VIDEO GAME MONETIZATION: DEVELOPER AND PLAYER VIEWS ON SUSTAINABLE AND ETHICAL STRATEGIES

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Tero Saarinen

Examiners: Associate Professor, Dr. Jussi Kasurinen

University Lecturer, Dr. Erno Vanhala

ABSTRACT

Lappeenranta–Lahti University of Technology LUT

LUT School of Engineering Sciences

Software Engineering

Tero Saarinen

Video Game Monetization: Developer and Player Views on Sustainable and Ethical Strategies

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63 pages, 3 figures, 13 tables and 1 appendices

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Keywords: video game monetization, loot boxes, gambling-like mechanics, consumer protection, virtual currencies, ethics, spending behaviour.

This study examines video game monetization strategies, with focus on sustainable alternatives to loot boxes and other controversial monetization practices, during growing ethical and regulatory scrutiny. Drawing on interviews with four game developers and surveys of industry professionals and players, it identifies factors influencing player spending behaviour.

Findings indicate that many players find some monetization models unethical and exploitative, leading to distrust and reduced engagement. Simpler and more transparent approaches, such as single-purchase games, cosmetic add-ons and downloadable content, are seen as fairer and more sustainable.

While developers often prioritize player trust, monetization strategies are frequently driven by profitability rather than ethical considerations. Potential EU regulation could increase transparency and accountability in monetization practices.

The study highlights the importance of balancing revenue generation with fairness and long-term player relationships. Ethical and predictable models are shown to enhance player satisfaction and may support the long-term viability of the video game industry.

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Videopelien ansaintastrategiat: Kehittäjien ja pelaajien näkemyksiä kestävistä ja eettisistä strategioista

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Avainsanat: videopelien ansainta, loot boxit, uhkapelimekaniikat, kuluttajansuoja, virtuaalivaluutat, etiikka, kulutuskäyttäytyminen.

Tässä tutkimuksessa tarkastellaan videopelien ansaintastrategioita, keskittyen kestäviin vaihtoehtoihin kiistanalaisille ansaintamalleille, kasvavan eettisen ja sääntelyyn liittyvän tarkastelun lisääntyessä. Haastattelemalla neljää pelikehittäjää, sekä analysoimalla alan ammattilaisille ja pelaajille suunnattujen kyselyiden tuloksia, tunnistetaan tekijät, jotka vaikuttavat pelaajien kulutuskäyttäytymiseen.

Tutkimuksen havainnot osoittavat, että monet pelaajat pitävät joitakin pelien ansaintamalleja epäeettisinä ja hyväksikäyttävinä, mikä voi johtaa pelaajine epäluottamukseen pelintekijöitä kohtaan, sekä vähentää pelaajien sitoutumista kyseisiin peleihin. Yksinkertaisemmat ja läpinäkyvämmät ansaintamallit, kuten kertamaksulliset pelit sekä kosmeettisia ladattavia lisäsisältöjä, pidetään oikeudenmukaisempana ja kestävämpänä tapana rahoittaa peli. Vaikka pelikehittäjät usein pitävät pelaajien luottamusta tärkeänä, ansaintamalleja ohjaa usein kannattavuus eettisyyden sijaan. EU:n mahdollinen sääntely voi lisätä pelien rahankäytön läpinäkyvyyttä ja vastuullisuutta.

Tutkimus korostaa tarvetta tasapainottaa tulonhankinta reiluuden ja pitkäaikaisten pelaajasuhteiden kanssa. Eettiset ja ennakoitavat ansaintamallit lisäävät pelaajien tyytyväisyyttä ja voivat tukea peliteollisuuden elinvoimaisuutta pitkällä tähtäimellä.

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1 Introduction

Video game monetization is a complex topic that includes a variety of strategies and practices. Over time, developers have integrated many features into games to generate revenue streams, some of them more controversial than others. Recent discussions about these monetization methods have focused on issues of transparency, fairness, and potential economic and psychological exploitation of consumers. Stakeholders, including players, developers, industry investors, and regulators, each have their own views on what methods are sustainable both ethically and commercially.

Stakeholders, particularly players and policymakers, have called for greater transparency and regulatory oversight in areas such as the use of virtual currencies, in-game purchases and rewards that resemble gambling. As Kim and Kirci (2023) stated, "The EU Internal Market and Consumer Protection Committee report suggested that loot boxes should be tackled through existing consumer protection laws that focus on addressing 'problematic game designs'.". The report stated that loot boxes qualify as gambling and are illegal in some member states, while in others, they have not been classified as gambling, yet. Many member states are now looking to introduce legislation to restrict loot boxes (Kim and Kirci, 2023). It is increasingly important to explore alternatives to 'loot box' -mechanics and to examine the factors that influence players' willingness to spend on games.

Despite growing criticism and the risk of stricter regulation, many companies continue to use loot boxes in ways that appear to target players' psychological triggers, and virtual currencies in a way where the real value is masked (King and Delfabbro, 2019; Kim and Kirci, 2023; BEUC, 2024). Questions remain about how these approaches affect consumer trust, player satisfaction, and the long-term viability of the industry. It is unclear whether investors prioritize ethically sound and sustainable models or whether they are primarily interested in maximizing short-term returns.

This study explores the rationale behind current monetization models and examines how these models intersect with player consumption behaviour and investor expectations. The goal of this study is to find sustainable monetization models that are long-term profitable, ethically and socially sound, while adapting to consumer needs and potential regulatory developments. In this context, sustainability refers to long-term viability from a business, ethical and regulatory perspective, and ensuring that monetization models foster sustainable player relationships and comply with evolving consumer protection laws and standards.

To support this objective, the research focuses on three key questions:

1. What are the current alternatives to loot boxes in video games monetization, and how do they differ from loot boxes?
2. What are the main factors that influence player spending behavior in video games?
3. What kind of sustainable monetization strategies are investors looking for in the video game industry?

1.1 Thesis structure

This thesis is divided into 7 chapters:

Chapter 1 introduces the research topic, outlines the structure of the thesis, and includes a declaration of AI use.

Chapter 2 provides background information, explaining various game monetization models, strategies, and mechanics. It also discusses ethical considerations and potential regulatory developments in the industry.

Chapter 3 describes the research methods used in this study, detailing the design and implementation of both interviews and surveys.

Chapter 4 presents the results of the research. It covers findings from interviews with industry professionals and surveys conducted with both game developers and gamers. The chapter compares perspectives between developers and players, and explores topics such as monetization practices, ethical concerns, and future trends.

Chapter 5 discusses the implications of the findings, relating them to the research questions and existing literature.

Chapter 6 addresses the limitations of the study, considering factors that may have influenced the results.

Chapter 7 concludes the thesis by summarizing the key findings and suggesting directions for future research.

1.2 Declaration of AI Use

Artificial intelligence tools, OpenAI's ChatGPT-4-turbo, GPT-4o and OpenAI o1 -models, were used to assist with proofreading, language refinement, and in the analysis of questionnaire and interview results. AI tools were not used to generate content for this study.

2 Background

2.1 Game monetization models, strategies and mechanics explained

There are several core monetization models available for digital products such as video games. A product can be sold as a one-time purchase, offered for free, or there can be a subscription where the user pays a recurring fee. It is common for games to have multiple monetization strategies, regardless of whether the core model is free-to-play or requires an upfront-payment. A common way to generate extra revenue is to implement supplementary monetization models such as downloadable content's (DLC), expansion packs, in-app purchases, subscriptions, advertisements, or battle passes.

2.1.1 Digital product monetization

The video game industry operates under unique economic conditions where digital products can be replicated endlessly with virtually no additional cost, creating fundamental monetization opportunities compared to physical products. Game developers can also implement price discrimination strategies by creating different versions or packages of the same core product, allowing them to target distinct player segments at various price points. The presence of strong network effects in gaming often leads to winner-takes-all market dynamics, explaining the tendency toward platform dominance and industry consolidation observed in major game genres and marketplaces (Buxmann, Diefenbach and Hess, 2013; Skilton, 2015). Skilton (2015, p. 7) defines the monetization as "the ability to generate financial wealth through strategies and methods to convert skills, relationships, intelligence, assets, products, and services into monetary value.".

2.1.2 Upfront payment

The advance payment, outright purchase, or Pay-to-Play (P2P) -model is comparable to the traditional retail business model. It is the easiest model to implement and support because it does not require continuous updates or services to maintain, but it may limit revenue potential by not offering additional monetization opportunities to existing customers (Macchiarella, 2012; Zendle, Meyer and Ballou, 2020). One-time purchase is also easy and transparent for the players to understand. They get the product with one single upfront payment for years to enjoy. Outright purchase model has additional monetization models through DLC or expansion packs, that are offered for players who already own the base game and are interested in extending its lifespan or accessing new features. DLC and expansion packs also have a one-time purchase payment model. These add-ons may include, for example, new aircraft, custom liveries, airports, mission packs in the case of flight simulators. Such extra content allows developers to keep monetizing with products that are well liked and have a strong player base (Macchiarella, 2012; Lee, Jett and Perti, 2015; Zendle, Meyer and Ballou, 2020). One classic monetization model is to offer a demo or a limited version of the full game, where certain or most features are locked. Players can later unlock the full content by paying an upgrade fee or purchasing the full game. This model provides a test before buy and it can make a low-barrier entry point for players, this could be a good solution especially for new and unknown games to gain traction in the market (Hui, Yoo and Tam, 2008; Macchiarella, 2012).

2.1.3 Subscription-based model

Subscription-based model provides access to games in exchange for recurring fee, which is typically charged on a monthly or yearly basis (Macchiarella, 2012; Hamari, Hanner and Koivisto, 2020). Subscription model can be combined with one-time purchase. For example, if a game has both offline and online modes, the offline mode could be story-driven single-player experience, and the online mode could be a multiplayer game with recurring subscription. Subscription models are also used for game libraries, especially for game consoles. Services such as Xbox Game Pass and PlayStation Plus offer subscribers' access to hundreds of games for a monthly fee (Warren, 2022).

2.1.4 Free-to-play

Free-to-play (F2P) model is currently the most common monetization model in mobile games. In this model, players can download and play the game without paying money upfront to the developers or for the publishers (Vanhala, Hyrynsalmi and Kasurinen, 2021). The game may include advertisement that players have to watch, which generate revenue for the developers, or there can be option for players to, for example, purchase virtual items, premium features, within the game through in-app purchases (IAPs) (Vanhala, Hyrynsalmi and Kasurinen, 2021; Syahrivar *et al.*, 2022).

In-app purchases and microtransactions refer to transactions within the digital product, in this case, a video game. In-app purchases can basically be any form of payment to unlock new features, content, or items within the game. Microtransactions typically refer to specific kind, smaller-scale and low-cost purchases. The range of items that can be purchased within the game is wide, for example these may include cosmetic items for a player's character, temporary boost for game, quality-of-life enhancement, virtual currency that have internal value within the game's internal economy. Games with an up-front purchase model can also have IAPs or microtransactions (King and Delfabbro, 2019; Hamari, Hanner and Koivisto, 2020; Neely, 2021).

Ads were the first revenue generating monetization model for F2P model (Hsiao and Chen, 2016; Vanhala, Hyrynsalmi and Kasurinen, 2021). In this model the player is required to watch ads in-between the gameplay to be able to continue the game. Advertisement service providers deliver the ads for the players by auctioning the impression that the game has. Ads are tracked and analysed for view duration, whether the ad was completed, if the ads were clicked by viewer and if the ad provided a sale for the advertiser. These metrics determine how developers or publishers are compensated (Unity, no date). The revenue generated per ad impression is typically quite low. The game has to have a large number of players for the developers to earn meaningful revenue. Advertising revenue is dependable by several factors, including the platform, region, player demographics, and ad placement within the game. Most ad networks do not disclose detailed revenue calculation methods. As a general estimate, developers may earn around $1 per 1,000 ad views (*Google AdMob Earnings Calculator*, 2022). Based on my own experience, Unity Ads does not pay out revenue amounts below $100. Rewarded ads differ from standard ads in the way that players receive a reward, a gift, after voluntarily completing the view, clicking the ad or even installing the advertised game. According to Unity documentation "Encouraging players to voluntarily watch an ad requires a compelling incentive. Successful implementations tend to offer in-game currency, power-ups, additional lives, or consumable items such as potions that help players recover and flourish in the game." (Unity, no date).

2.1.5 General monetization models for any type of core monetization models

Popular way to add value for players and revenue for developers is by offering extra content for the game. This additional content can be basically any kind of in-game item or benefit. Cosmetic items could include skins, avatars, items with only visual benefits, meaning that cosmetics allow players to personalize existing in-game experience without affecting gameplay balance (King and Delfabbro, 2019; Hamari, Hanner and Koivisto, 2020; Neely, 2021). Other types of content could include items that support progression in the game "boosts, quality-of-life enhancement, or Pay-for-progress", or items that provide competitive advantage against other players (Zendle, Meyer and Ballou, 2020; Neely, 2021). These kinds of boosts are called Pay-to-Win (P2W) mechanisms (Valentine, 2019; Lelonek-Kuleta, Bartczuk and Wiechetek, 2021). Games usually have internal virtual currencies that are used to purchase these items. Currencies are divided into two types: Soft currencies which are earned through gameplay, and hard or premium currencies, which are purchased with real money (Hsiao and Chen, 2016; King and Delfabbro, 2019; Zendle, Meyer and Ballou, 2020; BEUC, 2024). Games can have multiple currencies that have different purposes in the game and also different values in-game and in real life currency (King and Delfabbro, 2019; Petrovskaya and Zendle, 2022). Hard currencies are often sold in bundles, where players can get exponentially more in-game currency if they choose to use more real-word currency. Sometimes bundles are intentionally designed to have inconvenient size to make players spend more to acquire the correct amount (Petrovskaya and Zendle, 2022; BEUC, 2024).

Blockchain technology has created a new way to monetize gameplay for both game developers and players which is called Play-to-earn (P2E) (Duguleană, Tănăsescu and Duguleană, 2024). P2E allows players to have complete ownership of their in-game assets and offers a transparent and secure way for transactions (Carvalho, 2021; Duguleană, Tănăsescu and Duguleană, 2024). In P2E model games reward players with in-game currencies, cosmetics, boosts, when the players for example, progress in the game. Even if the players are rewarded by the game, the game developers rely on the fact that players still want and need to make in-game purchases (Duguleană, Tănăsescu and Duguleană, 2024).

Battle pass, event pass, is described as an “opt-in paid progression system” for games. Battle passes offer players the opportunity to unlock in-game content by completing challenges in a defined time-line called season, which normally lasts from a month to several months. Battle passes often provide special content for players, or content that they normally would need to purchase separately (Davenport, 2018; Joseph, 2021). Battle passes often signal players when the game will be updated with new content and events (Joseph, 2021).

2.1.6 Random reward systems

Some in-game purchase mechanics use randomness, so players do not know exactly what they’re buying. The item they receive is determined by chance, much like a slot machine. Random rewards are often called loot boxes. A loot box refers to an in-game transaction system where players can repeatedly pay real money to receive a randomly chosen set of virtual items (King and Delfabbro, 2019). The "Gacha" system is a game mechanic similar to loot boxes, where players spend in-game virtual currency to draw a random item from a pool. Loot box and Gacha -systems difference comes from geographical origins of the systems: Gacha is specifically associated with Japanese games and loot boxes have origins in Western games. Gacha systems are gaining popularity in Western and other Asian origin games. The name ‘Gacha’ comes from Japanese vending machines called ‘Gachapon’ or ‘Gashapon’ that have capsuled toys for rewards (Wu and Singh, 2023; Lakić, Bernik and Čep, 2023; Xiao, Fraser and Newall, 2022; Neely, 2021). Loot boxes can have internal systems that increase the probabilities for players to obtain the rare-item they are looking for from a loot box. This mechanism is called ‘pity timer’, it is designed to guarantee the reward after a certain number of purchases, at which point the odds reset (Xiao, Fraser and Newall, 2022; Gan, 2023).

2.2 Ethics and possible regulatory development

Research shows that video games possess an experiential value that players evaluate both consciously and unconsciously before making purchase decisions, which has significant implications for how monetization mechanics are perceived (Buxmann, Diefenbach and Hess, 2013). When evaluating in-game purchases, players weigh both utilitarian considerations such as functionality and cost-benefit against hedonic factors such as visual appeal and personal satisfaction, creating a complex decision framework that game designers can strategically influence. Unlike business software procurement, video game monetization strategies must account for the substantial influence of personal factors including emotions, aesthetic preferences, and lifestyle considerations that drive consumer spending beyond purely rational cost calculations (Buxmann, Diefenbach and Hess, 2013).

According to Petrovskaya and Zendle (2022), video games employ a variety of problematic monetization strategies, including “game dynamics designed to drive spending, product not meeting expectations, monetization of basic quality of life, predatory advertising, in-game currency, pay to win, and general presence of microtransactions” (Petrovskaya and Zendle, 2022). BEUC, the European Consumer Organisation states "harmful commercial practices are bursting into the sector: from loot boxes to deceptive designs, and from aggressive marketing to direct exhortation of children for in-game spending. One type of in-game purchase that is especially problematic to consumers, is the so-called in-game or in-app premium currency. European consumer law remains fully applicable to the gaming sector and to in-game currencies". Freemium model has created a financial incentive for game developers to encourage players to spend money in games. With the immersive environment and addictive nature of video games, some monetization designs try to maximize the player spending making players, especially children and teenagers, forget that they use real money when they use virtual currencies (Petrovskaya and Zendle, 2022; BEUC, 2024). There are also concerns about how players who are in a vulnerable position can overspend in the games (King and Delfabbro, 2019; Petrovskaya and Zendle, 2022; BEUC, 2024). Predatory monetization refers to in-game purchase strategy that masks the players actual spending until players are psychologically, emotionally or financially committed or invested in the game. According to Neely (2021), “players cannot make informed judgments about whether to play the game, which can easily lead to exploiting players by trading on the sunk cost fallacy. Once a player has started spending real money on a game, there is a large temptation to continue; this is particularly problematic for random methods of purchasing rewards, such as loot boxes, but is not unique to them”. Predatory techniques can use manipulative ways for drawing in-game rewards and it can even have optimized microtransactions that are based on tailored user behavioral data (King and Delfabbro, 2019; Neely, 2021; Petrovskaya and Zendle, 2022). DeAndrade (2023), found in their research that 85% of the games that were targeted for children from 4 to 8 years old, featured in-game currency, and 81% had random reward style traces in the gameplay. It was also revealed that the rewards were driven by money and they normalized gambling like mechanics. They also mentioned "the prevalence of gambling-like mechanisms is intense. Advertising the games as free may work as a hidden strategy to convince guardians to avoid immediate spending on a product which can result in harm later in the child's life." (De Andrade, 2023).

BEUC is proposing the European Commission to examine the possibility of banning the use of in-game virtual currencies "The European Commission should consider the opportunity to ban the use of premium in-game and in-app currencies by game and app developers and publishers. All in-game and in-app purchases should always be denominated in real-world currency" (BEUC, 2024, p. 13). They state that virtual currencies are artificially created to mask the use of real money with no real benefit for consumers, and the in-game purchases could very well be made with real money. The digital products should have better consumer protection "by design", and "game and app developers and platforms should have stricter obligations to protect consumers" (BEUC, 2024, p. 29). They state that if banning is not possible, stricter transparency and regulatory requirements should be introduced. The EU law states that the real price of virtual items should be presented in a clear and transparent manner. Consumers should have the same rights when purchasing virtual items as they do when purchasing real-life items, there should be refund policies for unwanted purchases, and there should be a way for consumers to avoid "algorithmically driven decision-making that aims to influence their economic behaviour" (BEUC, 2024, p. 26). BEUC proposes that the equivalence of the real money should be right next to the price that is shown in virtual-currency in the same size and format, and the virtual item prices should be shown similarly when bought with virtual currencies. BEUC recommends that "all in-game and in-app payment mechanisms should be deactivated by default." (BEUC, 2024, p. 28).

3 Research Methods

There were two data collection methods to gather data for this research. First method was to one-to-one interview professional game developers from different game companies. To support or challenge the interview findings and to slightly broaden the data to identify possible trends and common views, a survey was conducted among game professionals. Additionally, an alternative survey was conducted to gather perspectives from the people who consume the game products, the gamers, to confirm whether the thoughts of game developers are in line with gamers, and whether current monetization models are ethically acceptable in the opinion of players.

3.1 Interviews

The interviews were conducted with Microsoft Teams meeting. The meetings were recorded and transcribed to have accurate notes from the discussions. All data was anonymised to protect any privileged or confidential information that may have been revealed. The transcripts were then summarized, and irrelevant parts were removed using a ChatGPT 4o – based AI tool, to make the extracted data more manageable and comparable to other data sets.

3.2 Surveys

Both surveys were conducted online using Webropol Survey & Reporting tool between 28th January and 1st of April 2025. The links for the surveys were shared on LinkedIn, Discord servers, by email directly to personal connections to various gaming companies, and to gaming students from examiners personal connections. Both surveys explicitly requested participant consent for the collection and use of data. This consent form clarified that the participants were legal adults, understood the purpose of the research, and were participating voluntarily. All respondents who proceeded with the survey confirmed their agreement, because there was no option not to. Neither survey gathered any personal data from the respondents.

Both surveys were designed to collect both qualitative and quantitative data on people’s experiences with game monetization models, who are involved with games in a way or another. The survey for gamers concerned more about the respondent's behaviour towards in-game purchases and their ethical views and concerns. The survey for game developers on the other hand concerned the game developers’ view on how they feel about current monetization models and if there are any alternatives available. By combining closed-ended questions like multiple choice, select all that apply, and Likert scales, with open-ended free-text responses, the survey provided a picture of participants’ attitudes.

The questions for gamers included gaming frequency, game genres, spending habits, ethical scepticism regarding gambling-like mechanics, and open-ended suggestions, allowing a holistic view of how players experience and react to different game monetization models. The questions for game developers covered current monetization practices, challenges, and ethical considerations about monetization models. The survey also sought to understand whether developers believe alternative approaches could align with both player expectations and business viability, especially in the face of increasing regulatory scrutiny.

4 Results

This chapter presents the data captured from the interviews with game developers and the surveys conducted with both industry professionals and gamers. The results aim to provide a comprehensive understanding of how monetization models are perceived, their ethical aspects, and the extent to which they meet player expectations and industry goals.

The three different data sets were compared against each other. First comparison was the data from the developer interviews with the responses from the game developers survey. Next this data was compared between the data from the survey to gamers.

4.1 Interviews

Four one-on-one interviews were conducted with 4 seasoned game developers from Finland between October 2024 and January 2025.

4.1.1 Background and company profiles

All interviewees have extensive careers in gaming the sector. Person A from Company 1 has 6.5 years of experience as a game designer, currently working as a senior game designer. Person B from Company 2 has over 10 years of experience working in game industry, currently working as a chief technology officer and co-founder. Person C from Company 3 is currently working as a product manager and co-founder with over 10 years of experience working in basically all roles in the gaming sector. Person D from Company 4 is currently working as a producer and has over 10 years of experience working in the game sector as a producer and also as an artist.

The companies that the interviewed persons currently work with were all different sizes in matter of employees, ownership, revenue and game genres as seen on the Table 1. The difference between the companies was the fact that 3 of the 4 make games mainly for mobile platforms; Apple’s IOS and Google’s Android systems, and one company, Company 2, will pursue cross-platform development and plans to have console-first development. The sizes of the companies vary from Company 2's 3 employees to Company 4's 250 employees. Company 1 had 80-100 employees and Company 3 had 11 employees at the time of the interview.

Table 1. Company information

	Founded	Employees	Ownership	Target market	Paltform
Company 1	2007	80-100	Publicly owned, Public Limited Company	US / males	Mobile
Company 2	2024	3	Independent Limited company, venture capital-funded	US / families & friends	Console first
Company 3	2017	11	Independent Limited company, venture capital-funded	US / males	Mobile
Company 4	2014	250	Independent Limited company, venture capital-funded	US / females	Mobile

All of the companies have had external funding or venture capital. Typical reasons for funding include salary expenses, enabling growth and supporting marketing. None of the interviewees reported that external funding has affected decision making on how to monetize the products, but also all interviewees acknowledged that investors expect revenues.

4.1.2 Target markets and business strategies

All companies that are developing games mainly for mobile devices have a target demographic in the U.S. market because of higher average revenue per user. User acquisition costs are higher in other territories. Company 1 & 3 are mainly focusing male gamers, Company 4 is pursuing the female market and Company 2 is targeting families and friends with cross-generational aspects.

4.1.3 Monetization models

Companies 1, 3 and 4 have a free-to-play approach with a multi-currency system as the main monetization model. All of these companies also have in-app purchases for example bundles or cosmetics, and the companies that make mobile games also utilize rewarded ads in their products. Company 2 is experimenting with a unique free-to-join concept, where one player, the host, buys a licence and invites friends to play in the same session for free. Their aim is to have a balance between premium, buy once, and free-to-play. The in-game currencies are seen as a design norm rather than predatory or misleading tactics. Person D would personally prefer direct transparency with the currencies, e.g. pay xx euro for item y, where players see exactly what they are buying.

None of these companies use loot boxes, in the way where they think it resembles gambling. But there are mentions of random rewards, pity timers or pity systems that are in use in some of the games made by these companies. All of the companies know about the potential regulation in the EU around loot boxes and gambling-like mechanics, but as the main market is in the U.S., that does not really raise any concerns. All companies will comply with regulations if and when they come into effect. None of the companies are altering their monetization beforehand or even thinking about what the outcome of the new legislation might be. Company 2 sees an opportunity in the ethical strategies if they operate transparently.

4.1.4 Loot boxes, random rewards and ethical concerns

All of the interviewees want to avoid predatory monetization models and think that the current free-to-play models are a good compromise of enjoying good quality entertainment for a fair price, even for free for most of the players. The games are free to play and enjoy and the gamers who want to progress faster, get better gear, or look different in the game have a choice to do that with paying for the playing. All interviewees highlighted the importance of providing value for the players. Interviewees' A & D thought that the monetization should be fair and transparent. They believed that if game companies provide enough free content, non-paying players can still participate meaningfully in the gaming experience, while paying players would gain additional benefits. Person C sees the standard free-to-play model with in-app purchases as “not inherently unethical” if it respects players’ well-being and leaves them in control. Loot boxes can give the thrill of change, which can be a positive feeling for players. By removing the randomness can also reduce the excitement for those people. Person A & C would use battle passes as an alternative to random boxes when they offer predictable rewards and improve clarity for players. Premium mobile games, buy-once, would be the perfect solution for most of the interviewees but they all acknowledge the market resistance, especially in mobile game category, those games rarely capture large enough market share. None of the interviewees had read the European consumer organisations publication “Monetising play: Regulating in-game and in-app premium currencies”, which provides recommendations both for a reform to further regulate in-game and in-app premium currencies and for better enforcement of existing EU legislation in this sector.

4.1.5 Social and psychological aspects of Free-To-Play model

Person C mentioned that free players are valuable players to gaming companies by attracting friends, sharing play experiences in social media and by generating word of mouth. The social value of the game is one way to add value to the game by a sense of belonging. It is okay to spend on the game play to get more value for the experience. Person A mentions that some players have spent hundreds of hours in the game and may have also spent a lot of money on the content like cosmetics or progression because the game holds substantial personal meaning for them. They do not feel regret doing so. Person A & D believed that free-to-play model with optional purchases can be sustainable if it was designed responsibly e.g., pity systems where player is guaranteed to be rewarded a high-value reward after number of unsuccessful attempts, clear probabilities or fair progression where player can progress in the game without spending money. Person B & D thought that EU’s concerns about gambling-like mechanics potentially push game companies toward clearer pricing. They also personally supported more transparency in pricing. Person B also sees regulation as an opportunity to stand out and also by proactively avoiding predatory designs they believe to face fewer ethical “challenges”.

4.1.6 Investor and future expectations

None of the interviewees had heard of sustainability or ethical concerns being priority or concern for the investors. Person C describes that venture capitalists most often look for high growth potential and their concerns are mostly about marketing budgets, user acquisition, and profitability. Person A, C and D also mentioned that their main market is the U.S. market, so their concerns about EU legislation is not their main concern. They also share the expectation that the regulations will tighten but will not have a huge impact on the fair designed free-to-play games.

4.2 Survey for game developers

The survey targeted game professionals. It aimed to gather insights into current monetization practices, alternative practices or strategies, ethical and regulatory concerns. It was also designed to backup or challenge one-on-one interviews. There were 16 respondents in this survey. Before proceeding to the main questions, participants were asked to confirm their consent to take part in the survey and to have their data used for academic research purposes. All respondents confirmed consent, since there was no option not to, unless they did not want to participate. There were mainly multiple-choice questions with single or multiple selections allowed, and open-text questions to gather personal opinions and explanations.

4.2.1 Demographics and Background

The purpose of this part of the survey was to explore the participants professional background and roles in the game development, size and location of the game companies they work for, what kind of products, games, they are developing and for what platforms, and what is their target market.

Some of the respondents had multiple roles currently, since the question “What is your role in the company?” was open to multiple selections. The responses can be seen in Table 2. 10 of the respondents worked as a game developer, 7 as a designer, 5 as an artist, 1 as a producer, and quality assurance. In the open question “Something else” there were 2 answers: “indie, hobbyist”, and “project leadership roles”.

Table 2. What is your role in the company? select all that apply

	n	Percent
Developer	10	62.5%
Designer	7	43.8%
Artist	5	31.3%
Something else:	2	12.5%
Producer	1	6.3%
Quality Assurance	1	6.3%
Investor	0	0.0%
C-level	0	0.0%
Support	0	0.0%
Gamer	0	0.0%

7 respondents worked in a micro sized company with less than 10 employees, 7 respondents worked in a large sized company with more than 100 employees, 1 respondent worked in a small sized company with between 10-49 employees and 1 respondent worked in a medium sized company with between 50-99 employees. 87.5% of the respondents were from Europe, 6.2% from North America and 6.2% from Australia and Oceania.

All respondents answered the question "How many games have you, or the company you work for... 1. Developed, 2. Published" Table 3. All respondents had developed at least 1 game. The maximum games developed was 100. Meaning that all respondents have had experience of game development, some more than others with an average number of 6 games developed. Minimum number of games published was 0 and maximum 13. Meaning that some respondents had not published any games and some had published several. This data also shows that not all games get to be published if the maximum number of developed games were 100, but the maximum number of published games was only 13. Average number of games published was 3.8. On average respondents have developed more games than published. The fact that some developers reported 0 published games could indicate that the companies often provide game development services to other game companies.

Table 3. How many games do you, or the company you work for...

	Min value	**Max value**	**Average**	**Median**	**Sum**	**Standard Deviation**
Developed	1.0	100.0	13.7	6.0	219.0	24.0
Published	0.0	13.0	3.8	3.0	57.0	3.8

Some of the respondents are working with multiplatform game development. There were 24 total selected answers for the question “For which platforms do you develop games?”. PC was the most common platform for developing games with 62.5% respondents developing games, second popular, 56.3%, platform is mobile platforms (Android, iOS) and third popular, 31.3%, platforms are consoles (Xbox, PlayStation, Nintendo...), no other platforms were reported.

For the question “What genre of games are you developing or have developed?”, the results are in Table 4. The Action games dominate, with 62.5% of developers having experience in this genre. The next most popular genre was Adventure with 43.8%, third place was shared with Casual and Role-Playing Game (RPG) genres with 37.5% popularity. The horror genre was fifth with 31.3%. First Person Shooter (FPS), Strategy and Shooter genres shared the six positions with 25%. Next position was shared with Arcade, Massive Multiplayer Online (MMO), Puzzle and Survival with 18.8%. Brain games and Simulation had 12.5%. The last place was shared with Card, Children, Educational, Fighting, MOBA (Multiplayers Online Battle Arena), Looter, Party and “other” which were Rogue like, Endless runner, Match-3, Idle. There were a total 73 answers meaning that developers work on multiple genres or the game in development might share multiple genres.

Table 4. What genre of games are you developing or have developed?

	n	Percent
Action	10	62.5%
Adventure	7	43.8%
Casual	6	37,5%
RPG – Role Playing Game	6	37.5%
Horror	5	31.3%
FPS – First Person Shooter	4	25.0%
Strategy	4	25.0%
Shooter	4	25.0%
Arcade	3	18.8%
MMO - Massive Multiplayer Online	3	18.8%
Puzzle	3	18.8%
Survival	3	18.8%
Other, please specify:	3	18.8%
Brain games	2	12.5%
Simulation	2	12.5%
Card	1	6.3%
Children games	1	6.3%
Educational	1	6.3%
Fighting	1	6.3%
MOBA – Multiplayer Online Battle Arena	1	6.3%
Looter	1	6.3%
Party	1	6.3%
Racing	1	6.3%
Battle Royale	0	0.0%
Board	0	0.0%

Casino	0	0.0%
Creativity	0	0.0%
Music / Rythm	0	0.0%
Sports	0	0.0%
Trivia	0	0.0%
Visual Novel	0	0.0%
Word	0	0.0%

The target market got 50 answers that can be seen in Figure 1, meaning that the games the developers make have similarly important markets across the globe. Europe was the most important market with 93.8%, the second most important market was North America 81.3%. Third most important market was Australia and Oceania with 50%. The fourth most important market was Asia 43.8%, leaving South America 25% and Africa 18.8% the least important market.

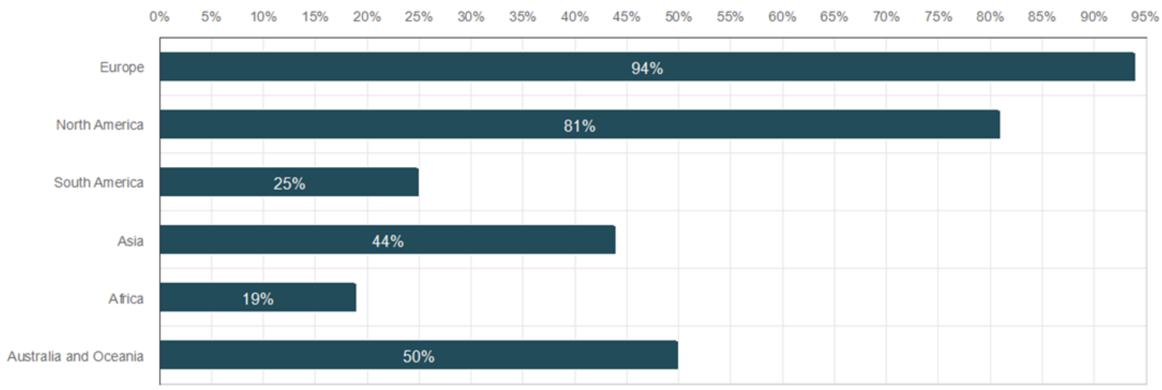

Figure 1. What is your target market? Select all that apply

4.2.2 Monetization practices

The purpose of this part of the survey was to understand the monetization models, strategies and practices the participants currently use or have used in the past. This part also explores how developers test alternative monetization strategies, gather player feedback and how they perceive the impact on player experience. The respondents have used a lot of different monetization models. The question “Which monetization models do you currently use in your games or have used in the past?”. The results of this question can be seen in Table 5. The question got 51 selected answers. The most popular model is the Free-to-play model. The next popular models are microtransactions, in-game purchases and battle passes. There was also DLC mentioned in the optional open-text field.

Table 5. Which monetization models do you currently use in your games, or have you used in the past?

	n	Percent
Free-to-Play (F2P)	11	68.8%
Microtransactions	5	31.3%
In-game purchases	5	31.3%
Battle pass	5	31.3%
Pay-to-Play (P2P) – One-time purchase	4	25.0%
Ads	4	25.0%
Subscription-based	4	25.0%
Loot boxes	3	18.8%
Cosmetics and bundles	3	18.8%
Rewarded Ads	3	18.8%
Other, please specify:	3	18.8%
Play-to-Earn	1	6.3%

“Do you use in-game currencies in the games you develop?” -question got 28 answers. The results can be seen in Table 6. There were 9 answers that stated that they do not use any currency in games they develop. That means that at least some of the other 7 developers use multiple currencies in their games.

Table 6. Do you use in-game currencies in the games you develop?

	n	Percent
Yes, soft currencies (Earned through gameplay and can be purchased; used for basic progression.)	5	31.3%
Yes, hard / premium currencies (Mainly acquired through real-money purchases; sometimes earned through special events)	6	37.5%
Yes, additional currencies (Specific to game mechanics. such as points for upgrades or tickets for event access.)	5	31.3%
Yes, other currencies that can't be bought with real money	3	18.8%
Yes, other:	0	0.0%
No	9	56.3%

4 (25%) of the respondents are not directly involved in monetization strategies. The majority of respondents, 12 (68.7%), have explored alternative monetization strategies at least to some extent, though only a small portion of respondents, 2 (12.5%) have done so extensively and 1 (6.3%) respondent said that they have not explored alternative strategies. There were no responses to the question "Which alternative monetization strategies have you studied or explored?". 5 out of 16 respondents have tested different monetization models with players. 3 respondents answered the follow-up question "what were the results of the tests or player feedback on monetization models?" from which 1 stated that they were only responsible for testing. Other two answers gave deeper knowledge about the results and testing methods they have used; the answers are in Table 7.

Table 7. What were the results of the tests or player feedback on monetization models?

Responses
I'm aware of testing, have not read results
monetisation is really hard to get good data from, in anonymous quantity tests you need basically a finished product to get proper results since players won't want to pay otherwise (other than whales or random one-off purchases). However, if you do non-anonymous or quality tests you will get biased feedback on

monetisation from players. They never really can describe why they would or wouldn't pay for something without knowing what the finished product will look like. In general people want to pay for progress if the game has perceived longevity and/or to ease frustrations that are not blamed on the game (meaning obvious difficulty spikes to force you to pay)
We've tested subscription models, they seem to work well if the game has a very long play time (or unlimited playtime) or if there are many DLCs that cost a lot to purchase individually. We've tested F2P, which puts a lot of pressure on the ability to create cheap content quickly. Not suitable for all kinds of games. We've tested Loot boxes, which might be a bit controversial. But it puts less pressure on content because you can have systemic "loot" (e.g. ability boosts or new abilities and in-game currency etc). This kind of monetization seems to work better in a multiplayer game than a single player game. I've also dabbled with ads in mobile games before. It was painful to implement in a way to not be too obtrusive to the player but still generate revenue. Then there are technical issues that one needs to solve (or at least take a stand on). E.g. how do you handle network connectivity loss? You also need a very big player base for ad revenue to actually be significant. Not my favorite way of monetization to say the least.

4.2.3 Regulations and possible impact on monetization

The purpose of this part of the survey was to explore developers' awareness of possible future regulations about monetization practises, especially those that resemble gambling-like mechanics. It also explored their concerns about potential impacts on their income and whether they can influence these regulations.

Most respondents, 10 out of 16, were not aware of the European Consumer Organizations, BEUC, publication on regulating in-game currencies “Monetising Play: Regulating in-game and in-app premium currencies”. Only 2 respondents stated that they have reviewed it. Most respondents, 7 out of 16, were concerned that regulations might affect the income, while an equal number (7), were unsure about the potential impact. Only 2 respondents were not concerned about regulations affecting income. Only 3 out of 16 respondents think that the studio they work for has the opportunity to influence new EU regulations on monetization. 3 out of 14 respondents have contingency plans if the regulations make their monetization strategy redundant. 2 respondents did not answer this question. 2 respondents gave additional information on their contingency plans “Adjust to the regulation changes. There are multiple different revenue models simultaneously, not all of them will be affected” and “changing mobile monetisation will be a huge hit but the industry will adapt. It's just sad that a lot of companies will have to restructure”.

4.2.4 Measuring monetization and ethical concerns

The purpose of this part of the survey was to explore how developers measure the success of their monetization strategies and if they face any ethical concerns related to monetization. It was also aimed to gather current practices on how to measure player satisfaction and get data that can be compared to data gathered from the survey for players. None of the respondents answered the question “How do you measure the success of your monetization strategy?”.

9 out of 16 thought that their current monetization strategy is sustainable, 7 thought that it is not. 3 respondents gave optional explanations for “no” answers: “If BEUC proposals pass through in the EU, changes will be required”, “Maybe stock marketwise some companies have figured it out but, in my opinion, it is not actually sustainable and definitely not for everyone. The industry needs to constantly adapt”, and “I'm unsure”. Two respondents gave optional explanations for “yes” answers: “We need to sell more copies though”, and “We're now mostly working on traditional monetization, i.e. pay once and play forever.”. Most respondents, 62.5%, do not have ethical concerns regarding their monetization strategy, but 37.5% do have. Two of the respondents who have ethical concerns gave optional explanations about their concerns: “Whales are sometimes kids playing with daddy’s credit card, but if so, they violate the rules to get to the position to play/spend in our game”, and “promoting gambling definitely raises ethical concerns”. 14 respondents out of 16 answered the question “Have you had ethical concerns raised by players or the community?”. Most of them, 10, have not had ethical concerns raised by players or the community, but 4 respondents have had from where one respondent gave optional answers “nothing too substantial but mostly just frustrations”. Same number of answers was given to questions “Have you measured player satisfaction with your monetization strategy?” from which 10 respondents had selected answers “no” and 4 “yes”. That may indicate the reason for the previous questions answers that there has not been a lot of ethical concerns by players or the

community, if the developers are not actively measuring the satisfaction. There were 2 optional written answers from the respondents who had measured the satisfaction; “But not lately” and “I'm not involved so I know very little about it”.

The data from Figure 2 shows that 8 of the 13 respondents, have not got feedback from players that their monetization strategy affects game play outcomes e.g., pay-to-win concerns. 3 have had frequent feedback and 2 have had rarely feedback.

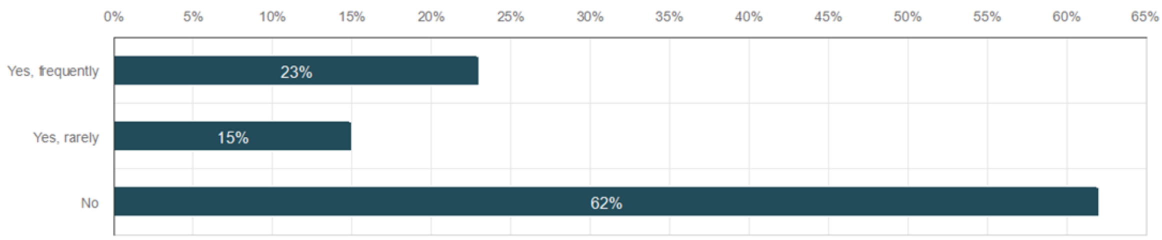

Figure 2. Have players provided feedback suggesting that your monetization strategy affects gameplay outcomes (e.g., pay-to-win concerns)?

4.2.5 Trends in player behaviour

The purpose of this part of the survey was to identify changes in player spending behaviour in the last couple of years and if developers have observed any changes.

For the question about regional spending habits, there were 14 answers. Half of the respondents had not seen any noticeable difference between player spending behaviour in different regions, 35.7% had seen significant difference and 14.3% had seen only minor difference. 6 of the 13 respondents, have noticed decreased spending in the past few years as seen in Figure 3. 4 respondents have not noticed significant change and 3 have noticed that spending has increased.

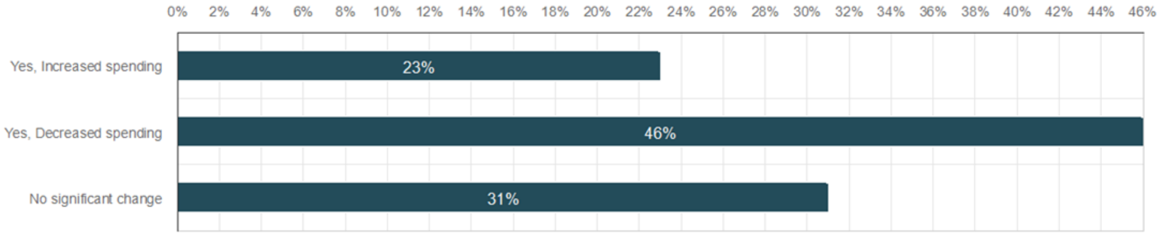

Figure 3. Have you observed changes in player spending habits in the past few years?

4.2.6 Investors in game development

This part of the survey was to explore the influence of investors on monetization strategies and find out if investors in the gaming sector are interested in sustainability and ethical considerations or are more profit driven. Only 2 respondents have got feedback or preferences from investors about their monetization strategies. 5 respondents who answered this question have had no feedback or preferences and 5 respondents do not have investors. Most respondents see investor concerns about ethical / sustainable practices as moderate to low. None of the respondents believed that there is strong investor prioritization of sustainable and ethical monetization practices. 4 (25%) respondents out of 16, felt that investors care somewhat about these issues, while 6 (37.5%) believed that investors hold a neutral stance. 5 respondents (31.2%) thought that investors are not particularly concerned, and 1 respondent (6.3%) was unsure about the subject.

4.2.7 Future of game monetization practices

The purpose of this part of the survey was to give open discussion for developers on how they see the perfect monetization in games, what kind of monetization strategies they would use, and if they have ideas or comments on how to improve the game monetization.

The open-ended question “What would be your ideal "perfect world" monetization model if constraints like regulations or investor expectations were not a factor? Why?” received 9 answers. The “traditional” single purchase or monthly subscription without microtransactions or post-sale monetization, was the preferred method. Free-to-play was also an acceptable monetization method but only if it was done in a non-exploitative or non-predatory way, “Perfect model would be a sustainable F2P model that lets anyone enjoy gaming and monetises through perceived player value in comparison to perceived company value.”. There were also signs that game developers do not like monetization mechanics that interfere with game mechanics or design, such as loot boxes or microtransactions, because that could affect the game experiences. One developer strongly criticized all post-sale monetization by stating: “Every post-sale monetisation model introduces a perverse incentive on the studio to intentionally make the game worse.”

Some developers preferred early funding models like Kickstarter-style financial or early access models to secure the development. One developer stated: “You know before you start developing how many copies you would approximately sell. Then you could scope the game for that…”. There was also an idea of dynamic pricing for players based on their spending habits, that would maximise the income without hurting the gameplay of those players who do not spend much or anything “My hunch is it revolves around monetizing users according to their spending behaviours and capabilities dynamically,”. Some respondents viewed subscriptions as a favourable middle-ground between sustainable revenue and a consumer-friendly model, stating: “Subscription is a lot of times hitting the sweet spot of sustainable revenues… and being easy to understand as consumer.” The responses indicate a preference for simpler, more transparent monetization models that prioritize gameplay quality over financial incentives.

5 respondents had opinions on if there are viable, sustainable alternatives to current monetization strategies. One opinion was against current strategies “I don't like other options.”, one respondent suggested traditional strategies such as “Monthly / one-time / non P2W microtransactions in F2P games.”. One approach was low entry fee with low-cost content upgrades, unless the title is AAA: “Low entry fee and cheap content upgrades if not on AAA budget.”. There was other opinion on AAA-titles that the development is financially demanding without aggressive monetization strategy: “The income needed to support the scope of projects and scale of teams is so far beyond what they can actually produce that they need to go deeper and deeper into weird monetisation strategies just to stay afloat.”. For AA-titles the recommended recipe would be to have the traditional model “Studios like From Software have a pretty good track record... Make a solid, finished base product… then work on an expansion that contains a dramatic amount more content.”. One alternative monetization idea was from Pokémon Go Lure where the game rewards players that are working together: “A social-based monetisation aside from just cosmetics shows promise.

Rewarding players to work together and give mutual benefits rather than targeting just players individually...”.

For the last open-ended question “Do you have any comments or ideas on how to improve game monetization?”, there were 7 responses. 2 responses preferred fair and minimal monetization, suggesting that the extra content should be offered in tasteful and non-intrusive manner. One respondent said: “No other than above. I think those are the most fair considering the gaming communities and should provide good enough cashflow for publishers/developers.”. Another added: “Less money grab stores in games that you've bought for dozens of euros would be nice. I don't want to be spammed with all kind of extra unnecessary stuff when I'm playing a story game. Advertising the developers' other games or DLC in the main menu I think is fine and tasteful.”. There was also mentioned the importance of delivering solid and enjoyable products, building trust with players. The idea is that if the product is genuinely fun and well made, people will be naturally interested in buying or subscripting without the need of excessive monetization strategies “Do less of it, and reduce team sizes. And/or, focus on delivering a solid product and building trust in your audience. Compare and contrast Ubisoft and From Software, for example.” and “Make your game more fun so more people buy and subscribe.”.

4.3 Developers view compared

This chapter is about comparing the data from the one-on-one game developer interviews to the data from the survey for developers. Both survey respondents and interviewees mentioned Free-to-play models and the survey data supported the interviewees perspective that Free-to-play models are acceptable if the model is fair, transparent and non-predatory. A single-purchase or subscription model also received strong support in both sets of data, being seen as simpler and more transparent. There were concerns about gambling-like mechanics in both data sets. All four interviewees emphasized a desire to avoid “predatory” practices and about 38% from survey respondents expressed some ethical concerns. Ten of 16 said players had not raised ethical concerns.

Most survey respondents or interviewees had not reviewed the European Consumer Organization’s publication on regulating in-game currencies. None of the four interviewees expressed concerns about possible upcoming regulations in the EU. Their primary focus is on the U.S. market. They all indicated readiness to adapt if regulations come into effect. Among survey respondents, opinions were more mixed: 7 had concerns about potential regulations might reduce income, while another 7 were unsure the regulations have any impact. Only 2 were not concerned. Some interviewees see regulatory tightening as a potential push toward clearer, more transparent pricing.

Interviewees typically did not label their random rewards as "loot boxes" in the gambling sense, and they acknowledge random rewards or pity systems and believe that these features can be fair if they are transparent. Two of the interviewees emphasized transparency that it should be transparent to players to know what they are buying. Although they see no major ethical issues with well-designed F2P, they recognize some players can spend large sums. In the survey, 18.8% reported using loot boxes, while 37.5% expressed having some ethical concerns about monetization. Only four respondents said players had raised ethical concerns about their strategies.

Interviewees note that free-to-play games can thrive on social engagement, word of mouth, and community-building. One interviewee mentioned the importance of free players, as they can draw in new users. None of the interviewees reported direct conflict with players over “pay-to-win,” though they recognized the potential risk of such monetization strategy in the long term. Survey responses from developers provided insight into actual spending behaviours they’ve observed. Some developers have witnessed decreasing spending; others saw increases or no major shifts. Half observed no regional differences, while a third believed there were significant differences in how players spend around the world.

All the interviewees work at companies that have venture capital invested or external funding. None of the interviewees said that investors dictate or give opinions on monetization strategies. They had the view that investors expect profitability and revenue growth, but they do not prioritize ethical considerations in monetization, at least on the level that the game developers do. Survey results support this perspective. Only two respondents reported investor feedback on monetization, and neither made major changes because of it. Five respondents do not have investors at all. When asked whether investors care about sustainable or ethical monetization, the majority (37.5%) are neutral. None believe there is a strong investor push for ethical or sustainable practices.

Interviewees recognized that while buy-once or subscription models might be more transparent and simpler, the mobile market often resists upfront payments. Survey respondents backed this up, when asked about their ideal “perfect world” model, the answer was often single-purchase or subscription-based model without post-sale monetization. Both groups found free-to-play models acceptable as long as they are implemented fairly and transparently, without predatory mechanics. When it comes to regulations, interviewees generally expect the industry to adapt to any new regulations, while none would prioritize preventive measures with possible EU rules.

4.4 Survey for gamers

This survey was created to gather data from players or gamers regarding their opinions, experiences and preferences on video game monetization strategies, models and practices. The survey was also made to give alternative opinions for game developers’ view in the same subject. The survey looked to answer the questions if the players consider current monetization practices to resemble gambling. The survey was targeted to all kinds of people who enjoy playing games. There were 73 respondents in this survey. Before proceeding to the main questions, participants were asked to confirm their consent to take part in the survey and to have their data used for academic research purposes. All respondents confirmed consent, since there was no option not to, unless they did not want to participate. There were mainly multiple-choice questions with single or multiple selections allowed, and open-text questions to gather personal opinions and explanations.

4.4.1 Demographics and background as a player

The purpose of this section of the survey was to gather basic information about the respondents, including their location, gaming habits, platform and game genre preferences, and how often they play. The majority of respondents, 58.9%, play video games every day. 30.1% play a few times a week and 9.6% play a few times a month and only 1 respondent plays video games rarely. The survey captured a broad base of frequent players, so that could suggest that many of the respondents are well aware of current industry monetization trends and standards.

PC was the most dominant platform for video games among the respondents. Next most popular choice was Console playing (43.8%), third was Mobile gaming (32.9%). Since there were 124 answers from 73 respondents, that indicates that many gamers engage with multiple platforms and enjoy cross-platform gaming. There were also non-digital preferences among the respondents. Some players enjoy offline games: "on board (Board games)" and "Card, Board and Tabletop Games" and web-based games "web games on browser".

Almost all respondents, 72 out of 73 were from Europe, with the exception of one gamer from North America. Since regulations concerning loot boxes and gambling predominantly affect European countries, this heavy European sample could bias the results toward European perspectives on monetization strategies and trends. This bias may also influence views on regulation, ethics, and the sustainability of monetization practices. Limited perspective from other regions means that the findings may not fully reflect global attitudes toward monetization. Gaming cultures, economic conditions, and regulatory environments vary across different parts of the world, which could lead to differing player opinions and experiences with in-game purchases.

The multi-selection question "What types of games do you play?" got a total of 626 answers from 73 respondents. Most popular game types, selected by over 50% of respondents, were FPS (75.3%), Adventure (72.6%), Action (67.1%), RPG (61.6%), and Shooter (54.8%). Survival (46.6%) and Strategy (42.5%) games received notable attention. Moderately popular genres, selected by approximately 20% to 40% of respondents, were Simulation (38.4%), Puzzle (37.0%), Casual (35.6%), Battle Royale (28.8%), Brain Games (28.8%), Board Games (23.3%), MMO (21.9%), Racing (21.9%), and MOBA (20.5%). The least popular genres, selected by fever than 20% of respondents included for example Creativity, Arcade, Horror, Card, and Sports genres. A total of six respondents also specified additional genres under the open-ended category 'Other, please specify': Souls-like, Sandbox, Gacha, Erotic, Roguelikes, and Minecraft. These results are presented in Table 8.

Table 8. What types of games do you play?

	n	**Percent**

FPS	55	75.3%
Adventure	53	72.6%
Action	49	67.1%
Role-Playing - RPG	45	61.6%
Shooter	40	54.8%
Survival	34	46.6%
Strategy	31	42.5%
Simulation	28	38.4%
Puzzle	27	37.0%
Casual	26	35.6%
Battle Royale	21	28.8%
Brain games	21	28.8%
Board	17	23.3%
MMO (Massive Multiplayer Online)	16	21.9%
Racing	16	21.9%
MOBA – Multiplayer Online Battle Arena	15	20.5%
Creativity	14	19.2%
Arcade	13	17.8%
Looter	13	17.8%
Horror	12	16.4%
Music / Rhythm	12	16.4%
Card	11	15.1%
Sports	11	15.1%
Fighting	9	12.3%
Visual Novel	9	12.3%
Party	7	9.6%

Other, please specify:	6	8.2%
Educational	4	5.5%
Casino	3	4.1%
Trivia	3	4.1%
Word	3	4.1%
Children games	2	2.7%

4.4.2 Spending habits

This section aimed to explore players' spending habits and what kind of monetization practices they are familiar with. The Table 9 provides the 360 answers from 72 respondents for the question "Which of the following monetization models do you encounter most often in the games you play?". The majority of respondents have encountered in-game purchases 76.4%, Pay-to-Play – One-time purchase 75%, and Free-2-Play 68.1%. Microtransactions, Cosmetics and bundles, Battle passes, and Loot Boxes were also frequently encountered as well as Subscription-based monetization models and Ads. The rarest monetization models were Rewarded Ads, Play-to-Earn and two other respondents provided options: Membership for RuneScape and DLC.

Table 9. Which of the following monetization models do you encounter most often in the games you play?

	n	Percent
In-game purchases	55	76.4%
Pay-to-Play (P2P) – One-time purchase	54	75.0%
Free-to-Play (F2P)	49	68.1%
Microtransactions	42	58.3%
Cosmetics and bundles	39	54.2%
Battle pass	39	54.2%

Loot boxes	32	44.4%
Subscription-based	18	25.0%
Ads	15	20.8%
Rewarded Ads	8	11.1%
Play-to-Earn	7	9.7%
Other, please specify:	2	2.8%

A total of 225 in-game purchases were reported by 71 respondents, indicating that each respondent had made, on average, approximately three different types of in-game purchases. Table 10 shows that the most common type of purchase was DLC or Expansion packs, selected by 84.5% of respondents. The next popular types were season or battle passes (57.7%), and cosmetic items (54.9%). Coins and currencies had 29 responses, 40.8% and the rest had under 20% on responses.

Table 10. What kind of in-game purchases have you made before?

	n	**Percent**
DLC or expansion packs	60	84.5%
Season passes or battle passes	41	57.7%
Cosmetic items (skins, avatars, etc.)	39	54.9%
Coins or other currency	29	40.8%
Randomized rewards (loot boxes, gacha pulls)	26	36.6%
Performance upgrades (weapons, abilities)	14	19.7%
Time-saving items (boosters, skip timers)	14	19.7%
Other, please specify:	2	2.8%

The respondent does not spend much money for the games. There were two respondents who spend over 50€ per month for games, from which one spends more than 100€ a month. A majority, 76.7%, spend less than 10€ per month on in-game purchases, including 19.2% who reported never spending any money at all. The middle ground, spending between 10€ to 49€ had 20.5% answers. All the respondents know how much if any they spend on games. This could mean that the high spenders, the whales, are a small segment of players and most of the players are budget-conscious or select carefully what they spend their money on. From the previous questions the most popular in-game purchase type was DLC, which might offer best value for the game, because DLC and Season / Battle -passes often bring more longevity and new content for the game the player already enjoys.

4.4.3 Opinions on the current monetization models

The purpose of this section was to figure out how the players feel about current monetization practices and if they think that there are gambling like mechanics. The feeling of being pressured to pay was also examined and how the players think what kind of monetization practices are ok and what are not.

The most liked monetization model among the respondents was One-time purchase, with an average score of 4.7. Play-to-Earn had an average score of 2.6. Battle pass and one virtual currency had an average score of 2.5. 76.4% of respondents rated One-time purchase to 5 “I Love it”.

The most hated monetization models were Ads during gameplay, Multiple currencies, Microtransactions, Loot boxes, and subscription services. Nearly 80% of respondents gave 1 “I don’t like at all” for the Ads during gameplay, 64% rated Multiple currencies to 1 “I don’t like at all”, 51.5% gave Microtransactions 1 “I don’t like at all”, and 50% gave Loot boxes 1 “I don’t like at all” rating. The data can be seen in Table 11.

Table 11. How do you feel about the following monetization models? Most liked and disliked values are bolded.

Rate 1–5: 1 = I don’t like at all 5 = I Love it Leave empty = I am not familiar with this

	1	2	3	4	5	Average	Median
Microtransactions	51.5%	19.1%	25.0%	2.9%	1.5%	1.8	1.0
Loot boxes	50.0%	19.4%	16.7%	12.5%	1.4%	2.0	1.5
Battle passes	28.2%	23.9%	26.8%	15.5%	5.6%	2.5	2.0
Ads during gameplay	**78.9%**	16.9%	2.8%	1.4%	0.0%	1.3	1.0
Play-to-Earn models	42.6%	6.6%	18.0%	18.0%	14.8%	2.6	3.0
One-time purchase games	2.8%	0.0%	2.8%	18.0%	**76.4%**	4.7	5.0
Subscription services	31.0%	32.4%	21.1%	14.1%	1.4%	2.2	2.0
One currency (coins, diamonds, stars etc.)	31.9%	20.3%	24.6%	14.5%	8.7%	2.5	2.0
Multiple currencies for different actions (coins, diamonds, stars etc.)	63.6%	24.3%	9.1%	3.0%	0.0%	1.5	1.0

Most of the respondents, 63 out of 73, think that loot boxes resemble gambling. 61.6% of the respondents have felt pressured to spend money in games to stay competitive or keep up with others. Of these 49.3%, reported feeling this pressure “sometimes” and 12.3% “often”. 38.4% have never felt any pressure to spend money on games.

71 of 73 respondents answered the question “Do you prefer games with cosmetic-only purchases (no gameplay advantages)?”. Most of the respondents, 56.3%, preferred games with cosmetic-only purchases that do not have advantages on the gameplay. These players are maybe seeking fairness and balance in the gameplay. 26.8% thought that it depends on the game and 16.9% answered that they prefer in-game purchases that do have gameplay advantage.

43 (58.9%) of the respondents have stopped playing a game because of its monetization practices. The additional question “Why have you stopped playing a game because of its monetization practices?” was asked from respondents who answered “yes” in that question. This question got 138 answers. The biggest reason for stopping to play games was “The game felt pay-to-win”, 74.4%, the second highest reason was “I don’t support unethical

monetization practices", 53.5%, third highest reason was "The game required constant spending to progress" 46.5%. Only 3 answers were saying that "I don't want to pay for the games", 10 said that "The in-game purchases were too expensive". All of the data can be seen in Table 12. There are 5 additional reasons in the open-ended question, like "Time-gated battle pass rewards prey on fear of missing out and creating an artificial compulsion to keep playing" and "I no longer play FPS online games because the gameplay mechanics and loot box type rewards and skins etc ruined the experience.". There were also geopolitical reasons to stop playing games: "Russian developed games due to Ruskie attacking Ukraine".

Table 12. Answers for the question "Why have you stopped playing a game because of its monetization practices?"

	n	**Percent**
The game felt pay-to-win	32	74.4%
I don't support unethical monetization practices (for example, gambling mechanics, targeting children)	23	53.5%
The game required constant spending to progress	20	46.5%
The game lacked value compared to the money spent	18	41.9%
Advertisements interrupted the gameplay	14	32.6%
Loot boxes or randomized rewards felt unfair	13	30.2%
The in-game purchases were too expensive	10	23.3%
Other reason?	5	11.6%
I don't want to pay for games	3	7.0%

Majority of respondents, 52 (74.3%), said that in-game purchases should impact only purely cosmetic items. 2 (2.8%) of the respondents felt that in-game purchases should impact gameplay performance and the rest, 16 (22.9%) thought a mix of both would be the perfect solution.

4.4.4 Ethical considerations

The goal for this section was to understand if the players think that the current monetization practices are ethical, sustainable and transparent to players, and how they feel those aspects effect on the game play and willingness to keep playing the games.

Most, 68.5% of the respondents think that the monetization strategies in games are transparent, from all respondents 4.1% think that the strategies are very transparent. 31.5% feel like the monetization strategies are not transparent at all. Open-ended answers gave insights that some players have not seen how the odds are calculated: “i don't remember seeing percentages for odds for example” and “None of the games clearly and easily give accurate odds for rewards”, some players feel that the content value is close to zero “9-10 times out of 10 the content for the money is close to zero.”, and some are feeling that game companies try to cheat the money out of players “They all feel like they try nickle and dime, cheat my money away”.

78.1% of respondents have ethical concerns about in-game monetization. Four highest and most ethical issues gamers feel are “loot boxes resemble gambling” 75.4% of answers, “Lack of 'spending limits' for young players” 73.7%, “Pay-to-win models” 71.9%, and 52.9% of answers concerned the “High costs for premium content”.

13 open-ended answers, seen in Table 13, showed that there are a lot of ethical concerns about in-game monetization that go further than just loot boxes and pay-to-win models. The respondents were concerned that the business models are designed to maximize profit at the expense of the user’s well-being by using psychological exploitation (predatory monetization models) and systemic pressure to keep paying.

Table 13. What ethical concerns do you have about in-game monetization? Open-end answer to “Other, please specify”

Responses
A lot of them feel like scams and I think take advantage of younger audiences especially
gambling mechanics in general

everything becoming a monthly subscription
Creating fear of missing out and other psychological manipulation
Free games starting to rise their cosmetic skins > lower quality, higher value
DRM
lack of spending limits for all players
whaling causes people in problems to make excessive business benefit for the company -> such loss/win situation is unethical
Making good games shitty to sell them more than once to the same customer
Cutting game into pieces and selling it piece by piece as "DLC's" and "Expansions"
It's addictiveness
Loot boxes dont just resemble gambling. They are functionally equivilant to a slot machine. Games which let tou purchase more loot crates for real money not jist credits earned through gameplay ARE gambling. Yes they have a higher win percentage, and they do always give you SOME reward. But it teaches children and young teens the habits of gambling, the dopamine rush of gambling, and the mental thought process to accept chasing that high. I know many games have age suggestions which should make them unavailable to minors or young teens, but realisticly, that is a huge part of the player demographic and parents ignore age restrictions all the time.
As stated in previous answer, a lot of times ingame monetization feels like a scam.

Majority of respondents, 84.9%, believe that game companies should have more sustainable and ethical monetization strategies. There were additional open-end questions “why” for the respondents who selected “Yes” for the answer in the question “Do you believe game companies should adopt more sustainable and ethical monetization strategies?”, which received 8 answers. The players feel that the one-time purchase with DLC’s would be highly valued and probably also transparent and ethical option: "I prefer one-time purchases, or free-to-play models with cosmetic microtransactions.", "Pay once and play is what I want,", and “DLCs are very much ok and preferred if the added content is in line with the price.”. There were also ethical concerns: “They should be more ethical.... many in-game monetization mechanics are designed to milk every single last possible penny they can. Yes, this is capitalism, yes this is a consumer-driven market and the consumer seems happy to pay it. But the ethics of it are just grimy.", and frustration “Just sell the fokken games, like it is supposed to work.”.

60 out of 73 (82.2%) of respondents think that transparent and ethical monetization would affect their decision to play a game. From the open text answers many respondents said that it is essential to know what they are paying for, and it is ok to pay for that kind of product, even at higher prices. One respondent stated, "If I know exactly what I'm paying for and what I get is ok.", and another wrote, "I would absolutely pay a higher initial price for a game if it means I have less or no in-game purchases,". The players would also want to support developers who have ethical monetization models, which means that ethical decision is not only something that can be tolerated but it is also wanted. One respondent mentioned, "I would be more inclined to try it," while another added, "Definitely would help if devs could show how that monetization would help them.". The players are also motivated and sensitive to fair monetization models, as it was commented, "I don't pay in-game anymore, but ethical practices would give a company a better image in general.", and "I will not play games with clearly in transparent/unethical monetization models.".

4.4.5 Preferences and future monetization models

The final section of this survey explored player preferences for perfect monetization models, and if they have ideas on how to improve the game monetization. The questions were open-ended to give free discussion and voice to the players.

Most of the respondents, 53 (72.6%), would prefer to pay-once for a complete game that does not have in-game purchases. 15 (20.5%) of respondents would prefer smaller upfront payment with optional purchases. 2 respondents would prefer a monthly subscription to the game library. 2 respondents would prefer free-to-play games, one with in-game purchases that provide competitive advantage, and one would prefer to see ads. One respondent would prefer “Cheap or free base game with expansions or purchasable content”.

The additional open-end question “why they would prefer this model” got 38 answers and comments. There were comments from the players that see the buy-once model honest and non-manipulative: “Classic pay and play.”, "It's straightforward and honest, and it does not leave room for exploitation of addictions.", “You choose to buy game and then you get it all.", "It’s fair. I know how much I pay and what I get.", “I like to pay for a game once because I think that once I've paid for it I should have access to all features it has to offer.”, “You get the entire product you paid for.”. There were also comments on why some features make the model not that good: “In-game purchases make games feel 'cheap' and ruin experience in console or pc gaming.”, “I hate it when companies try to create profit from enshittification of everything.”.

Last open question about comment or ideas on how to improve game monetization got 25 answers from 73 respondents. Many respondents emphasized the importance of transparent and open monetization practices, “There should be more transparency and less predatory practices when it comes to monetization.”.

Players are willing to spend for games and content if there is true value for the money, “I pay if it is worth it. If I feel even once ‘scammed’ I won’t even consider the whole company anymore.”, and “Spend that effort on improving the game instead. Too many game developers nowadays are busy figuring out how to keep addicts playing their games instead of making good games the rest of us would gladly pay for.”. There were responses that highlighted the need for games to have fair, non-manipulative or non-predatory game monetization mechanics, “Loot boxes should be regulated better, because they can be really harmful for still-developing children.”. The ethical monetization practices in gaming have strong demand and players clearly want developers to move away from predatory tactics like gambling like mechanics, “There should be more transparency and less predatory practices when it comes to monetization.”, and “Do not try to manipulate the players and do not build your gameplay around shady monetization schemes.”. Players want developers to focus on delivering quality games that have true value for the money, “I want games to be fully developed and working when the game launches, not some half-baked buggy and crashy pieces of money laundering machine apps…”, “As a game design student, developer (unemployed) and a gamer… storytelling and the integrity of the creative product should come first.”, and “If we could make the never-ending greed of big game companies disappear, the gaming world would be a much happier place. Smaller studios seem to care about the consumers, and it shows also in the products.”

4.5 Developers view data compared to players view data

Most of the respondents in both surveys and as well as all interviewees, are located in Europe. Only 2 survey respondents came from North America and one from Australia/Oceania. Gamers in the survey are mostly daily players, with a strong focus on PC gaming, followed by console and mobile gaming. Similarly, the developers in the survey create games for PC, followed by mobile platforms and consoles. Interviewed developers mostly develop games for mobile platforms. Developers indicate that their target consumer segments are primarily located in North America and Europe.

Developers report observing varying spending behaviours among their players in the past few years. Some mention steady or slightly decreasing spending, while others see no major shifts. Around half of the surveyed developers see minimal regional differences in spending, whereas a third note significant contrasts in how players from different parts of the world spend money. The majority of the players spend little, less than 10€, or no money at all on games or in-game purchases. When the players spend, they tend to spend money on “transparent” purchases such as DLC’s, season passes and cosmetic items, while randomized rewards were favoured in just over a third of the responses. This player’s preference for transparent and non-predatory monetization models aligns with the developer’s view that fair and transparent monetization models are more acceptable.

Single-purchase or subscription-based models received strong support from both sides for their transparency and simplicity. Many gamers think that subscription models or a one-time purchase option are fairer because the cost is transparent. Interviewed developers shared this view and saw these approaches are simpler to communicate to players. Both developers and players think that the free-to-play model is acceptable when it is non-predatory, transparent, and does not push pay-to-win features, or have ads during the gameplay. Ads during the gameplay is a feature which were the least liked of all monetization models. Developers are more open to a variety of in-game monetization systems, including random rewards, if these models are implemented in a “fair” way.

Interviewed developers do not view their random reward systems to resemble gambling, because they think that transparency and pity systems that they prefer, guarantee certain outcomes over time. They believe that clearly displaying odds and offering pity mechanics addresses core ethical concerns. Surveyed gamers are more critical, viewing loot boxes as gambling-like if players have to pay for a random reward, and if the payment process is not transparent. Players also stated that monetization strategies are rarely transparent, except for one-time purchases or DLC's. Players also worry about the psychological impact of spending money on unpredictable outcomes. Ethical concerns about monetization practices were noted by approximately a third of surveyed developers, including issues with high-spending players "whales", and concerns about promoting gambling-like mechanics in games. Four respondents report direct player complaints about their models. All four interviewees wanted to avoid "predatory" practices.

The players believed in the importance of regulatory oversight to prevent exploitative reading of free-to-play or random reward mechanics. Some players placed high importance on potential consumer protection rules. Some players have stopped playing games if they feel that the titles have unethical monetization mechanics. None of the interviewed developers expressed urgency about possible EU regulations, mainly because their primary focus was on the U.S. market, but showed readiness to adapt if regulations eventually arrived. Around seven surveyed developers worry that potential regulation could reduce revenue, another seven are unsure of its impact, and only two express no concerns at all. Developers seem to feel more confident they can adapt swiftly, and that regulations may clarify what is permissible without necessarily having an impact on business growth.

5 Discussion

This chapter provides an interpretative analysis of findings from the data that was gathered and compared for this research. It also searches answers to the research questions that were introduced in the beginning of this thesis:

1. What are the current alternatives to loot boxes in video games monetization, and how do they differ from loot boxes?
2. What are the main factors that influence player spending behaviour in Video Games?
3. What kind of sustainable monetization strategies are investors looking for in the videogame industry?

Three different data sets were used in this research: One-on-one interviews with 4 seasoned game developers, an open survey for game professionals with 16 respondents, and an open survey for gamers with 73 respondents.

The findings were done by comparing the data from survey to gamers against the data from the game developer’s interviews and survey. The compared data was then examined to find ethical considerations, regulatory expectations, and differences between player and developer perspectives. As such, this section integrates data analysis into the discussion. This comparison highlights the rationale behind developers' monetization decisions and how these strategies impact players, as well as the gap between those who create games and those who play them. It also revealed common trends that help understand best practices, ethical considerations, and the sustainability of monetization strategies.

Understanding the relationship between gaming industry and consumers is essential as discrepancies can impact on the success of the game. If the consumer response is negative, the developing party may not get money for further development and vice versa. Since monetization strategies often vary between platforms, the data gathered in this research gives a good starting point for comparing how developers and players see monetization. All aspects of the product must match; the game has to deliver good quality that matches the pricing. Consumers are price conscious.

Most of the respondents in both surveys and as well as all interviewees, are located in Europe and only 2 survey respondents came from North America and one from Australia/Oceania, so there is a regional bias in this research, making the findings more reflective of how Europeans see the monetization in games. European players may be more exposed to public discussions about consumer protection, data privacy, and digital rights, making them more receptive to regulation. It is good to remember that many of the game developers are gamers themselves, and they are likely to have personal opinions about how they would like to spend their money on gaming. It is also important to note that the game developers interviewed or surveyed do not necessarily make the decisions on how the game they are developing is monetized.

A strong preference for single-purchase or subscription models is clear across both surveys and interviews, with developers acknowledging a difficulty in applying these models to mobile games. Similarly to the findings reported by King and Delfabbro (2019), both sides identify free-to-play as a viable monetization model, as long as it remains fair, transparent, avoids pay-to-win scenarios, and avoids use of psychological vulnerabilities against players. This could be a consensus on the importance of fairness and transparency in free-to-play experiences. As King and Delfabbro (2019) point out, loot boxes or other random reward systems can remain viable when their odds are clearly disclosed, or a “pity system” guarantees certain valuable rewards after a number of attempts. That kind of model should be very clearly and openly executed to give players true transparency on how much they need to spend to gain their goal in the game.

There was not much, if not at all, discussion from either side of how coins are considered to resemble gambling. The BEUC (2024) report notes that in-game currencies are most often not directly converted to real life money and are typically sold in bundles or packages, making it even more difficult for players to understand their true value. Both groups see advantages in the upfront communication of costs, allowing players to understand exactly what they are paying for before committing. Surveyed developers also described these approaches as the ideal "perfect world" monetization strategy. This suggests that the absence of post-sale monetization can build trust with players. Similarly, players like to spend on DLCs or season passes because of their transparent nature. The results suggest that there is a clear industry-wide need to move from the traditional Loot Box concept to alternatives that offer greater transparency, fairness, and predictability in the monetization process.

Player’s spending aligns with developers reports about player spending behaviour. Developers report in their observations that some players spend little or nothing, while most players spend on games or in-game purchases, choosing games that have fair and non-predatory models. From gamers’ view, the most important factor is transparency. Players are more likely to spend on games that can be purchased fully beforehand, DLCs, cosmetic items, or season passes. These are all products that they can fully understand before making the purchase. Because most of the surveyed players were from Europe, this research could not comprehensively explore regional spending differences from the player perspective. Several developers mentioned that spending has either decreased slightly or remained stable in recent years, though individual experiences vary.

The pay-to-win features or ads during gameplay ruin the experience and make players less willing to spend money on that game. Purchases should feel voluntary and genuinely rewarding rather than manipulative. Players’ ethical concerns influence their willingness to spend money on games. Players question the psychological impact of random rewards, which also raise concerns related to gambling-like mechanics, especially if there is lack of transparent disclosure regarding the odds involved. Zendle, Meyer and Ballou (2020) observed that although exposure to loot boxes and cosmetic microtransactions grew rapidly between 2012–2014, growth has since plateaued, potentially reflecting growing consumer awareness and criticism. By the end of the observed period, the exposure to pay-to-win features remained comparatively low (15.9%), possibly indicating players' general aversion to such mechanics. In a later study Petrovskaya and Zendle (2022) found that players consistently described pay-to-win features, competitive disadvantages for non-paying users, and subscription-based stat boosts as inherently unfair, often leading to negative perceptions of the entire game. They also identified 35 monetization practices across domains such as predatory advertising and misleading product design that players found aggressive, misleading, or unethical. It became clear that if gamers sense that a product’s monetization is exploitative, some will abandon the game altogether.

Interviewed developers generally aim to maintain a trustworthy reputation by avoiding revenue models that appear deceptive or manipulative. They also think that the models they use, even the loot boxes, do not resemble gambling, and have fair odds for the players that use money on the gameplay. There was also a gap between player discomfort to provide feedback because of the lack of official feedback channels, as some players may hesitate to contact developers directly about their concerns. It is clear that players have concerns about monetization models, and most of the surveyed developers have not had any feedback. Most developers involved in the research do not actively measure the success of the monetization from the players point of view.

The data from developer's survey and interviewees reveals that investors do not steer decisions about ethical or transparent monetization strategies. Investors' primary concern seems to be profitability and revenue growth, although some of the surveyed developers think that investors are somewhat concerned about sustainable and ethical monetization practises. All interviewed developers work at companies that have external funding or venture capital backing, yet survey data confirms that investor influence on monetization models is minimal. Only two respondents reported receiving any investor feedback on monetization approaches, and neither had to change their strategies as a result. The majority of surveyed developers expressed neutrality on whether investors care about sustainability or ethical issues, and none believed there was a strong push from investors to adopt these considerations. Developers still anticipate they may need to adapt to possible regulations in the future, especially those working on games that have a strong market area in Europe. From developers' point of view, any upcoming regulations will likely lead to clearer guidelines for monetization, but they do not expect that it will lose their ability to generate revenue.

Different perspectives can influence the success or failure of any monetization strategy. Developers, including those with external funding, emphasize profitability and revenue growth while trying to stay within their own ethical boundaries, and gamers on the other hand want practices that feel non-manipulative and transparent, and offer good value for the money. The long-term success for any game product is likely to depend on the balance between return expectations and player fairness, transparency, and ethically sound design and good value propositions.

6 Limitations

The main limitations of this study relate to the sample size and geographical distribution of participants, which affects the generalizability of the results. Most participants were based in Europe, meaning that the findings primarily reflect European perspectives on how the games are monetized and how players feel about the monetization models. Cultural, economic and regulatory differences in other regions may result in differing views, suggesting that these findings may be limited to the European market. Because the distribution of the survey relied heavily on personal and professional networks, this study included only four in-depth interviews with game developers, along with survey responses from 16 developers and 73 gamers. The modest sample sizes limit the diversity of perspectives and may introduce selection bias, limiting the ability to generalize the findings across the industry or broader player base.

To address these limitations, the same surveys and interview template could be distributed in other regions in future studies to cover other markets and achieve a more globally representative sample. The data collection period could have been longer and there could have been more extensive promotional efforts to get more professionals and gamers to participate in surveys. Collaboration with industry organizations could also help expand survey distribution.

None of the professional participants in the survey or interviews stated that they were the decision makers on monetization practices. The data relies on participants' own accounts of monetization practices and ethical concerns, so the findings may be influenced by social desirability bias or incomplete knowledge. While the study addressed investor expectations about profitability and ethical considerations, no interviews were conducted with investors, nor did any survey respondents identify themselves as investors. To address these limitations, future research could include interviews with game designers, managers, and directors who are directly responsible for the monetization models implemented in games. Interviews or surveys targeting venture capitalists within the gaming sector could provide more comprehensive insights into investor perspectives.

Because the survey required respondents to be legal adults, over 18 years of age, there are no direct perspectives from minors or 'vulnerable' players regarding how they feel about loot boxes, virtual currencies, or other mechanics that were discussed in this study. Collaboration with youth organizations or educational institutions could provide ethically approved access and age-appropriate surveys to enable research with younger participants in the future.

7 Conclusions

This thesis explored alternative monetization strategies, models and trends for video games, focusing on sustainable alternatives to loot boxes. The research findings highlight that transparency and fairness are essential foundations for developing ethical, sustainable, and commercially successful monetization strategies. By examining alternatives to loot boxes, player spending motivations, and investor expectations, the study emphasizes the need for monetization models that balance profitability with player trust and regulatory compliance.

The findings revealed common goals for transparent, fair and non-exploitative models across game developers and gamers. It became clear that to have ethical and commercially viable products the transparency of payments and fairness are essential. While some respondents view loot boxes as acceptable if implemented with clearly disclosed odds or pity systems, the overall data indicate that a sizable portion of gamers still perceive them as gambling-like, leading to negative perceptions and, in some cases, quitting the game altogether. Simpler approaches like direct cosmetic sales, season passes, and optional DLCs appear more ethically acceptable to a broad range of players. The psychological and ethical concerns surrounding gambling-like mechanics also play a significant role in spending decisions. Players are more likely to engage in spending when they feel in control and when they trust the system. They are also more willing to spend when they believe they receive meaningful and quality content for their money. The interviews confirm that developers also recognize these factors, emphasizing the need to preserve trust and to balance revenue generation with player goodwill.

From the data gathered, there is no firm consensus among investors on what sustainability strictly means in monetization. Investors primarily focus on profitability and revenue growth, rather than prioritizing ethical considerations in monetization strategies. Developers noted that investors do not typically influence specific monetization decisions. The data suggest that most investors have not exercised direct influence on ethical or sustainable design choices, as long as revenue projections remain strong. While there is little indication that investors are pushing for more sustainable or ethical monetization, there is a growing awareness among developers that the players are looking for ethical solutions, and regulatory developments surrounding loot boxes may lead to need to adapt of transparent models, which may become a concern for investors.

In this research we could not reach any investors in interviews or surveys to confirm or deny these findings. There is a need for further research into the investors' thoughts about video game monetization strategies from all perspectives, including ethical and sustainable views.

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Appendix 1. Interview questions

Background:

What is your role in the company?

When the company was founded / how old is the company

What size is the company?

Are you independent, public owned, Employee owned, Family owned, something else?

What is the annual revenue, ballpark?

Does your products generate enough money that you can continue to develop games

How many products/games have you developed / published?

Do you publish the games yourself or use publishers?

How many games are still alive?

Do you have Venture capital money invested in you company? If not, are you planning to have? If yes, how much – ballpark? How many investments rounds?

For what did you take VC capital in?

How has external money helped the company?

For which platforms do you develop / publish games?

Customer:

Who is your target market customer

What is the main market in the world for you?

How do you do market research?

How do you manage your customer relationship?

Does customer feedback effect on game design particularly in monetization model

Monetization:

What kind of monetization models, payment models or strategies do you use in your games?

What kind of game currencies do you have?

Do you use in-game premium currencies?

Have you tried other monetization models? If yes, which ones?

How have they performed?

If you use F2P monetization model and use loot boxes, have you thought about moving to other kind of monetization models?

How much have you studied or explored other possible monetization strategies?

Have you tested with your players these models?
What is your take on the European Consumer Organizations publication about Regulating in-game and in-app premium currencies?
Are you afraid that new regulations might affect the income?
Do you think that you have opportunities to influence new EU regulations for game or app monetization strategies?
If you think that regulations will make your monetization strategy redundant, how are you going to change it?
Do you have a schedule for the change?
What would be the perfect monetization model for you "in the perfect world" (if you would not have to care about anything else)? Why?
How do you measure your monetization strategy? Or what metrics do you use to measure monetization success?
If you have, or have tried different monetization strategies, how have you done comparison or A/B testing of the models with your players? If yes, what were the results?
Do you think that the monetization strategy you have chosen is sustainable?
Do you think that there could be alternatives to your strategy from a sustainable point of view?
What ethical concerns have you faced regarding your strategy?
Are the concerns loot box or in-game currency related? If yes, how have you addressed them?
How have your players responded to your monetization strategy?
Have you measured player feedback or satisfaction?
How do you balance player satisfaction and retention with your monetization model?
Is the monetization model transparent for players?
Have you studied or got feedback from players that the monetization strategy might have an effect on the results or outcomes of the gameplay?
Have you noticed differences between how players spend in-game purchases in different parts of the world?
Have you noticed a change in player spending in the past few years?
If you have VC money invested in your company, have you got feedback or advice about preferred monetization strategies or what to avoid? If yes, how has that affected your strategy?

Do you think investors are concerned in sustainable and ethical monetization in video games?
Is there something else you would like to comment on this topic?