screening method is used to identify different levels of severity in problem gambling with a set of 9 questions to which a person can answer with different levels of severity. The answer scale goes from 0(never), 1(sometimes), 2(most of the time) and 3(almost always). By summing the total from the answers as a score, the index interprets the total as 0=non-problem gambling, 1-2=low level of problems with few or no identified negative consequences, 3-7=moderate level of problems, leading to some negative consequences and >7=problem gambling with negative consequences and possible loss of control (21).

2.1.6 Cognitive biases in gambling

As per definition, gambling includes the risk a loss for a chance of winning something, through a process influenced by luck or statistics which makes it completely or partially out of the gambler's control. The odds of losing are also higher than the odds of winning which is how gambling providers are profitable. So, by taking these two points into consideration, if people were completely rational, no one would gamble. While the homo economicus is useful in economics models, the reality is that people come with illogical biases. Gambling in particular generates different cognitive distortions for people because the random nature of the game pushes individuals to try to rationalise the uncertainty by searching patterns such as the ones listed below (23). Identifying these distortions can help us find out what motivates people to gamble, and as such, if they also influence the motivation behind loot boxes purchase, we can assume a similarity between the two. One of the most used approach to study cognitions in gambling is Raylu and Oei's five factor model from which we will take predictive control, control illusion and interpretative bias (24). Other distortions will also be included such as the near miss effect, the sunk cost fallacy and the role of sensory feedbacks.

2.1.6.1 Predictive control

Despite most gambling activities relying on random ratio (RR) meaning that the probability of winning is indifferent to previous results, a bias has been found that pushes people to rationalise the unpredictability. Namely, predictive control refers to a person believing that the outcome is predictable, due to contingencies between cues and history of outcomes (25). This concept is also known as the gambler fallacy or the Monte Carlo fallacy. Abridged, this concept refers to a person assuming they have more chances of winning, based on illogical assumptions. An example would be a player believing the next outcome in a roulette game being black, because the last 5 outcomes were red. This belief comes from heuristics, where due to the difficulty of representing the real probability, people use heuristics to simplify their thought process. In this case, people tend to use representativeness heuristics which denotes an overestimation of their winning chances based on physical or psychological cues that ignore base data (26).

2.1.6.2 Control Illusion

Control illusion is related to the biased belief that the outcome can be influenced by certain actions or superstitious convictions. Again, in an effort of finding logic in the random nature of gambling, people use illogical beliefs to justify playing (25). Like a

roulette player only betting when the number 0 has come out in the last 10 draws or a person betting on sports events only in physical shops because they believe they will win more than online, these behaviours denote an irrational belief that they can control their chances of winning to rationalise taking the risk of playing. This phenomenon is also reflected when the player has to take action to find out the result. Studies show that people who actively participate in the game such as in throwing a dice will believe that they influence their chances of winning despite it having no concrete effect on the odds (21).

2.1.6.3 Interpretative biases

Another distortion comes when the result does not fit the player's expectations or to explain why they won. Studies found that even after the result, whether positive or negative, has been declared, players will try to find a way to rationalise it. Several versions exist such as blaming it on their dice throw, the lottery being rigged or by justifying their win on their experience or skills. These biases motivate playing by refuting the luck component of the outcome and replacing it with a controllable or verifiable influence leading them to believe that their next attempt will not rely on the same chances.

2.1.6.4 Near miss effect

While the three previous beliefs lead to justifying the outcome or a learning experience to improve their chances next time, the near miss effect is a factor that will encourage a behaviour by providing a false sense of reward. The sense of reward is known to be an influencer of motivation. In the case of the near miss effect, a person will consider a loss as a win, therefore motivating them to continue, because of they consider the result as almost a win. This belief is inherently illogical, because due to the activities being based on random ratio (RR), a near success does not imply the player almost won. The result is either win or lose with no in-between. Again, in an effort to rationalise taking a risk, a player will consider a close number on a roulette draw or a close result on a slot machine as a win despite it being irrational (27).

The near miss effect also has an additional consequence on the players. By showing that the player was close to a win, it also encourages the belief that the consumer has more chances to win by continuing, therefore encouraging risk taking (28). In the example of loot boxes in *CS:GO* mentioned previously, by showing that the wheel

stopped very close to a rare item, the player will think that he/she almost won and keep playing despite the probability being the same every time.

2.1.6.5 Sunk-Cost fallacy

The sunk-cost effect, also called sunk-cost fallacy is a cognitive bias that manifests itself after the consumer already invested a certain amount in an endeavour. Basically, instead of considering the money already invested as lost, it is seen instead as an investment that will be lost when the person stops playing. Usually used in economics, this concept also applies to gambling. To illustrate, a gambler will have the feeling that after investing a certain amount, he/she has to continue otherwise it will be money lost from nothing. While it is common in the population to have this bias, the moment this bias manifests itself, the gambling stops being about fun, and starts being about compensating losses which is considered as a factor in problem gambling (21).

2.1.6.6 Audio-visual stimulation/sensory feedbacks

Another notable influence related to risk taking for gambling is linked to audio and visual stimulation. A research by JNeurosci, found that sensory feedbacks influence players into gambling (48). Reward-related effects can potentially influence the behaviour of a player pushing him/her to play more. Highly present in casinos for example, these include dedicated lights that only flash when winning, loud sounds that manifest when a player hits the jackpot or animations that can only be seen when winning on a slot machine. This shifts the motivation from being based on rationale to the thrill of seeking these effects.

2.1.7 Conclusion

All in all, gambling has been present in society for quite some time. While heavily linked to religion and divination at its beginnings, it has evolved into a way to spend time and have fun in today's society. Despite the regulations having evolved from prohibition to simple control of who can access and who can provide, pathological gambling being recognised as a disorder points to a necessity of protecting the consumers. The possible negative consequences that an addiction (either pathological or problem gambling) can incur is neither beneficial for the individual or society as a whole. It is for that reason that gambling is today regulated, and communication campaigns warn about its dangers. From that angle, if loot boxes were to be defined as akin to gambling, consumers would also need to be protected and warned about the possible negative consequences it could

generate. Since the definition of gambling can vary, this paper will look multiple aspects to identify the link between loot boxes and gambling such as the definition of gambling in Switzerland and other countries, the existing research that points to a correlation between the two as well as whether or not the cognitive biases identified in gambling are also present in loot boxes.

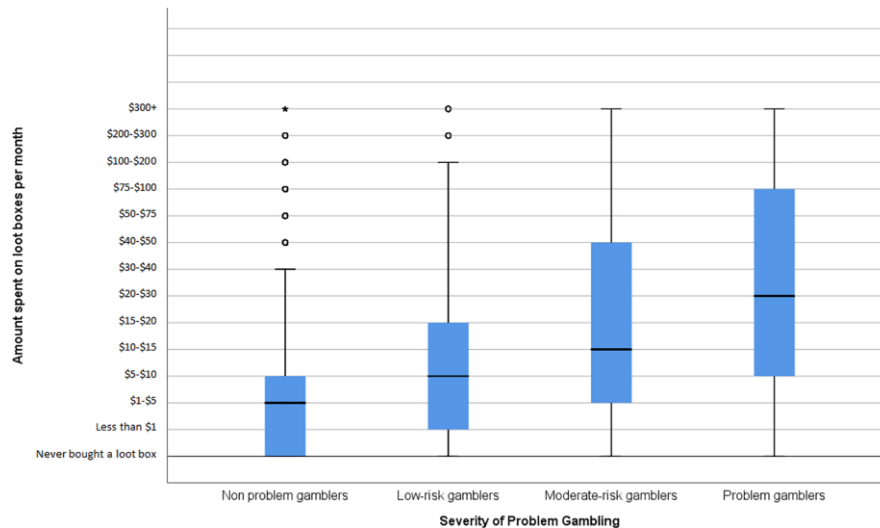
2.2 Should loot boxes be considered as gambling?

Considering the increase of loot boxes in modern video games and the various headlines they made because of their similarities with gambling, research was made in the last few years to identify whether or not these similarities were established. Independent researchers as well as some mandated by governments studied the case to find an answer. So, while there was a gap in the literature for this specific domain for quite some time, we can now find papers that elaborate on these similarities.

Most of the literature's focus is to find out whether or not loot boxes are linked to problem gambling, and how consumers interact with these specific microtransactions. One of the most referenced research on the subject is the one published by David Zendle and Paul Cairns. In this paper, the two researchers made a survey asking various questions about loot boxes and gathered answers through a popular gaming forum *Reddit*. With over 7'400 respondents, they applied the Problem Gambling Severity Index (PGSI) mentioned previously to weight what proportion of loot box buyers can be considered as problem gamblers. What they found is a relationship between spending and problem gambling. The higher in the problem gambling index severity, the more the consumer is likely to spend on loot boxes. This effect is also quite significant with a measure of $n^2=0.054$ which is larger than most correlations between problem gambling and other factors. For example, the link is as significant for loot box spending as it is for alcohol use for problem gamblers which was already proven. In summary, this study denotes that the higher consumers are on the problem gambling severity index, the more likely they are to spend on loot boxes. While this definitely hints to a similarity between these specific microtransactions and gambling, and that problem gambling leads to more purchase of loot boxes, it does not definitely mean that loot boxes lead to more gambling. Nonetheless the similarities are significant and should be taken into account by regulators. However, this study did suffer some limitations due to their data gathering method. Since the users were aware when asked to participate in the study that it

concerned loot boxes, respondents are more likely to have a strong opinion on the subject thus influencing the results (29).

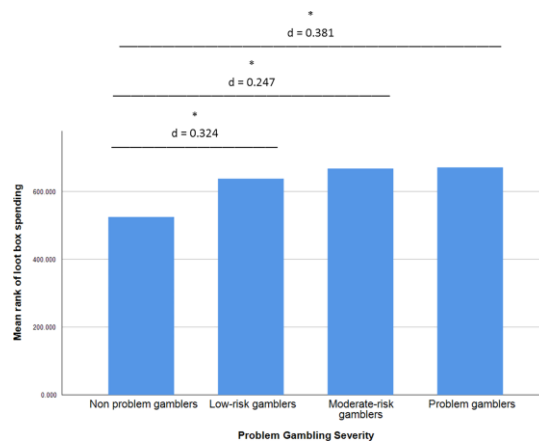
Figure 2 – Box-plot of spend on loot boxes, split by severity of problem gambling



Source: Loot boxes are linked to problem gambling: Results of a large-scale survey (2018)

To remediate to that possible bias, David Zendle and Paul Cairns did a replication study with a different sampling method. In the second study, they did not specify that it concerned loot boxes but rather spending in general to compensate for the limitations of the first one. Again, they used the Problem Gambling Severity Index (PGSI) on 1'172 gamers in the US. The results yielded an important relationship between loot boxes and problem gambling, again with an effect of $n^2=0.051$ similarly to their first study. This again proves that problem gamblers spend significantly more than low-risk gamblers on loot boxes (30).

Figure 3 – Bar chart representing pairwise comparisons of the effects of problem gambling on loot box spending.



Source: Loot boxes are again linked to problem gambling: Results of a replication study (2019)

Using a cross-national dataset, Marc von Meduna et al. made a similar research on the relationship between loot boxes and problem gambling. The research used the data of 6000 respondents, representative of the German population, that had participated in microtransactions. This study focused more on the Pay2Win aspect (games where spending money allows an advantage on non-paid users). They used the Problem Gambling Severity Index (PGSI) as well as an adapted version of said index to fit more appropriately the Pay2Win aspect of some games. What they found is that 46% of loot box users correspond to problem gamblers through the PGSI as well as 65% of everyday loot box users. With their adapted PGSI score for Pay2Win, the score shoots up to 70% of loot box users and 80% for everyday loot box users. Given the high ration, it shows indications that loot box spending is positively correlated with problem gambling again highlighting the relationship (31).

Other research was also conducted using different sampling methods and screening tools. In Søren Kristiansen's study, 5'000 Danish adolescents from 12 to 16 years old were contacted, drawn randomly from the Danish Civil Registration System. In total, 1'137 respondents completed the questionnaire which corresponds to the core demographic variables of gender and age. This time, instead of using the Problem Gambling Severity Index, they used the South Oaks Gambling Screen - Revised for Adolescents (SOGS-RA). This screening tool comprises 12 items to assess specific experiences regarding behaviours and feelings linked to monetary gambling in adolescent samples. It is also based on a score method to separate respondents in three groups: non-problem gamblers (score 0-1), at-risk gamblers (score 2-3) and problem

gamblers (score 4 or higher). In the end, while most adolescent gamers belonged to the non-problem gambler category, the study reached similar conclusions to the previous research. They found that those who engaged less with loot boxes (did not engage in the last 12 months) had lower SOGS-RA scores than those that do (32). Similarly, those who engaged more with loot boxes scored higher in the problem gambling screening tool. While this still concerns a vast minority of loot box purchases, the relationship is consistent throughout studies despite different populations, sampling methods and screening tools.

Table 1 – Forms of loot box engagement and problem gambling

	Non-problem gambler	At-risk gambler	Problem gambler	Total	χ^2
Not engaged in any form	98.6% (504)	0.8% (4)	0.6% (3)	100% (511)	$\chi^2 = 12.2$, p = 0.002
Obtained loot box	95.2% (380)	3.0% (12)	1.8% (7)	100% (399)	$\chi^2 = 4.7$, p = 0.097
Bought loot box or key to unlock loot box	92.6% (176)	3.7% (7)	3.7% (7)	100% (190)	$\chi^2 = 17.9$, p < 0.001
Sold items from loot box	87.3% (89)	7.8% (8)	4.9% (5)	100% (102)	$\chi^2 = 33.6$, p < 0.001

Source: Addictive Behaviors vol.102 (2022)

While those three studies are highlighted here, more were conducted and reached similar conclusions. In 2019, Wen Li conducted a survey via an internet-based research panel and gaming forums to reach 686 respondents internationally. Using again the Problem Gambling Severity Index, the research found that loot box purchasing was related to a higher problem gambling severity (33). Another study by Prof. Matthew Rockloff et al. at the Central Queensland University and funded by the NSW Government's Responsible Gambling Fund tackled the subject. They found in 2020 that, while there is no proof that buying a loot box would later lead to problem gambling, current users of loot boxes were more likely to be current gamblers, gamble more frequently and have more gambling problems (34). This highlights yet again the link between the two.

Finally, another relevant research concerning the subject approaches loot box spending by another angle. One argument that regularly comes back in debates on whether or not loot boxes are akin to gambling relate to the value of the items received. While the perceived value varies, the end product is still an item and not purely money. Some argue that since players do not win actual money, this type of microtransactions is not gambling. Nonetheless, some games include the functionality of cash-back feature or a way to make money from the contents. In some games, like CS:GO mentioned previously, items can be traded and sold for money translating to actual monetary gain. Other loot box providers defend themselves that since no such feature exist, they do not provide gambling but just a fun activity. To find out if cash-out features effectively define if these functionalities are gambling or not, David Zendle et al. conducted an additional research back in 2020 (35). Partly based on the previous research mentioned before, they tried to replicate the results between loot box spending and problem gambling taking into considerations features like cash-out. This time based on 1'200 participants the survey highlighted that, again, loot box spending is positively correlated with problem gambling, but more importantly that a cash-out feature does not influence the player's motivation to purchase loot boxes. So even if gambling is sometimes defined by a monetary gain being involved, research shows that in the case of loot boxes it has no significant effect.

3. Methodology

To meet its objective, this research relies on different data collection methods to clarify the subject, analyse the situation in Switzerland, understand the consumer's opinion and form recommendations. The data is comprised of two variants of primary data as well as secondary data.

3.1 Primary data

The primary data gathered for the sake of this research was collected to compensate the gap in knowledge regarding the matter in Switzerland. While other countries already published papers using national data, Switzerland has yet to do it. To that goal, information was collected through both surveys and an in-depth interview.

3.1.1 Survey

The goal of the survey was to ask the consumer's opinion regarding the matter, identify their awareness on the subject and understand their views on a possible regulation of loot boxes. The survey also collected video game consumption and loot box purchase habits to see how it influences their view. This will help estimate the population's reaction to a possible regulation or voting on loot boxes if it were to occur in the future.

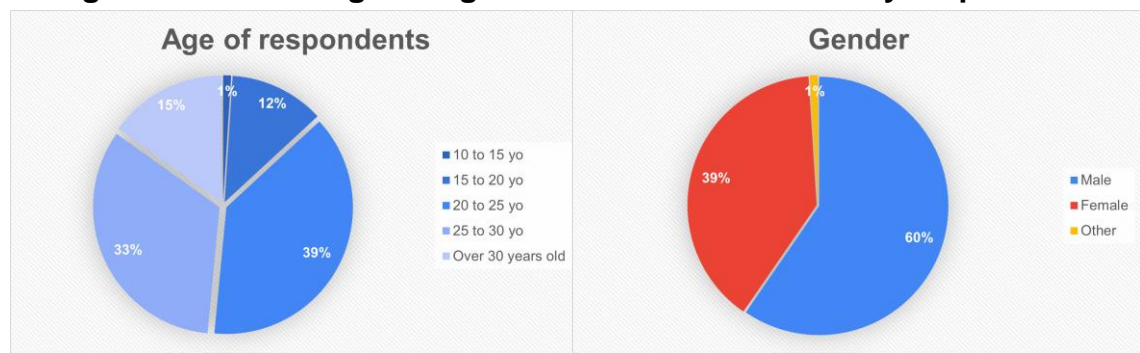
The survey was comprised of 22 questions divided in separate sections: Whether or not they play video games, did they purchase loot boxes, loot boxes purchasing habits, opinions regarding a possible regulation, awareness of the subject as well as demographic questions. It was constructed online on Google forms and answers were exclusively collected online due to the pandemic. Available both in French and English, the survey was shared through online messaging in chat groups or directly to users that were asked to share it forward themselves. From March to Mai 2021, 97 responses were gathered on the French version and 8 on the English version for a total of 105 respondents. Out of the 105, two responses were excluded for being incomplete, three were removed because the respondents were not Swiss residents and 1 was removed for duplicated answers on the French and English versions. All in all, 99 respondent's answers will be used for this analysis. The survey results can be found in appendix 1.

As per the segmentation, this research required a few different criteria. It needs to reflect the opinions of the various age groups, the different genders, different occupations, incomes, both video game players and non-video game players and finally both people

who interacted with loot boxes or not. Quota sampling was used to only have Swiss respondents and have a sufficient representation for each of the criteria.

In Switzerland age distribution is as follows: 25% of 0 to 19 years old, 32% from 20 to 30 and 43% over 40 (36). Looking at the distribution we can see that there are more respondents from 20 to 30 and less from the younger and older categories. Despite not being perfectly representative of the Swiss population, the age distribution is satisfactory for this research as the 20 to 30 years old group is more likely to have both experience in video games including loot boxes and being more aware on the matter. 15% over 30 years old and 12% for older and younger audiences respectively should be enough to get an estimation of their opinion.

Figures 4 and 5 – Age and gender distribution of survey respondents

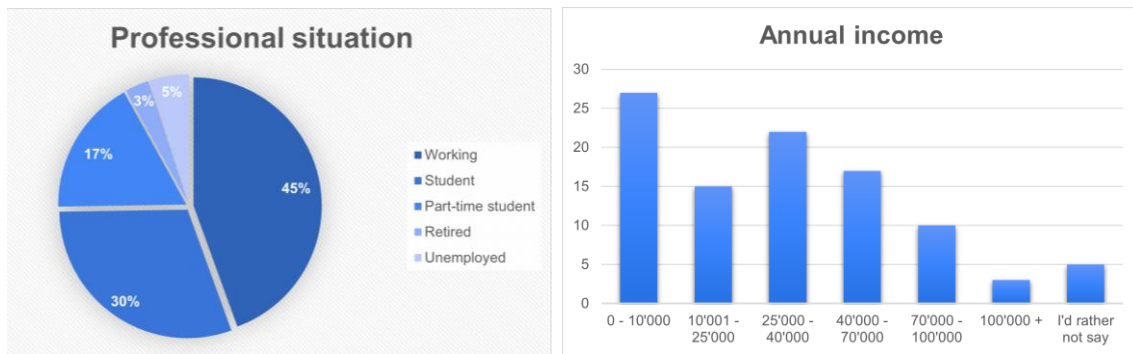


Source: Survey

As per gender representation, we find approximately a 60/40 distribution. While the distribution in Switzerland approximates 50/50 (36), this ratio is satisfactory. To be taken into consideration for this 10 percent difference is also the attractiveness and willingness to answer the survey based on gender. As found in Søren Kristiansen's research (32), loot box users are predominantly male, which makes the survey more attractive to them and more likely to share it forward with male friends. Nonetheless, the gender distribution is enough to be considered representative for the purpose of this research.

When it comes to the occupation of the respondents, we find an even distribution among students and employed people as well as some representation of the retired and unemployed population. Again, students being the most concerned category when talking about video games, therefore loot boxes, this distribution is satisfactory for the purpose of this research.

Figures 6 and 7 – Occupation and annual income of respondents

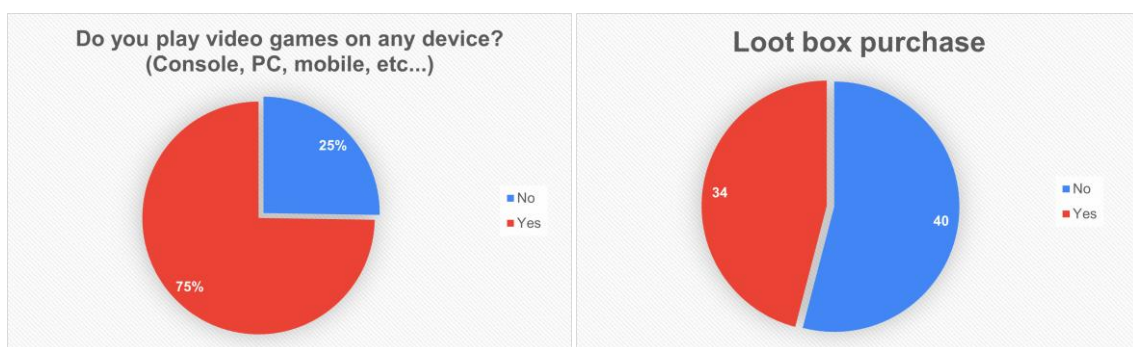


Source: Survey

The annual income of the people who participated in the survey follows the expected normal distribution of income. One exception concerns the to 0 to 10'000 CHF category. This is directly related to the fact that many students took part in the survey and therefore still have only partial if any income.

Finally, there were two other important characteristics that needed to be checked. In order to be representative of the opinion of everyone and not just people directly concerned by the subject, the survey needed to reach both people that play or not video games and also people who purchased or not loot boxes in the past. Looking at the data collected, the information collected does include both video game players and non-video game players. And within the ones that do, we have an even distribution between people who purchased loot boxes and those that did not.

Figures 8 and 9 – Video game consumption and loot box purchase



Source: Survey

3.1.2 Survey scope and limitations

Since the survey was used to gather both information about loot box consumption, awareness on the matter and opinions regarding a possible regulation to do a cross-analysis, it is not perfectly representative of the population of Switzerland. In order to have a valid representation of how people would vote, a different survey would need to be conducted. The second survey would need to better fit the demographics of the population as well as simulate the environment in which people usually vote. This could be accomplished by giving more extensive information on the pros and cons of their decision (as in the leaflet provided in voting slips) and a more precise definition on what the law and its impact are. As this is an exploratory research to find different possible solutions, it is not the case in this here.

The scope of the survey is also limited. First a larger number of responses would need to be included. Secondly, this survey was in a vast majority answered by residents of the French speaking part of Switzerland. Considering the disparity in culture and opinions found in Switzerland between the cantons, more responses would need to be collected from the German and Italian speaking parts of the country.

3.1.3 In-depth interview

While the survey provides valuable quantitative data, in-depth interviews add a qualitative perspective and provide a better understanding of the mindset of loot box consumers. To that purpose, an informal in-depth interview was conducted. The informal interview was not precisely structured with a step-by-step to allow the respondent to be more comfortable and provide more insightful answers. The discussion was repeated on four different occasions with the same respondent to gather additional information as the research moved along. The reworked notes, taken during the interview, can be found in the appendix 3.

For the purpose of this paper, the respondent agreed to fully disclose his answers during the interview as well as his personal history with video games under a pseudonym. As a summary of his situation, since his answers will be used in the analysis, Bertrand is a 25-year-old male working in the architectural industry. His consumption of video games started early around 10 years old and has not stopped since. Despite not playing as much as when he was a teenager, he still engages in the activity around 10 to 15 hours a week depending on his workload. Bertrand has had a lot of experience with loot boxes

on different games such as the mobile game *Brave Frontier* and the desktop game CS:GO mentioned previously. He estimates his spending on loot boxes alone around 700 to 800 CHF. Apart from rare occasions, he does not gamble either in casinos or betting.

The respondent also agreed to answer the Problem Gambling Severity Index and share his results. He fits the conclusion reached by existing literature whereas, despite not participating in traditional gambling activities, his involvement with loot boxes results in him reaching a score of 6. This score assesses him as a moderate-risk gambler which denotes a moderate level of problems that could lead to negative consequences such as overspending, losing track of time and feeling guilty about their gambling.

His comments and answers will be used as examples in the analysis or as verification for hypotheses.

3.2 Secondary data

As the debate surrounding loot boxes grew in popularity, there is extensive studies to understand the subject without duplicating research. This paper will rely on secondary data to understand the possible influence loot boxes can have on consumers. It will also make use of existing knowledge to define what gambling is as a basis for the comparative analysis.

The keywords used to find out about the influence of loot boxes on consumers were: Loot boxes; Loot boxes + gambling; regulation + loot boxes; law + loot boxes; danger + loot boxes

The keywords used to understand better gambling and its effects were: Gambling; addiction; gambling disorder; risk + gambling; behavioural disorder + gambling; cognitive biases + gambling

4. Results

First, the respondents were asked about their habits regarding video games and loot boxes. As mentioned previously, it provided data on whether or not they played video games and if interacted with loot boxes as a basis for filtering subsequent answers on these two factors. Then, the survey highlighted some data such as spending on these microtransactions and insights on the retrospective perceived value of these purchases. It also gathered whether or not they consider loot boxes similar to gambling and their opinions regarding possible types of regulations. The data presented in this chapter can be found in appendix 1 and additional resulting graphs in appendix 2.

4.1 Loot box data

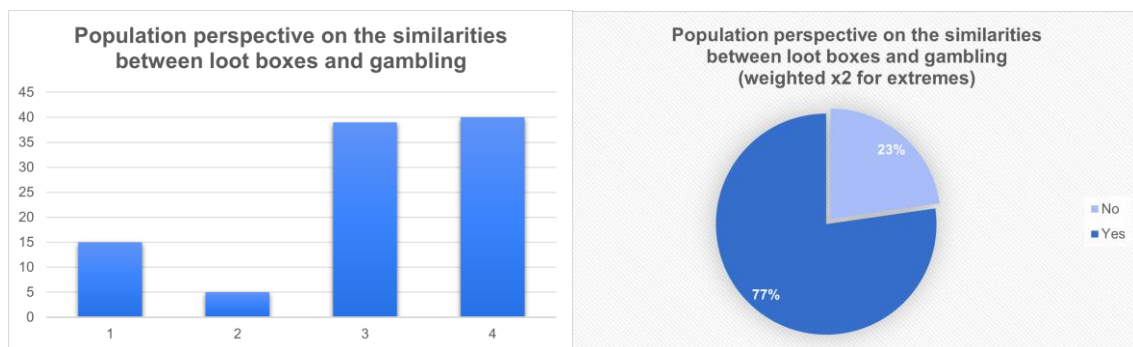
For the spending, we can see the majority, 31 percent, spent from 100 to 299 CHF and the second largest category were people who rarely purchased loot boxes with a spending from 1 to 20 CHF. The rest of the groups were relatively similar as can be seen in the appendix 2 (additional graphs from the survey). When asked if they experienced sunk cost fallacy while purchasing loot boxes, (if the amount spent previously influenced their motivation for continuing to buy such items), 34 percent answered yes. When factoring in the amount spent, we can see that those who spent a bigger amount on loot boxes experienced it more than sporadic users. On the other hand, the respondents who spent the highest amounts and regularly purchase them experienced it less. This suggests that the more a consumer purchases and experiences loot boxes, the more likely they are to suffer the cognitive bias with the exception of high-spending users that have a different mindset when they purchase those microtransactions.

The result when asked if they felt like they lost control of their expenses, which is also part of the Problem Gambling Severity Index, indicated that 14 percent do. Since loss of control is a difficult thing to admit and a key factor when assessing problem gambling, 14 percent is a high result. But comparatively, when asked if they regret how much they spent on those items, 45 percent answered yes suggesting that while consumers do not think they lost control, almost half regret the amount spent nonetheless. This denotes an unreasonable expectation of the outcome compared to the reality. It can hint that, when making the decision on whether or not to invest in these microtransactions, the consumers have a biased estimation of the value of the items they will win.

4.2 Similarity with gambling

What may be the most important question of the survey is whether or not the population considers loot boxes as gambling. After being given a brief description of what a loot box is and picture examples, the respondents were asked to assess the similarities between the two on a scale from 1-“Not at all” to 4-“Completely”. Around 15% answered 1, 5% answered 2, 39% answered 3 and 40% answered 4. By dividing the scale in two, with 1 and 2 disagreeing on the similarity, 3 and 4 agreeing, and weighting the extremes of the scale as double, we reach that 77% of the population agrees that loot boxes are indeed similar to gambling. By segmenting this question further based on age groups (Up to 20 years old, 21 to 30 years old and over 30 years old), whether or not they play video games and if they purchased loot boxes in the past, this distribution remains consistent despite different subdivisions (appendix 2). Overall, 74 to 80 percent of the population agrees that loot boxes are similar to gambling regardless of the segmentation. The only exceptions are the age group over 30 and the portion that does not play video games that have a slightly higher proportion of yes.

Figures 10 and 11 – Population perspective on the similarities between loot boxes and gambling: 1 “Not similar” to 4 “Similar” and weighted



Source: Survey

4.3 Opinions on regulation

Afterwards, the participants were asked how they would react on possible regulations of this product. The first question of this section was to assess their overall opinion by asking if they think the government should regulate loot boxes, again on a scale from 1 to 4. With weighted extremes, a majority of 63%, answered that yes, the government should have provisions in the law regarding this type of microtransactions. To check if their answer was dependent on their consumption of video games, the answers were divided by that factor. The result highlighted that non-video game players have a higher

propensity to ask for regulations. Gamers on the other hand were more mitigated in their answers with an almost equal amount being against and in favour of regulations.

By framing the answer differently and suggesting that they should be banned altogether, we see that the majority are against it with 75 percent rejecting a ban. This suggests that a drastic action such as this one is not what the population prefers. Asking if they would agree to a limitation instead, the amount of people that agree rises again to 79 percent. The participants were also questioned regarding their view on possible regulations only concerning minors and at-risk people purchasing loot boxes. In that case, a vast majority agrees that something should be done to protect these more vulnerable groups with 92 percent. Finally, contributors were asked to rethink their view if said laws would limit their access to some functionalities in games or would result in them being altogether unavailable in the country. In that case the results changed from before with an equal amount in favour and against. When assessing if their consumption of video games influenced their answer, the results highlighted that, logically, video game players were more likely to change their answers and be against regulations if it meant they would not be able to play the games they want because they include loot boxes.

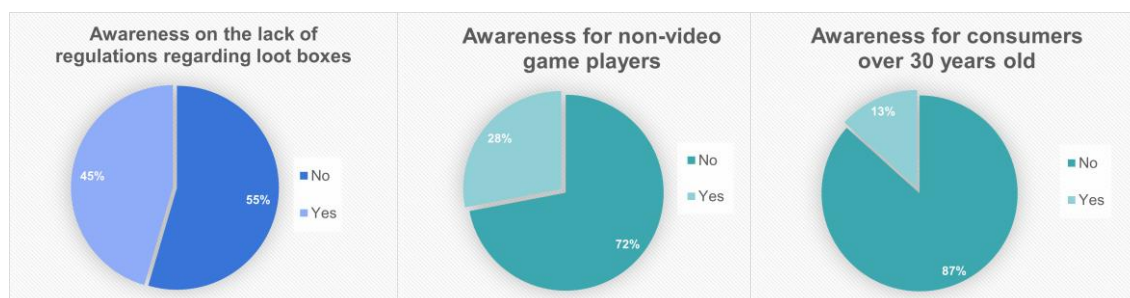
Overall, we can see that while a majority agrees that there should be regulations regarding loot boxes, the severity of such actions have a heavy impact on their answer. While an altogether ban of loot boxes is rejected by the majority, most want some limits to be put in place rather than just leaving them unchecked. Who is concerned by those regulations also influences their answer as over 90 percent agree that minors and at-risk population should be protected from such functionalities.

4.4 Awareness

The final section of the survey concerns the awareness of the population regarding loot boxes and the lack of regulations on the subject. In total, 55 percent of the population stated that they did not know about the situation before answering the survey. Having over half of the population being unaware of something that could possibly be harmful for some of its users is concerning. When looking at non-video games players specifically, the proportion of people unaware of this issue rises to 72 percent. From the standpoint of age groups, if we only consider the population over 30, the amount rises again to 87%. Considering the demographics of the respondents, we can assume that if the whole of the population were to be interviewed, the overall awareness on the issue would be even lower. In the age of information, where prevention is key in protecting

people from activities that can have a negative impact on their lives, having such a large proportion of the population being unaware that loot boxes could be cause for concern is undesirable.

Figures 12, 13 and 14 – Awareness on the lack of regulations regarding loot boxes in the population, for non-video game player and for consumers over 30 years old



Source: Survey

5. Discussion

5.1 Comparative analysis: Are loot boxes a form of gambling?

To finally answer who is right between the companies affirming loot boxes are just surprise mechanics and consumers calling them out as unethical practices, various points need to be taken into consideration. At its core, does it fit the definition of gambling? As set earlier, gambling is not easy to define precisely due to its variations. Nonetheless, we defined gambling as the act of risking something of value in the hopes of gaining superior value, with the result being influenced by luck. Looking at various loot boxes from *CS:GO*, *Overwatch*, *FIFA*, *Gachas* and all the major games, loot boxes do fit this description. Just as in gambling, the consumer risks the money he/she spends to purchase the loot box in the hope of getting a certain item that they perceive as more valuable than the cost of the microtransaction. Simultaneously, they know that the outcome depends on probabilities and will most likely not be the desired item and yet, consumers purchase them nonetheless.

5.1.1 Motivations for purchasing loot boxes compared to motivations to gamble

The survey highlighted some interesting insights into why people purchase such items in games despite it being irrational. For most, it was that feeling of success when they receive the desired item despite the odds. Others mentioned that the fact that they did not know what they would actually get was actually enjoyable. Finally, for the purpose of having an advantage on other players, for the cosmetic aspect or for the sake of collection were approximately equal in importance. The reason least mentioned was the idea to resell the item to make money which was barely represented in the survey. The first choice that defines that feeling of success closely resembles gambling where players look for that high when they win the jackpot. What about other less recognisable aspects that could drive a player to gamble? Does it apply to loot boxes as well?

Several biases were identified in regard to gambling that are directly applicable to these luck-based microtransactions. First the predictive control points to consumers using representativeness heuristics in their assessment of their chances to win a coveted item. When interviewed, our in-depth interview participant, mentioned that he believed he would get more luck if he purchased big amounts of loot boxes at a time, rather than regularly purchasing them in smaller quantities in the Gacha game called *Brave Frontier*.

Since the game is based on random ratio (RR), this belief is irrational and therefore should not be taken into account. But in order to rationalise his decisions, the participant created this false estimation to help justify his choices and actions in the hope of having better results.

The control illusion theory also applies. Gamblers look for an illusion of control when betting to justify taking a risk. Studies found that taking an active part in the act determining the result, such as throwing dice, leads to the consumer believing he can influence the outcome rather than just being at the mercy of the random ratio used by companies (21). This is very much present in loot boxes. In gachas for example, it is common when opening a loot box that an animation starts when the user presses a button, and then does not continue until the user takes an action. In *Dragon ball: Dokkan Battle* for example, the user has to drag a finger downwards on the screen and hold it for a specific amount of time. While it will not influence the result at all, the user still has this feeling of control.

Interpretative biases on the other hand are quite broad and could be applied to anything that results in an outcome that can be either beneficial or detrimental. Rationalising a loss by blaming it on external factors is quite common and can be applied to loot boxes. Examples include a player blaming their lack of luck, the game being rigged or the probabilities being wrong.

A more interesting aspect though is the near-miss effect. While it is marginally present in most loot boxes, some companies use it more than others. In the example of CS:GO mentioned previously, we see a clear use of the near-miss effect to motivate further purchasing of, in that game's case, keys to open military crates. The way their loot box system works is that the player, after obtaining a crate by playing or purchasing it and buying a key, can see the possible items available in the box as well as a wheel. When the user presses the "roll" button (again control illusion), the wheel spins through the various items, gradually slowing down until it stops on the item won. When the near-miss effect kicks in is when the player sees the item they won, they also notice the items right next to the result that they could have obtained instead. After some testing and from personal experience, the game tends to always display rarer items next to the item won in order to generate the feeling of "I almost had something great". The fact of the matter is that the items next to the one the player receives are completely irrelevant and in no way representative of what they almost won. The roll only defines the item received,

nothing else. In that case, the other items, displayed to generate the near-miss effect, have nothing to do with the result.

As highlighted from the survey, the sunk cost fallacy is as present in loot boxes as it is in casinos or other gambling environments. When asked, over 34 percent of respondents said that they had experienced it. While independent from the loot box system of the different companies the sunk cost fallacy, considered as a dangerous factor in gambling, is directly applicable to loot boxes with the same effect: Pushing to invest more.

The use of audio-visual stimulation is also replicated in these microtransactions like in slot machines or other casino games. They are considered as a key factor to assess the propensity to invest in slot machines. And while a replication study has yet to be conducted for loot boxes, similarities hint to a comparable effect. No matter the game, loot boxes always add visual and audio cues to their system to increase consumption. *Overwatch* uses a colour system when items pop-out of the box with different hues and sounds depending on rarity. *CS:GO* plays a special animation and sound when the rarest item has been won, *FIFA* doubles the length of the tunnel representing the pack opening with special animations and sounds for rare athletes and particularly gachas all have different effects and sounds depending on the universe the game is based on. This suggests that, as in the use of lights and sounds in casinos, companies push to the purchase of loot boxes by using audio-visual stimulation to encourage the user to pursue the jackpot that will bring forth the special animation and music.

Finally, there is another external factor that is worth considering. Present in both gambling environments as well as in video games, this aspect is not a cognitive bias per se, but can still influence the users in their purchasing decision. As highlighted in the example of *FIFA*, some companies do not allow the use of actual currency to purchase microtransactions and loot boxes. Instead, the user must first purchase a fake in-game currency with real money, and only then can use that alternate currency to purchase items. This exercise is directly aligned with casino practices to use chips instead of cash. Previous studies have shown that using chips instead of money can lead to a valuation bias that results in gambling more. This was proven in the case of poker players for example in 2010 (37). The use of fake currency in video game environments could therefore lead to a valuation bias as well, influencing the customer's purchase decision.

While the presence of similar biases does not prove that gambling and loot boxes are the same thing, the fact that they are present in both cases raises a question. If gambling

is considered to be a dangerous activity partly due to the cognitive distortions that influence the consumer's purchase decision, should loot boxes, presently considered as harmless microtransactions, be judged as potentially dangerous as well? While not enough in itself to make a definitive assumption, this aspect does imply a similarity between the two.

5.1.2 What the existing literature tells us

As highlighted in the literature review, extensive research has been conducted to define the dangerousness of loot boxes. The easiest way to go about answering this question was to use tools such as the Problem Gambling Severity Index to identify a possible correlation. While the various research done was based on different populations, segments and data collecting methods, all reached a similar conclusion. Loot boxes are indeed linked to problem gambling. Some delved in further by assessing whether or not the results were biased by asking respondents randomly rather than collecting potentially biased data from gaming forums resulting in the same findings. Some completely separated loot boxes from gambling interviewing only gamers that do not participate in traditional gambling, again to the same outcome. Some factored in different variations of loot boxes such as ones that promote their use by giving the player an advantage or only games that allow a cash out feature. Regardless of the methods used, all point to the fact that the more a player interacts with this specific type of microtransaction, the more he/she is likely to rank higher in the Problem gambling severity index and potentially suffer negative consequences.

This does not conclude by itself that loot boxes and gambling are the same thing. It hints however that loot boxes could have the same negative consequences that gambling does. This includes negative and physical aspects such as financial losses, degradation of mental and physical health, social difficulties and so on... This, combined with the similarities in the way those services are consumed and the related cognitive distortions, points to the fact that loot boxes are indeed gambling-like services. As such they should be regulated by law in order to protect at-risk consumers and minors as much as gambling is. But why is it that one is so heavily regulated and controlled while the other left completely in the hands of the companies? To answer that question a further analysis of Switzerland's provisions on gambling is necessary.

5.2 Laws on gambling and loot boxes

5.2.1 Gambling law in Switzerland

As presented earlier in the literature review, Switzerland divides gambling in different categories. The one that would fit loot boxes if they were to be considered as gambling is the first one: Money games. Those are defined as games that, through money or a contract, give cause to hope for a pecuniary or monetary gain. While it seems to be quite close to the definition of loot boxes, one aspect of the definition is the reason why, currently, the Swiss Federal Gaming Board does not act on the matter. First, Swiss law specifies that money needs to be involved not only at the beginning of the transaction but also in the result. In this case, players receive not currency but in-game content. This is one aspect that explains why these microtransactions are not concerned by gambling laws.

A second aspect concerns the definition of what a game is in the regulations. While the law does not specify an element of luck is necessary for an activity to be gambling, it needs to be a “game”. The use of the word “game” here is to encompass both activities based on luck and skill. This should include loot boxes as it relies on luck. However, Maria Chiara Saraceni from the Swiss Federal Gaming Board herself commented on the matter in an interview for the website *digitec.ch*. She stated that loot boxes are “a game within a game” and since it is only a small part of the computer or video game, cannot be considered a game in itself (38). This further separates the aforementioned microtransactions from gambling law. These two reasons do indeed conclude that loot boxes are not concerned by gambling law currently.

5.2.2 Laws on loot boxes abroad

Why is it then that other countries already acted on the matter? To understand better what the next course of actions is for Switzerland, looking at what other states have done is necessary.

Back in 2017, Belgium was one of the first countries to take a stand against loot boxes. Unlike Switzerland, the law there relies on two main factors to consider an activity as gambling: Outcome dependent on luck and an investment in value for a return of increased value. Therefore, an interpretation of the law issued by the Gaming Commission considered loot boxes as a form of illegal gambling (39). As such, loot boxes that could be purchased with money were banned from the country to which a failure to

comply would lead to a fine and up to 5 years in prison for the publishers of the concerned games (40).

The Netherlands, similarly, also consider gambling as a game of chance in which a prize or premium can be won. Therefore, those types of games can only be provided if the responsible organisation has a licence to do so. This led to the ruling that EA had to change how loot boxes worked in their game *FIFA* or they would face fines up to 500'000 Euros per week up to 10 million (41). The country set one provision to differentiate what they consider acceptable loot boxes to unacceptable ones: The ability to transfer the content to other parties such as other players (42).

China also has its own regulations regarding the matter. In this case, the law enforcement authority's discretion plays a key role in the matter since there is no specific definition of what gambling is. Nonetheless the Ministry of Culture and the State Administration of Publication, Press, Radio, Film and Television, made a comprehensive set of rules that publishers must follow. These dictate that: loot boxes cannot be purchased with real money (even with virtual currency bought with money), items in loot boxes must be obtainable by other means and not just in these specific microtransactions, game publishers must publicize information such as the contents of loot boxes and the probabilities of winning, and finally the results must be publicly disclosed, and records must be kept by game publishers for 90 days (43).

Other countries also delved into the matter. The UK parliament conducted research that deemed loot boxes as dangerous and issued recommendations. But no concrete action was passed into law yet. The United States of America, on the other hand, deemed that they do not constitute gambling (44). Overall, some countries decided to act, others issued recommendations that generated little to no change and others decided not to take action at all.

5.2.3 Conclusion

Looking at the law exclusively for Switzerland, loot boxes are not gambling. This is a simple fact due to the lack of direct monetary gain and these microtransactions being only part of a game. However, stopping here in the reflexion is simply irresponsible and akin to swiping the problem under the rug. While laws are what dictates what is gambling or not, they must evolve with time and adapt to innovations. The current gambling law was written with specific activities in mind and the fact that it does not apply to loot boxes

today does not mean that it should not. The two arguments made by Maria Chiara Saraceni from the Swiss Federal Gaming Board barely scratch the surface of what these functionalities imply. Taking the argument that loot boxes do not include monetary gain is proved wrong with simple research. *CS:GO* for example allows to trade these items to third party websites that in turn allow for a cash back in real currency. This leads to people gambling on cosmetic skins to resell them to other users to make profit. There has also been findings that some players sell their *FIFA* or other game accounts online to other players as soon as they get a rare item for hundreds if not thousands of CHF. This again constitutes pecuniary gain. Saying the law simply does not apply because of the lack of monetary outcome is plain wrong since there are ways to profit from rare items. More than that, the argument itself is inherently irrelevant. A research done by David Zendle et al. proved that cash back features do not impact how loot boxes link into problem gambling (45). The end goal of the law is not to prevent the population from making a monetary gain, it is to avoid problem gambling and the negative consequences it can generate. The idea of pecuniary gain is present because it is considered as one of the factors that can lead to problem gambling. But the fact of the matter is, that pecuniary gain is not the only factor and if an activity promotes unhealthy gambling for other reasons, people should still be warned and protected from its effects regardless to what criteria leads to it.

The second argument that loot boxes are only a part of a bigger game and as such are not a game by themselves is also wishful thinking. With publishers pushing more and more these functionalities due to their profitability, the role of loot boxes in games will continue to increase until they become fundamental to how the game is played. Even if it were not the case today, it is beneficial to act before the problems arise. Furthermore, by diving a little bit further in some of the most popular games, there is clear evidence that loot boxes, if not the core mechanic, are still a huge part of how the game is played. *Battlefront II*, cited earlier, is an example of it. *FIFA*'s game mode called *FUT* is indeed just one of the ways to play the game, but a considerable part of the consumer base only purchases those games for that precise functionality. Other video games such as gachas promote a certain gameplay, but the characters acquired through loot boxes are a core mechanic that completely change how the game is played and how far a player can progress in it. Again, the end goal of trying to define whether or not loot boxes are akin to gambling is not to simply arrive to a conclusion that gives a clear yes or no. The actual

purpose of this debate is to ask whether or not they constitute, like gambling does, a potential danger for the population in regard to addiction and unhealthy behaviours.

That can already be answered by existing research. Loot boxes are positively correlated to problem gambling regardless of cash out features, of pay-to-win aspects and gambling habits. This can then lead to negative physical and mental consequences. This is highlighted by the similar cognitive distortions found in both cases and the fact that companies use the same strategies to promote loot boxes as they do promoting gambling. This in itself should constitute sufficient evidence for the Swiss Federal Gambling Board or another governmental agency to put in place measures to protect the population. This is especially the case when considering that there is no correlation between the amount spent and the wealth of player. Research by James Close et al. showed that it is not the players that earn more that spend the most. The system is profitable not thanks to the wealthiest players, but rather by the players who score higher on the Problem Gambling Severity Scale (46). This is further amplified by the dreadful realisation that children actually interact with loot boxes and have free access to it. While it is impossible for a minor to enter a casino, they have free access to loot boxes, grooming them for future addictions (34). A little while ago, children did not have access to online purchasing unless their parents or tutors allowed them to use their credit card. Today however, any child can go to a store and buy a prepaid card for their favourite game with their lunch money or allowance to redeem virtual currency and purchase any microtransaction they want. Even if it were not the case, the low awareness of the population over 30 years old demonstrated through the survey shows that parents do not have a grasp of the potential harm loot boxes can cause. If the research shows that these functionalities can have negative influences on adults, one can only assume that the consequences grow exponentially when it concerns a minor. At-risk people, who already have their fair share of issues with gambling, still have complete access to loot boxes with no warning of their similarities with the activity that already caused them harm. Overall, the debate should not be based on the etymology of the law, but rather on what possible consequences loot boxes have. While the law does not consider them as gambling, they lead to similar negative effects, rely on the same principles, and are promoted using the same ethically questionable methods. As such, regulations or at least recommendations must be put in place to separate simply buying a new accessory for a virtual pet to an act of betting money in the hopes of getting something of value.

5.3 Possible actions

In terms of what actions could be undertaken, there is quite a range of possibilities. First and foremost, letting the market regulate itself is not a solution. As with gambling, when activities include a risk of addiction, the government needs to intervene for the well-being of the society. In this case, video game companies do not intend to change their practices anytime soon. This is highlighted by how fiercely those same companies are fighting today to deny that loot boxes and gambling are anything similar. *EA* is a perfect example of this, completely denying any accusation linked to their loot box system in any of their games. Evidence of this was highlighted in the previously discussed internal document leaked from *EA* where the company states that their end goal for their *FIFA* franchise was to bring as many users as possible to their *FUT* game mode which relies on loot boxes for progress. The game publishers who were ready to change their practices due to its similarity already have done so. This was done however more in fear of future regulations rather than for protecting the consumers. This is the case for Epic Games who shifted their microtransactions from loot boxes to subscriptions-based “Battle Pass”. In a market expected to reach over 20 bn by 2025, companies will not back down unless they have to. And the consumers are not anywhere close to regulating the supply themselves by reducing their purchases as can be seen from the increasing sales.

5.3.1 Banning loot boxes altogether

One solution would be to simply ban loot boxes in the country like Belgium did. In that case, the companies would have to remove all loot boxes that can be purchased with actual money or otherwise face a fine. While efficient, this drastic solution would not please everyone. As seen from the survey, some users actually enjoy loot boxes. A decision like this one would probably displease quite a number of people both in the gaming community and game publishers. And just like gambling, these functionalities, if used without excess, can actually be fun without negative consequences. This would imply for the government to officially interpret loot boxes as gambling and therefore part of the federal act on gambling.

5.3.2 Limitation on a case-by-case basis

Another possibility would be to limit access to loot boxes that respond to certain criteria. One main factor that could be considered is the ability to make monetary profits on the contents of these microtransactions. As in the Netherlands case, this would mean that

any game that has the ability to transfer items to other parties would be banned, but other types of loot boxes can remain. This would tie into the Swiss law's definition of gambling. Another way to filter would be to ban fake in-game currency that negatively influence the consumers during their purchasing decision. This solution would require monitoring and evaluating every loot box system available and represent a considerable amount of work.

5.3.3 Limit spending amounts

Since data suggests that the more a user spends on a loot box system, the more likely it is that the person will develop problem gambling, a possible solution would be to limit the amount that can be bought. By asking the companies to set a purchase limit, which is doable since it is already common practice for limited edition loot boxes, the amount spent per user would diminish and with it the ratio of problem gamblers due to these microtransactions.

As seen in figure 2, users who spend on average over 30\$ per month on loot boxes are more likely to rank higher on the Problem Gambling Severity Index (29). Taking into consideration that consumption is not necessarily consistent and tends to vary depending on time spent playing and the content available we can comfortably raise the limit to around 100 CHF per month. The idea here would not be to prevent spending, but rather to limit excessive spending. The users would be able to define what the limit is for them to better fit their income and budget. As shown in the research made by Michael Auer et al., gamblers consciously self-imposing a limit can have a positive impact on problematic gambling behaviours (47). In order to include the consumers in the decision, a range of acceptable amounts could be set by the players themselves. Suggestions could be 100 CHF for average income, 200 CHF for high-earning players and, in a case where minors are still allowed to purchase loot boxes, a lower limit of 50 CHF per month.

There is two ways to go about this solution. The first would be to set a limit of items that could be purchased based on the price of said items. For example, a minor would be allowed to purchase 10 loot boxes if those cost 5 CHF per unit and would simply see a counter in the in-game store of the amount remaining. Otherwise, the limit could be set as a flat monetary amount that users cannot overreach. To allow for possible changes in consumer's income, a way to change the limit could be implemented but in a manner as not to encourage spontaneous decisions. A way would be adding a functionality to change the limit, that would only trigger at the end of the month, after confirming a second

time it is what they want. This kind of delayed effect would give time to the consumers to reflect on the decision and be less influenced by cognitive distortions during their choice.

While the implementation would not be hard for video game companies, the definition of the different limits would require further research and data gathering before being put in place. It is also expected that companies will frown upon this decision, since it will lower the revenue from loot boxes. This would, on the other hand, encourage them to promote different types of microtransactions instead of these ones that are ethically questionable.

5.3.4 Limitation for minors at at-risk population

Actions could also be tailored to a specific demographic. To protect minors, a specific limitation could be put in place to avoid encouraging problem gambling behaviours at a young age. This would translate as a prohibition to purchase loot boxes for people under the age of 18. As already required for online casinos, loot box providers would need to verify, by checking a valid identity card, that the user is indeed 18 years old or older before allowing any purchase of a loot box. The user would also need to specify that they are not under a ban related to gambling.

5.3.5 Other measures

There are other, less impactful ways, to go about this as well. One of them would be to add a counter of money spent on the in-game stores to help the consumers realise their expenditures. In the in-depth interview, the user had trouble giving an estimation of his expenses. After finding out how high they were, he made a comment as how he did not realise, until he was asked to think about it, how much he had spent. He also commented that if he had known that number before, he probably would not have purchased so many loot boxes. The survey also highlighted a high amount (44 percent) of people that regret spending as much as they did on these microtransactions. A digital counter, showing to a user how much they spent would help them make a more rational and informed decision less affected by cognitive distortions and other influences.

Another path to help consumers make more informed decisions would be to force every game publishers to disclose the probabilities of the items within the boxes. This is already the case in most gachas since they are built for the Asian market where some countries like China already require it (43). This action would be in-line with providing consumers with more data to make an informed choice instead of relying on purposely insufficient

information. Of course, randomised verifications would need to be conducted to ensure the veracity of the probabilities.

Another simpler action would be to require a proper warning before a user can purchase loot boxes. A pop-up reminder including the risks, possible negative consequences and a specific warning for minors and at-risk people could already be a positive change.

5.4 Recommendations

When it comes to laws made to protect consumers, the population's opinions are not always the key factor in deciding whether or not something should be done. But it does not mean that it should not be taken into consideration at all. What the survey highlighted is that a complete ban of loot boxes would not please consumers, especially those who already interact with these digital items. One of the main factors behind it is that consumers seem to hate being locked out of functionalities that other countries have. A sensible limitation on the other hand seemed to be more popular. More importantly, the general consensus was that minors and at-risk population need to be protected. With this in mind, the author's recommendations focus on three points: Helping the consumers make a more informed decision, protecting at-risk population, and raising awareness. The recommendations are based on three assumptions. The first is that, currently, most loot boxes cannot be considered as traditional gambling and as such are not subject to gambling laws. Then, loot boxes with a cash-out feature should be considered as gambling as they fit the current interpretation of the legislation. Finally, regardless of their specifications, they are linked to problem gambling and as such the population should be warned and protected. To do so, a combination of some of the previously mentioned possible actions is necessary.

First, loot boxes that have a cash out feature should be considered as a form of gambling since the aspect of possible pecuniary gain exists. As such, game publishers do not have the proper authorisations to conduct these activities and will have to remove these specific microtransactions from their games or face legal penalties. To address this, a review of the existing loot boxes would need to be conducted to determine which can lead to monetary gains. For example, despite not being able to directly sell the items to other people, the game CS:GO permits players to trade to third party websites that in turn allow it. This constitutes hope for pecuniary gain therefore fitting the legal interpretation of gambling.

Secondly, regardless of whether or not these microtransactions are linked to gambling law, loot boxes should be prohibited to minors. This action would protect the most vulnerable age group from possible problem gambling related negative effects. The law enforcement would need to ensure that game publishers have a system in place that verifies the age of any user that want to purchase loot boxes based on a valid identification document. In the case that parents share their own passport or id with their children, it will at least raise their awareness on the matter in older age groups. The involved companies will also need to make sure that the potential client does not have incurring gambling bans like online casinos do.

Finally, game publishers should change the way loot boxes are presented in their shops. This should be done with the objective to help consumers make a more informed decision when purchasing these digital items and raise awareness to the potential issues that it can cause. To that goal, the author recommends imposing on game publishers to add a visible, easy to access, digital counter of the total amount spent on loot boxes and to disclose the probabilities linked to the odds of obtaining the different items in an honest and easy to understand way. A warning that informs users of the possible negative effects of loot boxes should also be added. This warning should include links to find more information on the matter and ensure that the users read the content by requiring a validation from the customer before continuing.

This set of actions will help the consumers make a more educated decision and raise awareness on the subject by providing them relevant information, giving them a global view of their spending, and shedding some light on the actual probabilities of them receiving the items they want. It will also protect the population that is most vulnerable to problem gambling. Going forward, the situation should be monitored and studied to see if the actions taken are enough, or additional actions such as adding a spending limit or banning loot boxes altogether are necessary.

6. Conclusion

Loot boxes have been for a long time a grey area when it comes to gambling. With the market failing to regulate itself, actions need to be undertaken to protect and inform consumers. Evidence points to them being a possibly dangerous activity hidden within a gaming environment that is supposed to be safe. The increased amount of protestation and debates around these functionalities due to its significant similarities with gambling were not unfounded. The same influences that push gamblers to risk more are found in these loot box systems. But with the increasing market size and possible revenue generated by them, companies will not act unless they have to. While some companies such as *Electronic Arts* dispute the similarities based on the outcome not being monetary, research shows otherwise. Studies proved that loot boxes have a significant relationship with problem gambling regardless of previous gambling habits or cash-out features. The subject is made even more problematic when we factor in the fact that minors and at-risk people have free access to them with no warning whatsoever. The low awareness of the population on the issue further amplifies the need for a change. With the sales of these digital items growing exponentially, now is the right time to implement regulations to protect vulnerable population groups, raise awareness and help consumers make an informed decision. Some countries already acted on the matter and Switzerland needs to do the same.

There are different ways to go about this issue from limiting spending to banning them altogether. When asked, consumers themselves agree that things should change. While all of them do not agree with a complete ban, most think that limits must be set, especially for younger audiences. As such, the author recommends that Switzerland includes loot boxes that allow cash-out features as subject to existing gambling regulations, to prohibit access to loot boxes to minors and at-risk population and to constrain companies to change the way loot boxes are sold. Spent amounts, probabilities and relevant information need to be provided for consumers to make an informed decision. Companies play with cognitive distortions and other methods to drive its customers towards loot boxes and push them to spend more. While it is much easier to ignore the problem and hope that the market regulates itself, consumers need help to look past the tricks employed by loot box providers to motivate purchase. The population needs and deserves to be able to enjoy their hobbies in an ethical and safe environment devoid of predatory strategies that influence their decisions. It is now time to stop debating on the etymology of gambling law and to act for the well-being of the people.

This paper is however based on some assumptions that, if altered, could change the conclusions reached. In order to provide suggestions based on the current situation, this research considered current gambling law in Switzerland as an unchangeable set of criteria. As such, the resulting recommendations rely on the single sentence defining money games in the “Loi fédérale sur les jeux d’argent (LJAr)”. If this definition could be altered to remove the necessary money outcome to adapt for new services that can lead to problem gambling, all paid loot boxes would fall under the gambling law. Since game publishers do not have the proper permit to provide gambling services, all paid loot boxes would need to be removed in Switzerland. In that case, further research would need to be conducted to find out if it is desirable to create a specific permit for this service that game publishers could apply for, how to create it, what conditions should be included in it or if paid loot boxes should just remain prohibited in the country. Adding an 8th category of gambling in the law is another possible course of action that could lead to the same result. This would mean adding the definition of loot boxes as a separate bullet point after Casino games in the definition of gambling and including the necessary provisions in the LJAr.

Another gap in this research concerns the primary data collected. While the survey provides valuable insights that help framing the problem for Switzerland, it does not answer if loot boxes are gambling or not. Asking the population directly that question is not enough since when it comes to addiction related activities consumer opinion should not be factored in. Testing the Problem Gambling Severity Index in Switzerland could be a first step in answering this question. Finally, if the changes in the regulation were to be passed through vote, the survey used in this paper is not enough to properly estimate the reaction of the population. A survey with a broader audience, a stricter sampling method and a more precise definition of the changes would need to be conducted to have a more accurate representation of the population’s intentions. This would however necessitate the actions to be set in stone and agreed upon by the Swiss Federal Gaming Board before creating the survey.

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Appendix 1: Survey data

The survey data is available at the below link on an excel file.

The file is publicly accessible. If for any reason there were to be issues with accessing it, please send an email to david.daconceicaosilva@gmail.com

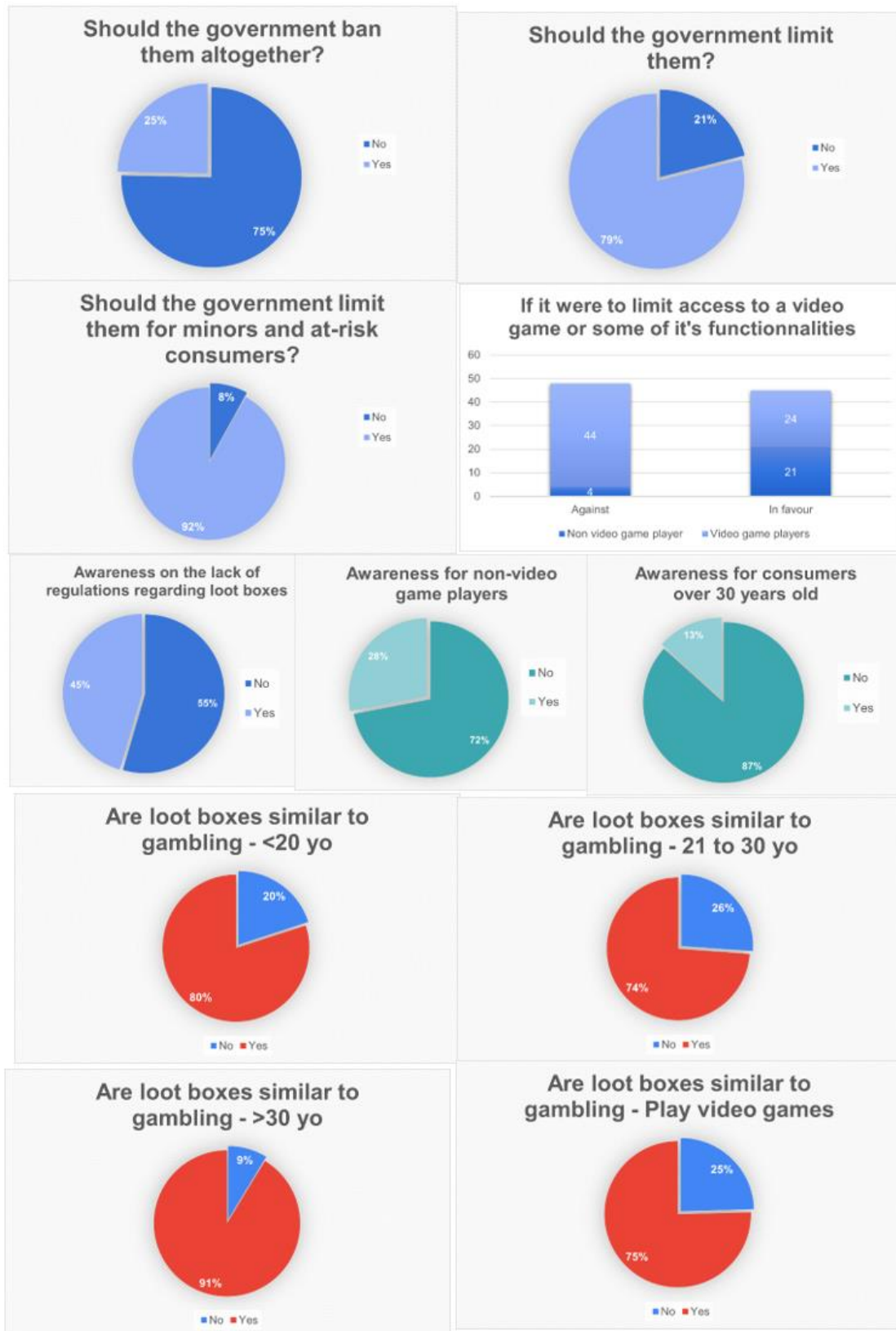
Excel file: <https://1drv.ms/x/s!AtmoAFhYFbDIqma2jHXzAwObBy4O?e=242ZOo>

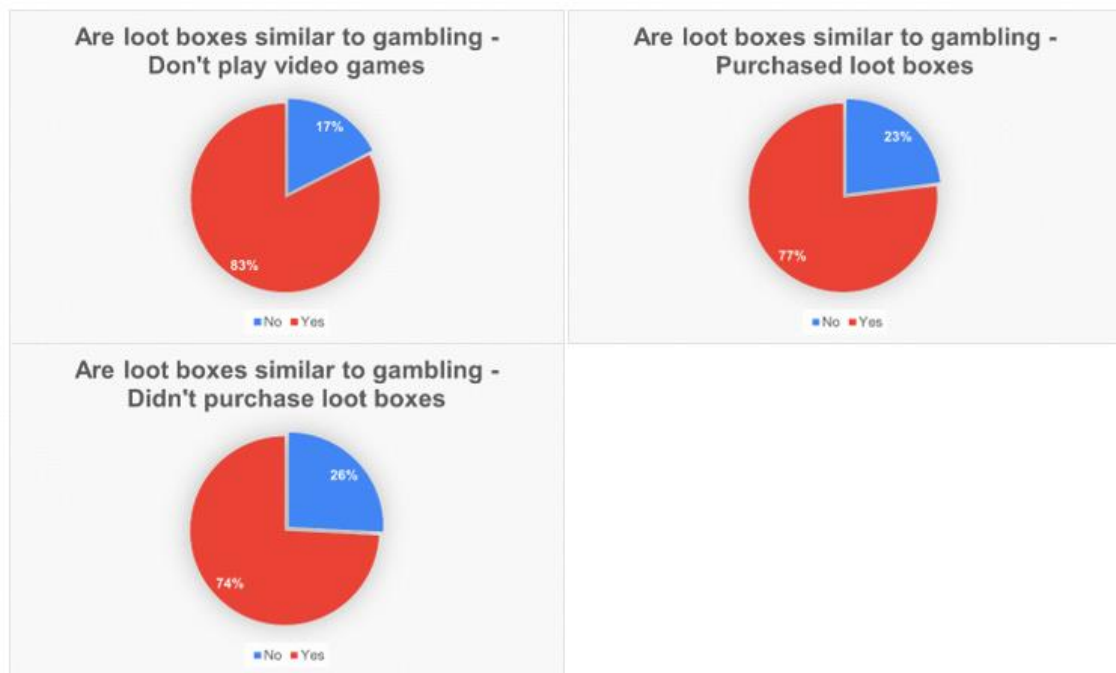
Questions:

1. Do you play video games on any device? (Console, PC, mobile, etc...)
2. In the past, did you pay for additional content in a video game that was chance based and you did not know what actual content you would get? (As in loot boxes, gachas or FUT Packs)
3. Why did you purchase this content?
4. How many times did you purchase it?
5. How much do you think you spent on chance-based items so far? (Estimation)
6. In which game(s) was it? (Mention the game where you spent the most)
7. After not getting the specific item/content you wanted, did you ever get the feeling that since you already invested that much, you should keep going?
8. Did you ever feel like you lost control of your spending on these chance mechanisms?
9. In retrospective, do you think you spent more than you should have?
10. Do you think these chance mechanisms in video games are similar to gambling? (Please read the description above)
11. Do you think these functionalities should be regulated by the state?
12. Would you be for or against the prohibition of these functionalities?
13. If they are not prohibited, do you think they should at least be limited?
14. Would you be for or against the regulation of these functionalities for younger players or at-risk people?
15. If laws were to prevent you access to parts of or entire video games, would you be against it?
16. Did you know no regulations are in place at the moment in Switzerland (and most countries) to protect consumers against the possible risks related to this functionality?
17. You are:
18. Your age:
19. Professional situation
20. Country
21. What is your annual revenue?

Appendix 2: Additional graphs extracted from the survey







Appendix 3: In-depth Interview Summary

Interviewee profile:

Bertrand (alias for anonymity) is a 25 year old Swiss resident. He works in the architectural industry earning around 50'000 CHF annually. Bertrand has been playing video games since he was 10. He started on game consoles and later shifted to PC and mobile gaming. The interviewee plays video games around 10 to 15 hours per week depending on his workload. He has a lot of experience with loot boxes. In regard to gambling, he nearly never goes to casino or gambles online. He does so occasionally to go out with friends, but he does not really care for it. Bertrand answered the Problem Gambling Severity Index and reached a score of 6. This score assesses him as a moderate-risk gambler which denotes a moderate level of problems that could lead to negative consequences such as overspending, losing track of time, and feeling guilty about their gambling.

Did you ever purchase loot boxes?

Yes, I purchased quite a lot of them. I estimate my spending at around 700 to 800 CHF. I purchased them mainly on Counter-Strike: Global Offensive on PC, and especially in the mobile gacha game Brave Frontier.

What motivated your purchase of loot boxes?

There are several different reasons. One was that it was the fun of it. The other was for the sake of collection (having as many items/characters as possible).

Why do you consider it fun?

I saw it as an investment to have more fun in the game. In Brave Frontier it helped me progress faster, be more powerful. I enjoyed seeing my level increase with better items/characters. When it was for cosmetic purposes, it's more that I enjoy the visuals of it. I just find it cool.

What about the fact that you did not know what you would get? Did you find it fun as well?

Well yes and no. That feeling when you get a very rare item despite the odds is incredible and I love it. But most of the time it's just frustration because you don't have the item you want.

Did you have any techniques to have more luck?

Yeah, I never open just a few boxes at once. I wait until I can open a lot at a time and I feel like it brings better results.

**Interviewer notes: Clear example of predictive control*

If you had the chance to change your purchases, would you have done the same?

Well I had fun with it so probably yes. But I do admit looking back I think I overspent.

Did you ever have the feeling like you lost control of your expenses?

Definitely. In some cases I wanted a specific character. When it wouldn't drop (aka the loot box wouldn't give the character but other items instead) I would lose control and continue spending until I got it, spending much more than I planned to.

What if there was a digital counter in-game of how much you spent on loot boxes? Would it influence you in any way?

Yeah I think if I was reminded constantly of how much money I put into it, it would feel more real and I would probably feel bad. So yeah I would spend less.

Do you think the amount you spent without getting what you wanted, pushed you to spend more or not?

Yes. The more I spent the less I wanted to stop otherwise it would be for nothing. Some games have increased probabilities the more you lose which is nice. But most don't.

At any point, did you or do you feel addicted to loot boxes?

No, not really. I use them because I need to but if they weren't there I wouldn't care.

Any other comment about why you would purchase them?

Well in the case of Brave Frontier, one thing that pushed me to purchase is that when you reach a high-level, unless you have the right characters and items that you get from loot boxes, you can't progress anymore. You're forced to keep purchasing if you want to reach the very top of the game. Since I wanted to keep playing, and couldn't stop playing honestly, I kept purchasing.

Do you think it was impossible for you to progress without investing money?

Completely. You can get some loot boxes from playing the game but it takes hours and results in almost nothing. It is impossible.

What's your feeling in general regarding loot boxes? Do you like them?

Honestly no. It's not like I hate them, I get why they are popular. But I'd rather not have to purchase them.

Would you be in favour or against a regulation of these loot boxes?

I would be in favour. I think companies take advantage of players. I'd rather they didn't exist at all. You're almost forced to use them.

What if Switzerland were to ban them, and because of it you would not have access to certain games or functionalities?

In that case no. I don't want to be cut out from content it would be very frustrating.

**Interviewer notes: Wants them banned and finding them unethical, but if it impeaches his access to certain games doesn't want a ban.*

The interviewee approved this summary of the interview and the way his comments were translated.