



Karelia University of Applied Sciences  
BBA

# Microtransactions and Their Usage

Joona Pöppönen

Thesis, June 2022

[www.karelia.fi](http://www.karelia.fi)



**THESIS**  
**June 2022**  
**Degree programme in International Business**

Tikkarinne 9  
80200 JOENSUU  
+358 13 260 600

Joona Pöppönen

## Microtransactions and Their Usage

The main idea for this thesis came from the author's personal knowledge and interest in the gaming industry. The author is strongly interested in studying the ongoing phenomenon of microtransactions. The author actively follows the latest trends and news happening in the industry and has encountered multiple times news or discussions regarding microtransactions. Seeing topics actively brought to daylight regarding them, the author wanted to figure out how commonly microtransactions are bought and used by active consumers of video games.

This thesis will focus on video games and respectively to microtransactions that are offered in the most newly released games. The objective of this thesis is to study microtransactions, their popularity, and the reasons behind their success. During the research process, qualitative data were collected in form of a questionnaire from the survey participants regarding the usage of microtransactions. Desk research was done to gather and study data through different materials available from various online sources including academic literature and online journal articles.

One of the main research questions is to find out how popular these microtransactions are with the users, where the built questionnaire acted as a tool to gather data towards this question. The thesis also takes a brief look at the present video games market and their popularity in the entertainment industry and looks through the legal aspects affecting them.

Based on the findings it can be pointed out that microtransactions are commonly bought between active users. Players are most willing to pay for a cosmetic form of microtransactions and games where microtransactions are bought often, are presenting a free-to-play business model.

Language  
English

Pages 40  
Appendices 10  
Pages of Appendices 7

Keywords  
thesis, video games, microtransactions, pay-to-win, free-to-play

## Contents

1	Introduction .....	4
1.1	Glossary .....	5
2	Research .....	6
3	Nature of microtransactions .....	7
3.1	History of games and microtransactions .....	9
3.2	Microtransactions now .....	11
4	Types of microtransactions .....	15
5	Market overview .....	18
5.1	Regulations of microtransactions .....	21
6	Questionnaire results .....	24
7	Conclusion .....	35
8	References .....	38

### Appendices

Survey questions 1-10

## 1 Introduction

Humans have been playing some forms of games since ancient times. Throughout history, humans have evolved gaming to a point that it includes a wide variety of different card and board games, sports, role-playing, and video games.

The rapid development of technology and better connections available have made it possible for the video games industry to grow annually to the point where it is today. Video games' popularity has greatly risen over the years, and currently, it holds the position as the most profitable entertainment industry on the market. (Richter 2020.) Numerous people have also made careers out of video games, thanks to the massive interest in e-sports and competitive gaming. In addition to professional players, there are content creators and streamers with full-time careers based around video games, not to mention developers and marketing teams who are dedicated to bringing the products consumers want to play next.

Some elements regarding microtransactions are studied more than others, and Author wanted to collect straightforward data about their usage popularity with help of a built survey. There were no other recent studies found about microtransaction usage percentage among active users, so a questionnaire was built in to gather information regarding that aspect.

## 1.1 Glossary

AAA	High budget game released by a mid or major-size publisher.
DLC	Downloadable content usually must be purchased and classified as a type of microtransaction.
EA	Electronic Arts, an American video game company.
Expansion pack	Extra content available to purchase in addition to the main game, not traditionally microtransaction.
Freemium	Free-to-play game which is heavily utilizing microtransactions.
MMORPG	A massively multiplayer online role-playing game.
P2W	Pay-to-win is one type of microtransaction model typically found in freemium or free-to-play mobile games.
RNG	Random numerous generators affecting reward chances in loot box form of microtransactions, not to be confused with RNG as a game mechanic.
Skin	Purely cosmetic microtransaction available to purchase

## 2 Research

The purpose of this thesis is to study the current trends in microtransactions, and more precisely their usage and popularity among active consumers of the video games industry. The thesis also takes a brief look at the nature of microtransactions and how they are affecting the video games industry. The study points out different types of microtransaction implementations and the legal aspects affecting them.

During the research process, qualitative data were collected in form of a questionnaire from the survey participants regarding to usage of microtransactions. Desk research was done to gather and study data through different materials available from various online sources including academic literature and online journal articles.

A questionnaire was used as a tool to gain additional data about microtransactions and their usage amongst consumers.

### Research questions

- Have microtransactions been regularized in the gaming industry, or are they a passing trend?
- Why have microtransactions grown so popular over the recent years?
- Should microtransactions be controlled more via laws and regulations?
- How popular are these microtransactions?

### 3 Nature of microtransactions

Microtransactions were born during the digital gaming era, where titles were available to purchase from numerous digital shops. These microtransactions were purchases made usually in-game shops, where customers spend specific amounts of real money to receive virtual goods in a game that the user has already purchased or acquired for free.

These virtual goods can include ways to progress faster in a game, or then be cosmetic goods or possible game affecting items such as stronger equipment or faster progress. These may provide an advantage over these users who usually avoid microtransactions or play less. Many of these games use loss aversion to encourage players to spend money. (Duverge 2016.)

Micropayments are found in the majority of free-to-play games, and many of them are so-called freemium titles but are also available in many game titles which utilize the traditional price tag model. EA is one of the companies that offer microtransactions in some of their full-price AAA games. FIFA is the most popular title generating close to 1 billion dollars per year thanks to the Ultimate Team game mode, which heavily uses microtransactions. (Beckwith 2021.)

Customers seem to be more positive about cosmetic items, as they do not offer advantages to buyers. Instead, they are altering the looks of a player character and giving more customization options available to customers. These are very commonly seen available in online multiplayer games.

There have been notable events of rage among customers because of the heavy use of microtransactions in published titles, notably Star Wars Battlefront II. EA currently holds an official Guinness-approved world record for the most downvoted post on social media platform Reddit regarding this customer outbreak. This all started with a player questioning why he paid \$80 for the game and still expected to be put

more money to unlock Darth Vader as a playable character. (Leskin 2019.) Based on the feedback, microtransactions were completely removed from being available for purchase in the game. (Travis 2017.) Figure 1 shows the EA's response to the mentioned post and the number of downvotes it managed to gather.

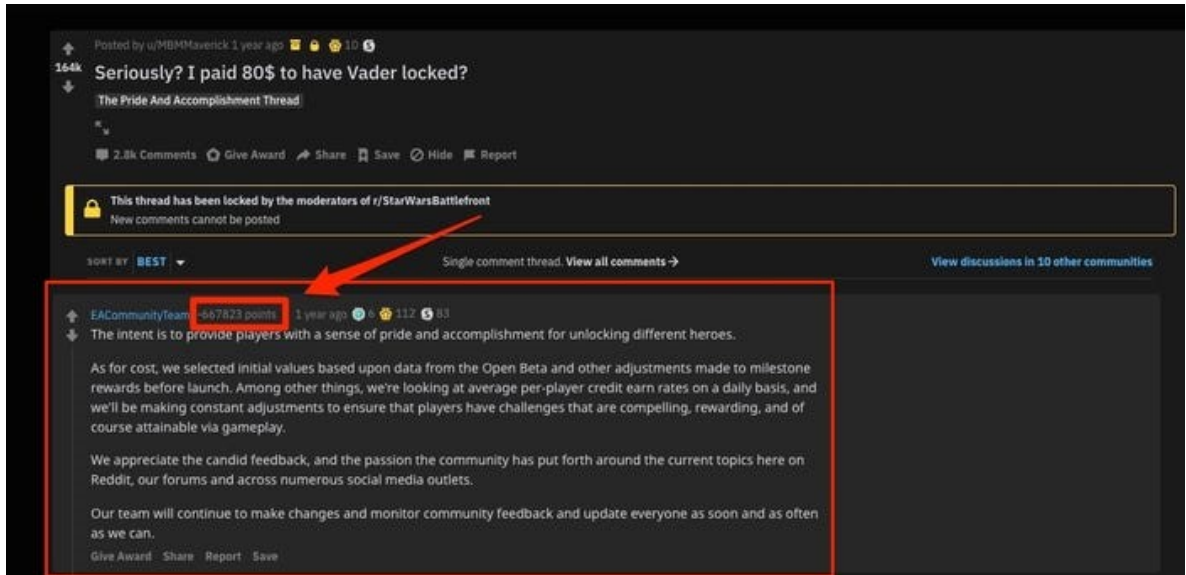


Figure 1. EA's comment about Star Wars Battlefront 2 set Guinness World Record for the most downvoted comment of all time. (Leskin 2019.)

There have also been lawsuits because of the regional laws. There is not much regulation yet for microtransactions and their usage except in a few countries. More of this in the chapter studying regional laws and restrictions.

In some games, users have reported that they have no chance to play competitively without using these payments. This makes the entire free-to-play concept inaccurate. In these cases players who open their wallets the most have the highest chance to win or compete compared to those users who do not want to pay for these features. If an item available can only be bought with real money and is better than the items you would normally get, it is defined as pay-to-win. (Vakhtangashvili 2020.) This model is called the P2W business model and is often disliked by consumers, as it eliminates most of the skill aspects from the competition.



### 3.1 History of games and microtransactions

Humans have been playing some forms of games since ancient times. The first gaming tools were made of bone, which has been found worldwide. (Koerper & Whitney-Desautels 1999.) Throughout history, humans have evolved gaming to a point including a wide variety of different card and board games, sports, role-playing, and video games. Video games have also made e-sports possible. These are currently a very mainstream form of (e-)sports and are actively spectated by fans to see top players compete against each other in various tournaments. During some of these tournament events, there have been records of millions of concurrent viewers. (Daniels 2021.)

However, the beginning of video games takes roots as far back as the year the 1950s, when the very first designs of simple games and simulations were studied. (Lambert 2008.) These first inventions were eventually implemented in arcade games, and during that time between the 1970s – 1980s video gaming managed to reach mainstream popularity. (Määttä 2019.)

One of the first commercially released games to gain interest was Pong, which was developed and published by Atari. It was released in 1972 as an arcade machine, and Atari sold a total of 35,000 of these pong arcade cabinets. The game was one of the first games to manage to gain public interest and was one of the first successfully published video games for customers. (Armas 2022.) The entire industry has been growing booming since video games were brought to consumers, and it has become the most profitable entertainment industry today. (Richter 2020.)

Technology has evolved, and eventually, video games have become available for people to play in their own homes. This was made possible by the introduction of consoles in the consumer market. Games were sold mostly as physical copies until the introduction of digital marketplaces. (Määttä, 2019.) At this moment the majority of sold games are digital editions. (Smith 2020.) Both physical and digitally downloaded copies of games represent the pay-to-play business model, where customers

simply pay a price to get the physical product or access to it. This model usually represents various monthly fee MMORPGs or licenses required to access. (Duverge, 2016.)

The latest trend in the video games industry is that modern consoles do not necessarily require purchasing games anymore, as cloud gaming services are growing in popularity and offer games available to stream on various platforms in return for a monthly fee. Here, games do not have to be downloaded to end-users machines but can be streamed over the internet.

This is made possible by technical advancements and public availability in connection types and their speeds. The downside of these streaming services is that the users are required to always have a connection to access games and are required to have an active subscription depending on the service. These services require very fast and stable internet connections to operate correctly.

The Internet has also made implementing microtransactions in games possible. Since the 90s more and more people could access online, and eventually people started downloading video game content online, as it was made possible by advanced connection speeds. Publishers started selling DLC to their games, and this is considered a precursor of microtransactions. Microtransactions firstly gained large-scale visibility back in 2006, when one of the major publishers Bethesda, published a new highly critically acclaimed game by critics and players, an RPG game called The Elder Scrolls IV: Oblivion on the gaming market. The game featured a type of DLC Horse Armor (Jones 2020.)

### 3.2 Microtransactions now

Since the introduction of microtransactions in video games, they have grown in popularity to this moment where they are to be found in a vast amount of newly released videogames currently on the market. At the time of thesis writing, 14/15 of Steam's most played games have some type of microtransactions available, whereas Elden Ring is the only game found on the mentioned list where are no microtransactions available for purchase. Stats were collected from SteamDB. SteamDB website is a public website that offers a database of various stats of Steam, a popular platform for PC players. The site has various stats available, including player count, most played games, and current sales taking place in the Steam store.






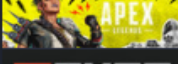








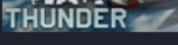
Most Played Games →		Players Now	Peak Today
	Counter-Strike: Global Offensive	713,859	859,106
	Dota 2	545,763	658,559
	Lost Ark	449,021	537,588
	ELDEN RING	440,549	614,155
	PUBG: BATTLEGROUNDS	201,460	492,352
	Apex Legends	164,823	297,529
	Rust	93,209	114,669
	Grand Theft Auto V	92,689	119,746
	Team Fortress 2	77,018	91,700
	Destiny 2	68,032	106,662
	Tom Clancy's Rainbow Six Siege	57,275	83,754
	FIFA 22	56,473	76,654
	MIR4	54,450	59,617
	Football Manager 2022	54,172	64,844
	War Thunder	52,209	62,396

Figure 2. Player counts of most played games (SteamDB 2022.)

Nine of the 15 listed currently most popular games are available free to play. All these free-to-play games offer microtransactions available for the customer to purchase.

Popularity and stats about microtransactions prove that companies have found this to be a very profitable business. These micropayments can include additional progress boost, which otherwise would require grinding a long time, numerous additional benefits, or just purely cosmetic items, skins. Some of the available microtransactions are sometimes linked to gambling, where the customer does not know exactly what they will get for the money they spent. This has caused new regulations and laws to be put into place in some countries to prevent gambling based on microtransactions. (Straub 2020). More about these laws and regulations are found in chapter 5.1.

Lately, many games have included so-called battle passes, where a customer pays the amount required to unlock the pass, and via unlocking it they gain access to additional rewards by playing. Battle passes are alternatives to loot boxes, and there is no gambling factor. (Davenport 2018.) Battle passes often include that the customer must play and achieve various goals and achievements to progress forward and level up the battle pass. By leveling it up, users can gain additional rewards which may not be available without paying. Often, these rewards include purely cosmetic skins, and they also may include progress boosts, which make reward steps progress faster. Sometimes these passes might have the option to buy levels to progress through these steps faster, or without actually playing the game to gain these rewards. One popular example would be the implementation of a battle pass in Dota 2, which was a way for the community to participate in funding the international reward pool for winners of the tournament. (Liquidpedia 2022.)

The International is the biggest yearly tournament for Dota 2 players. The total prize pool was over \$40,000,000 during The International 2021. This gigantic prize pool was partly possible thanks to microtransactions, as every purchase of a battle pass contributed 25% of the sales price to the total prize pool. All purchases made towards

the battle pass contributed to the total prize pool during the promotion period. (Liquidpedia 2022.) Figures 3 and 4 show how The International 2021 Prize pool was split between nationalities and the development of the tournament prize pool from the years 2011 – to 2021.

**Prize Money By Country**

1.		Russian Federation	\$12,045,460.00	7 Players	15.		Denmark	\$360,180.00	2 Players
2.		China	\$8,203,780.00	22 Players	16.		Pakistan	\$360,180.00	2 Players
3.		Ukraine	\$7,283,320.00	2 Players	17.		Thailand	\$360,180.00	2 Players
4.		Malaysia	\$2,161,000.00	4 Players	18.		Singapore	\$320,160.00	2 Players
5.		Sweden	\$1,200,560.00	4 Players	19.		Moldova, Republic of	\$280,120.00	1 Player
6.		Finland	\$920,420.00	2 Players	20.		Brazil	\$260,080.00	6 Players
7.		Philippines	\$880,440.00	5 Players	21.		France	\$200,100.00	1 Player
8.		Estonia	\$720,320.00	1 Player	22.		North Macedonia	\$200,100.00	1 Player
9.		Jordan	\$720,320.00	1 Player	23.		Bulgaria	\$160,080.00	1 Player
10.		Poland	\$720,320.00	1 Player	24.		Belarus	\$160,080.00	1 Player
11.		Peru	\$700,300.00	10 Players	25.		Israel	\$160,080.00	1 Player
12.		United States	\$480,240.00	3 Players	26.		Bolivia	\$120,060.00	1 Player
13.		Canada	\$400,200.00	3 Players	27.		Czech Republic	\$120,060.00	1 Player
14.		Indonesia	\$400,200.00	2 Players	28.		Korea, Republic of	\$120,060.00	1 Player

Figure 3. The International 2021 winnings divided by nationalities (Liquidpedia 2022.)

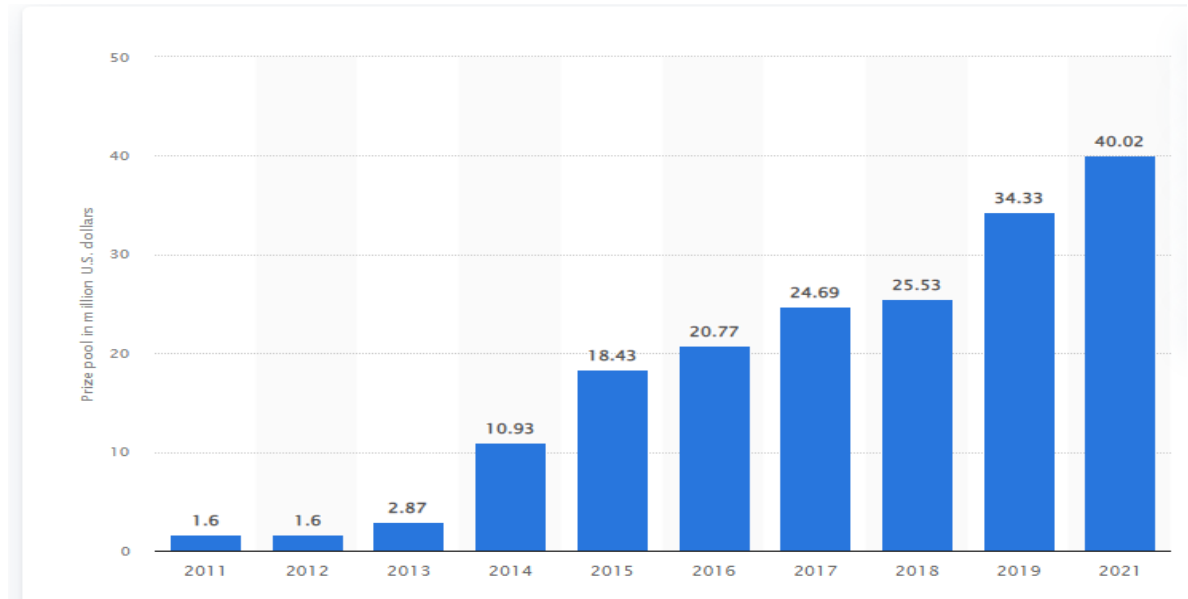


Figure 4. Development of The International tournament price pool from years 2011-2021 (Gough 2021.)

## 4 Types of microtransactions

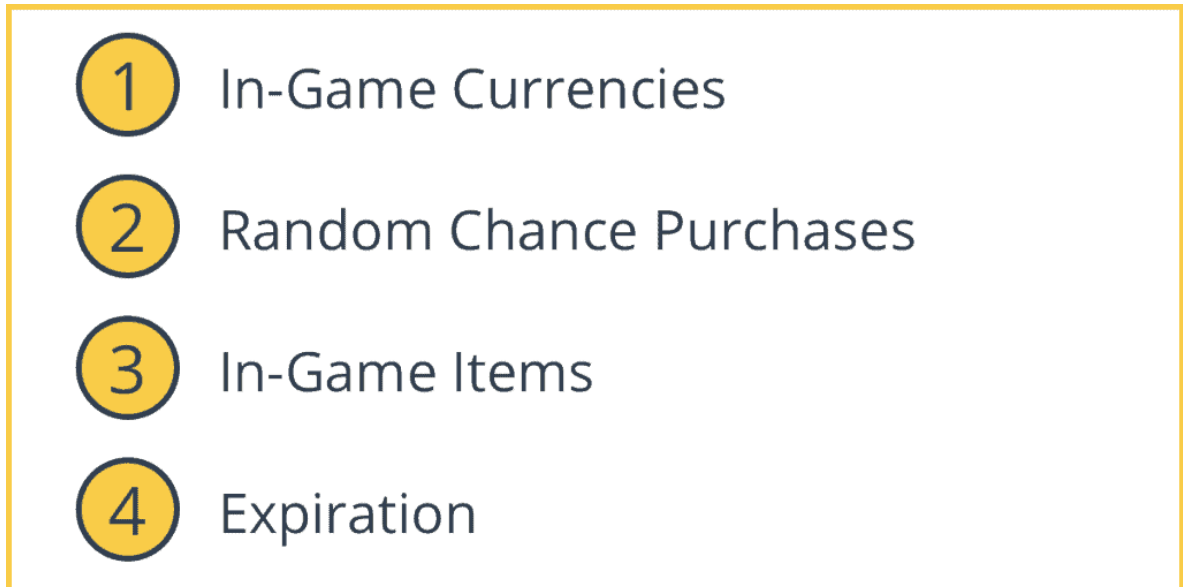


Figure 5. Tuoro University has divided these microtransactions into four types of main categories (Duverge 2016.)

**In-Game Currencies** are bought with real money. Games can use this to trick customers to hide the real value of purchases and make different size bundles of currencies seem like a better deal. (Duverge 2016.)

**Random Chance Purchases**, better known as loot boxes. Players may see items available in different boxes but cannot affect which of those items they are going to get. (Duverge 2016.) One of the biggest companies behind this is Valve, with its DOTA or CS loot boxes, where cosmetic items have a lot of real value, and they are sold commonly via third-party websites, outside Valves' own market. Some of the items available behind these boxes may have notably high value, meaning hundreds of thousands of dollars. (Kotwani 2021.) Opening these loot boxes has been linked to gambling in various studies. (Terveyden ja hyvinvoinnin laitos 2022.)

Hearthstone is one of the most common CCGs, where players have an option to buy digital booster packs. These booster packs are a form of loot box and are often considered as P2W as buying and opening these booster packs often offers the fastest possible way to progress forward. (Khonych 2019.) These booster packs typically include playing cards, which players can add to their collection and use to build decks to play with. Like in loot boxes, these digital booster pack rewards are fully determined by RNG and it cannot be determined beforehand how much money needs to be sunk to achieve desired outcomes. Cards are often varying in different qualities from common to legendary and therefore some of these cards have more value than others.

**In-Game** items can offer a wide range of different advantages varying between games. They can make the game easier, and these in-game items are often giving a clear advantage to players and encouraging players to pay more frequently. (Duverge 2016.)

**Expiration** is where some components may be available for a limited time. This can include various boosts or be linked to the durability of equipment, where a player must pay real currency to be able to progress faster or skip some components. If a player feels their experience is being cut short, they will be more likely to participate in buying these components. (Duverge 2016.)

This list does not cover subscription models of microtransactions, but in some cases which concern mostly MMORPGs, users can purchase game time or membership via in-game shops and currencies, but this could be considered under the expiration category or as in-game items in the author's opinion.

These are the main categories for currently implemented microtransactions, even when there are specific changes between games and publishers. Some games utilize premium currency, which must first be bought with real money before trading it for available microtransactions, whereas some games offer an option to buy straight from a game shop with bank details or credit cards.



In some cases, items are available to purchase only for a limited time. This is used as a psychological effect to trick a customer to think that if they do not purchase immediately, they might never see it available again. The term for this would be FOMO, fear of missing out. (Jarrad 2021.) Fortnite is one of the most common titles practicing this policy, as an item shop is refreshing every 24 hours, and items for sale are changing during this period. Human psychology is often studied when implementing a marketing strategy for microtransactions, and many free-to-play games are designed to include strong exploits of the human psychological systems. (Kokkonen 2014.)

## 5 Market overview

Currently, the video games industry holds the position as the most profitable entertainment industry. In 2019 video games generated over twice the amount of music and film industries together. Global revenue during 2019 from the video games industry amounted to 145 billion US dollars. (Richter 2020.)

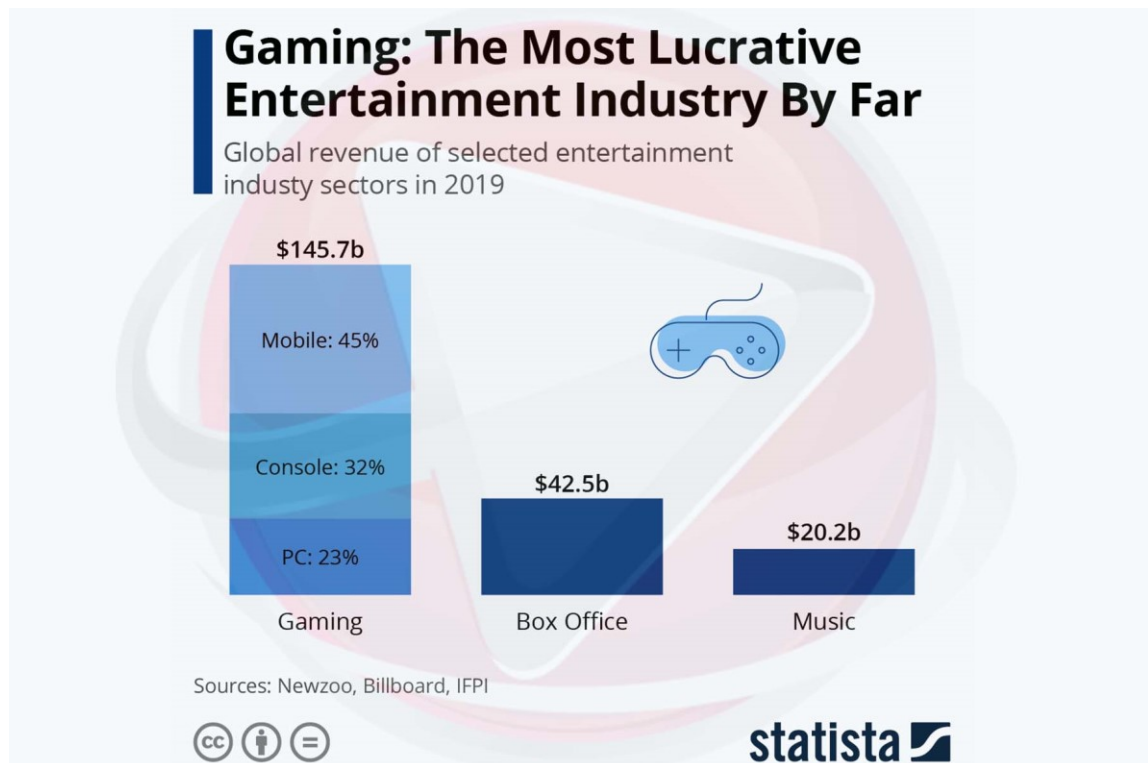


Figure 6. Video games generated over twice the amount as the music and film industries together in 2019 (Richter 2020.)

The development and public availability of smartphones have affected the growth of the industry a lot, and there are numerous popular freemium games available that utilize this type of pricing model on mobile games. On figure 7, there are shown mobile games which generated the most worldwide revenue between January and December 2021.

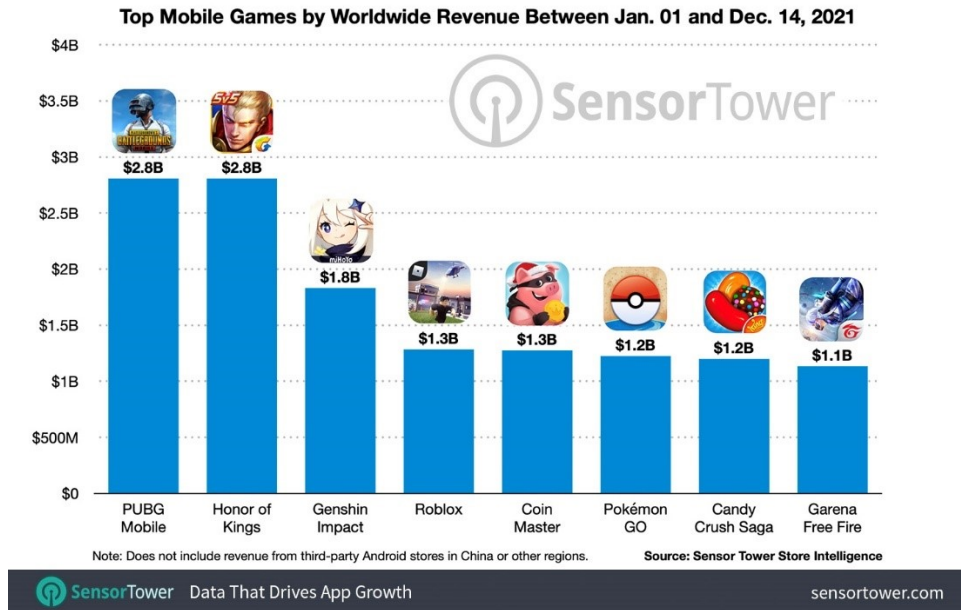


Figure 7. Some of the most popular mobile freemium games have surpassed 1 billion dollars in global player spending during 2021 (Chapple 2021.)

Smartphone games were generating most of the video game market revenue in 2021, surpassing over \$90 billion, leaving both consoles and PC behind. Smartphone games are accounting for 52% of the global gaming market during the measured period. (Allen 2022.) Today it is estimated that over 6 billion people own a smartphone. (Allen 2022.)

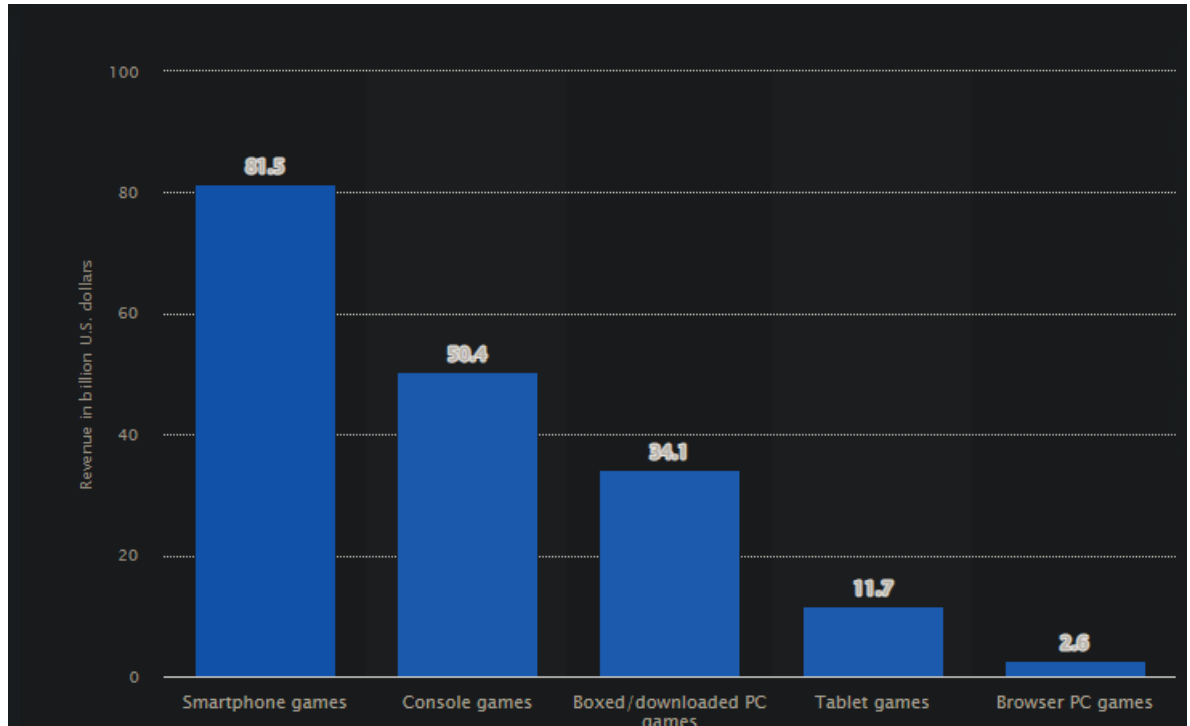


Figure 8. Video games global market revenue worldwide in 2022 (Clement 2022.)

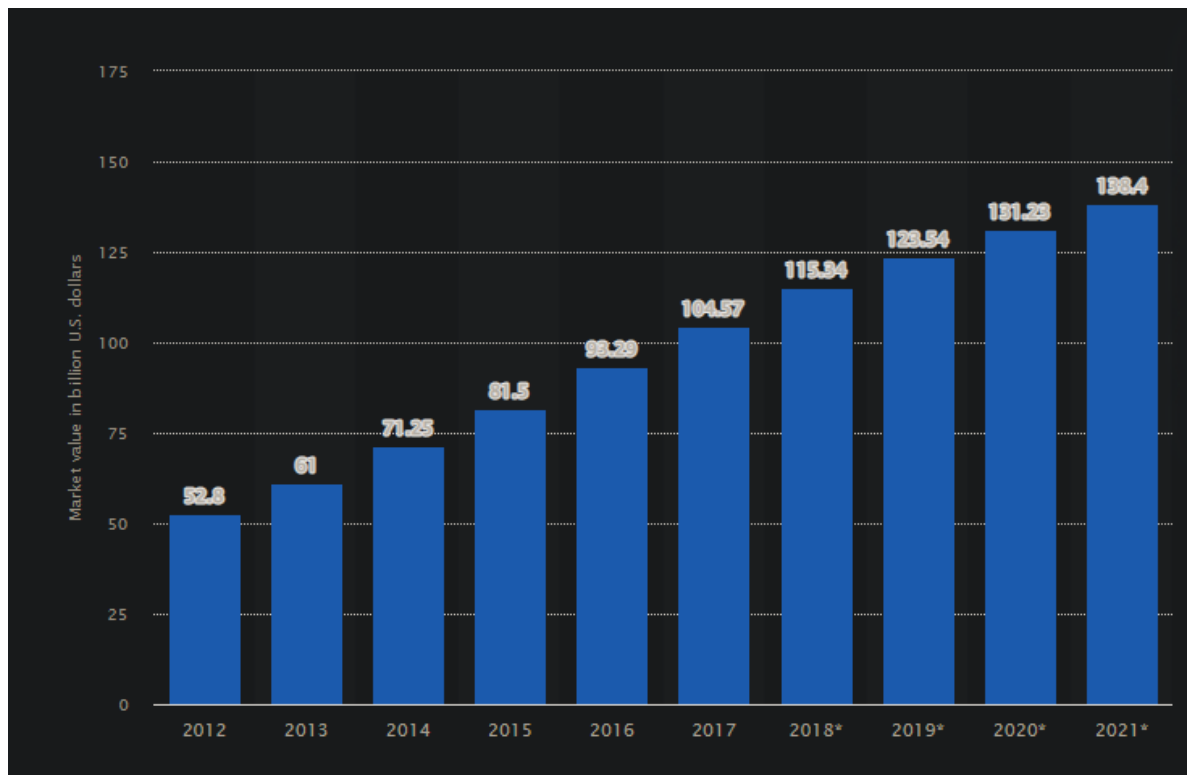


Figure 9. Value of the global video games market 2012 – 2021 (Clement 2021.)

In 2018, 83% of all video games sold were in digital formats. (Clement 2022.) Games bought digitally are available right away after payment for a customer but they need to be downloaded from the internet first to the user's device. Connection speeds affect how fast users can download these games to their machines and can start enjoying them.

In 2020, 91% of games were sold in digital formats. (Smith 2020.) Since the sales of digital games have risen massively, the newest consoles offer additionally digital-only editions, where the customer is not able to use physical copies anymore. All the games must be bought or downloaded digitally. These versions of consoles are cheaper to purchase for the customer than models with physical drives. (Leadbetter 2020.)

As internet connections have been improving dramatically due to 4G and 5G technologies, and within speed improvements downloading these digital titles has become much faster. This has been one of the reasons for the successes of the digital gaming era. Digital sales for video games will only grow, and the video game industry is quickly moving away from physical copies. (Smith 2020.)

### **5.1 Regulations of microtransactions**

Inside the EU, Belgium and Netherlands have already applied new regulations and laws to the place regarding these microtransactions. Many other countries are already planning to implement new regulations. Outside of the EU, China, Japan, and Australia are already regulating loot boxes as gambling. The United States and the United Kingdom are working on getting these regulations to take place. (Straub 2020.) These regulations may affect many different publishers, depending on the style of available microtransactions on their titles. This may lead to fines or even bans of sales in a region if publishers do not change the style of microtransactions

and monetization strategy. These bans could lead to specific titles being unavailable to purchase in regions that are controlled by these new laws. These laws mainly concern loot boxes.

These bans are to protect younger audiences from gambling activities. (Prager 2020.) Companies are working to bypass these regulations and find new possibilities to continue to receive profits via these microtransactions.

As some of these micro payments can be linked to gambling, some regions are understandably controlling operations inside their regions. Loot boxes are considered to be operating in many cases in the grey zone, as users would receive randomized rewards varying between rarities and values, and therefore loot boxes are commonly falling under this gambling side category of microtransactions. (THL 2022.) According to the BBC, it has been found that large numbers of children are opening these loot boxes. Of the 93% of children who are playing video games, up to 40% have bought and opened these boxes at some point. (BBC 2021.)

Companies are continuously finding new ways to continue implementing these payments to monetize their product, as microtransactions are generating huge parts of revenue. Some companies have dropped the gambling aspect away from these micro payments and removed or replaced them with different types of microtransactions, by removing loot boxes, or making these rewards available from loot boxes unable to be traded or sold forward to pass new regional regulations.

On the 1<sup>st</sup> of June 2022, Finnish Institute for Health and Welfare (THL) published news regarding microtransactions, and based on the results of multiple studies they are suggesting that regulations should be applied more regarding these microtransactions. Often buying these loot boxes is linked to gambling activities, and those activities should be separated from video games. Games are often marketed toward a young audience, and because the opening of loot boxes is more gambling than part of a game, should they be separated from games. Participating in buying these

loot boxes may alter individuals to try other gambling activities more likely later. (THL 2022.)

Basically some of these loot boxes could be considered illegal to sell in Finland. If there is a joining fee, randomized reward, and chance to profit, it fills characteristics of the lottery. Based on the Lotteries act (1047/2001), these kinds of activities require permission to act, which can only be granted by authorities controlled by the Finnish police department lottery administration. This act does not cover loot boxes if there is no chance to profit money by opening these boxes. This would require games to utilize strategy, whereas items received from loot boxes cannot be sold or traded afterward to apply national law requirements.

## 6 Questionnaire results

The questionnaire for this study was done via using SurveyMonkey as a platform. The questionnaire was sent to people whom the author knows to be familiar with gaming. The questionnaire was sent to about 80 people. The total number of participants answering the questionnaire was 44, making the answer rate for this survey about 55%. The average time for the questionnaire used per participant was about five minutes. The questionnaire was sent mostly to people living inside Finland, but a few of the responses were gathered from people living around the EU.

What seems surprising is that most of the gamers taking part in the questionnaire are buying these microtransactions. A total of 95.5% of respondents stated that some of the games they play include the possibility to buy microtransactions, and 90% have bought these microtransactions. Despite the limited amount of responses, this indicates the fact that many games utilize implemented microtransactions, and it is a certainly profitable strategy for companies monetizing their product and keep gaining profit after the initial game release.

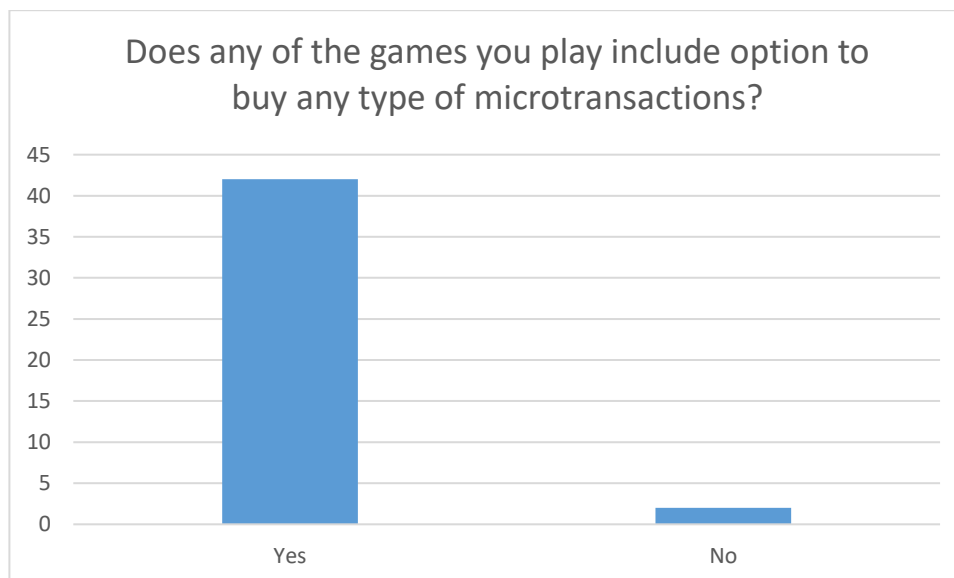


Figure 10. Results of question number 1



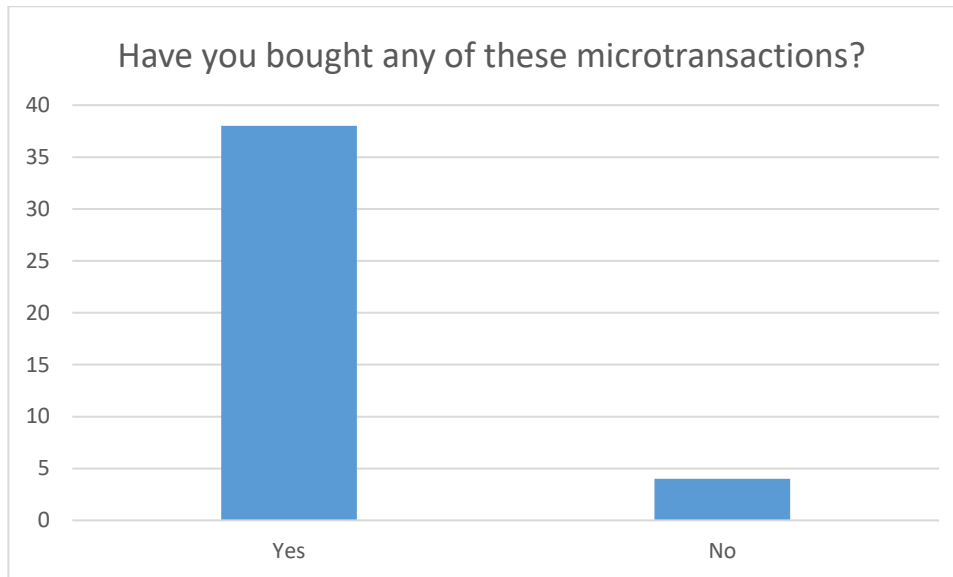


Figure 11. Results of question number 2

Based on the survey it also seems that PC and smartphones are the most popular platforms to play games on. This might be due to the popularity of phones and computers: people use them for work or school purposes in addition to gaming and billions of people have smartphones in use. Consoles continue to be popular and usually an easier way to get into gaming, compared to PCs. This is due price usually being less to buy a console compared to a gaming PC and being more simple, by having less hassle with installations. PC is heavily presented on results, but the author wants to note that he also consulted many of his Steam friends to gather answers for the questionnaire.

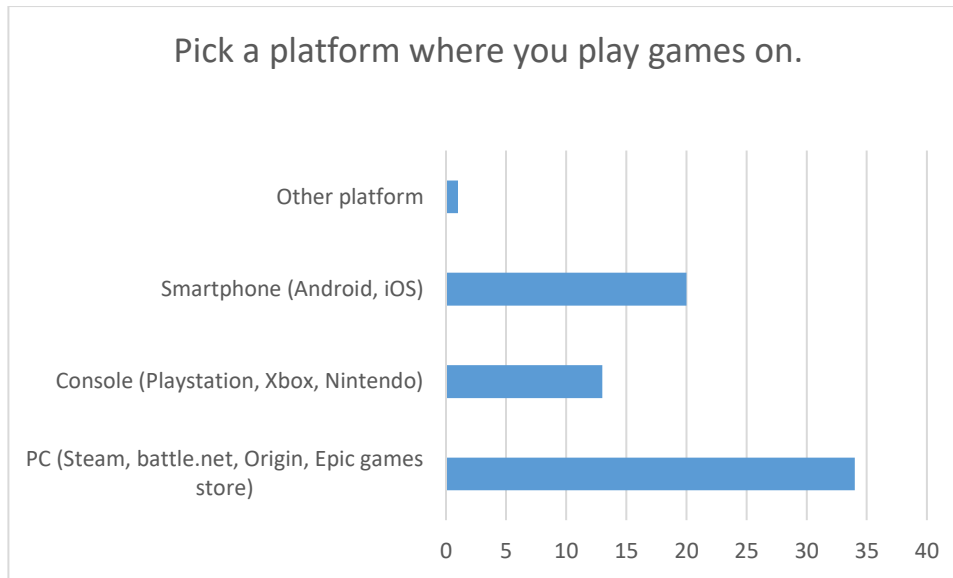


Figure 12. Results of question number 3

Cosmetic items and skins are very popular forms of microtransactions. Many users prefer this type of microtransaction as these do not affect gameplay despite changing the looks of a player's character. They may be purchased in form of battle passes, direct purchases from the in-game shop, or loot boxes. Loot boxes are questioned due to their gambling nature. Cosmetics and skins are heavily used in online multi-player games and free-to-play titles. Many free-to-play titles utilize the P2W strategy, which is often disliked way of microtransactions implementation. Those types of games almost require players to pay to gain a feeling of progress forward in-game. Games may otherwise feel incomplete and players may experience that they are not getting full experience unless they pay. 44% of answers stated that they are not willing to pay for gaining an advantage over other players. This form of microtransactions can turn into an endless money sinkhole, as you need to continually pay to keep yourself in a competitive position against other players.

DLCs are generally popular and accepted ways of implementing microtransactions, but EA's scandal with Star Wars Battlefront 2 proved that customers are not willing

to accept DLC “milking”. Still many AAA titles utilize this strategy, and in many cases, it feels content that should have been in the base game have locked behind a pay-wall. Many mobile games show in-game ads between gameplay, and often these games have purchase options to remove the advertisements.

MMORPGs often utilize a subscription-based pay model and have been using this model since the end of the 90s. This payment is part of the strategy, to cover the cost of running server services for thousands of daily players, and gain profit over it. MMORPGs utilize often many other types of microtransaction implementations too, ranging from cosmetic items to P2W.

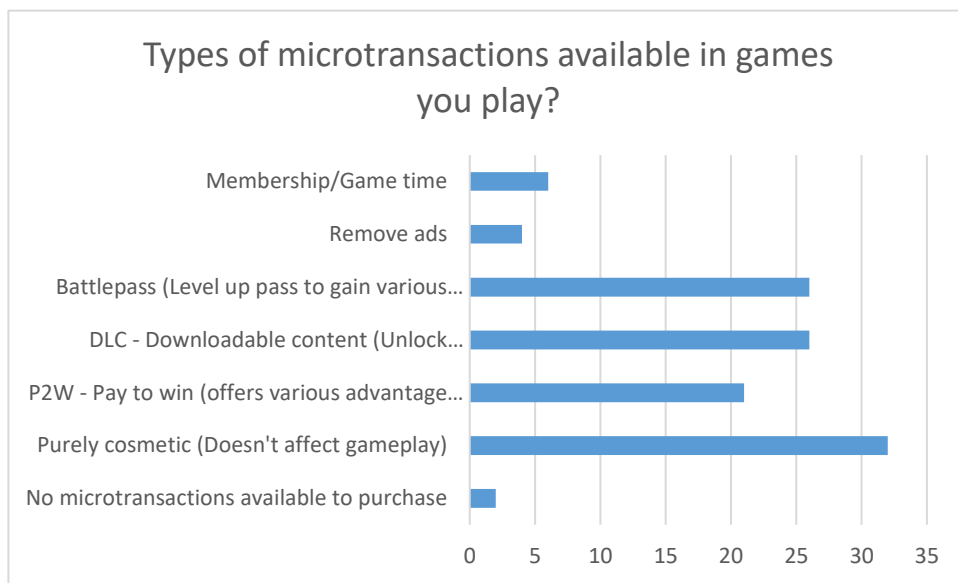


Figure 13. Results of question number 4

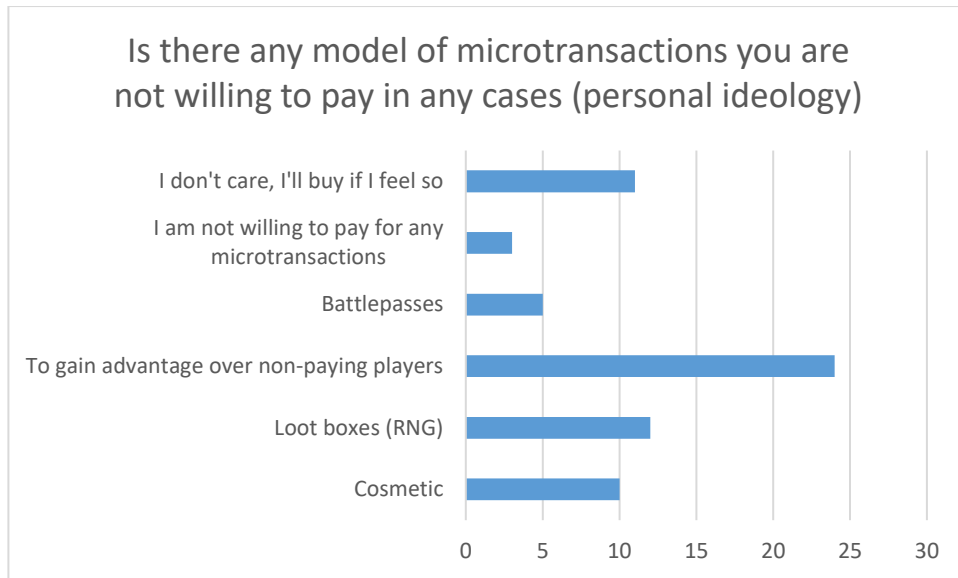


Figure 14. Results of question number 5

A most common form of microtransactions bought between answerers are items changing cosmetic looks, and DLC unlocks. These seem to be the generally most accepted form of microtransactions between consumers. Surprising is to see that behind reasons there is a desire to support development, which can indicate the fact that customers are willing to more likely contribute these purchases when microtransactions are implemented right in the product.

Despite various studies proving the link between microtransactions and gambling, the author is positive here to see that not many of the answers do not state straight away say that they have tried making a profit by intentionally gambling on these items.

People are generally disliking the implementation of the P2W model, and one comment stated "*P2W games I avoid*", suggesting that it can be also a reason not to start playing games that offer P2W elements.

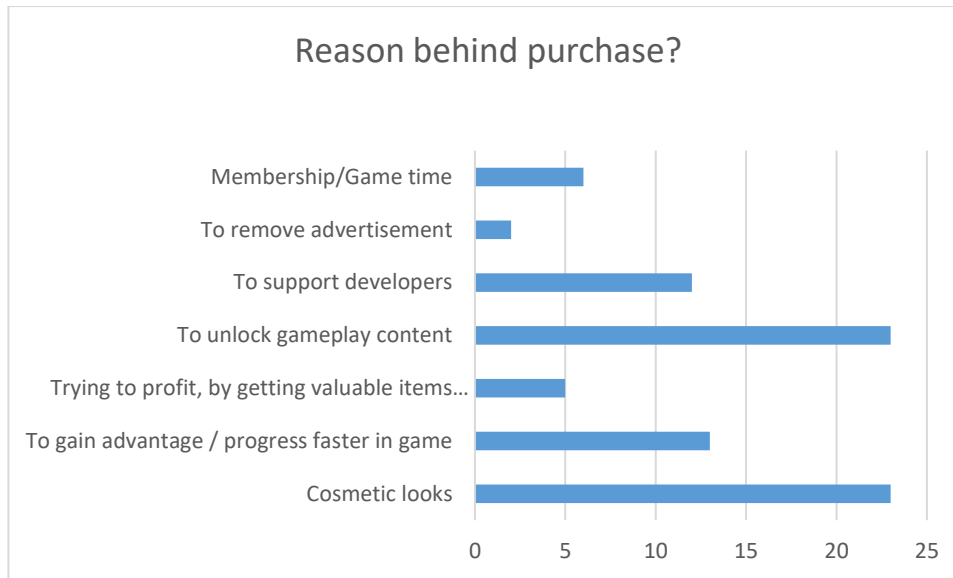


Figure 15. Results of question number 6

The next step was to figure out which games participants have spent money on. The most common ones seem to be hugely popular free-to-play games. This is not surprising, as these games tend to have a high variety of purchase options available.

Dota 2, Counter-Strike Global Offensive, League of Legends, PUBG: Battlegrounds, and Fortnite are all currently popular and highly spectated e-sport competitive games offering skins and other cosmetic items either via battle passes, loot boxes, or in-game shops. There may be additional microtransactions available for purchase like in Hearthstone, which primary business model is to sell card packs to customers. Buying these card packs can be labeled under the P2W category. Even these can be acquired by playing the game without paying, but then it will be just slower to complete the collection compared to buying and opening packs with real money.

These all titles mentioned have tournaments organized around their operation, having tournaments with prize pools ranging from thousands to millions organized. There are numerous sponsorships and advertisement contracts to cover the cost of organizing tournaments. Tournaments can be live-streamed over the internet or organized in a specific place to happen at. Viewers may join to spectate via various streams available, or possibly for the ticket to go to an organized event. The huge

popularity of these games makes the tournament side of business possible and profitable to organize, and an opportunity for sponsors and advertising to gain attention.

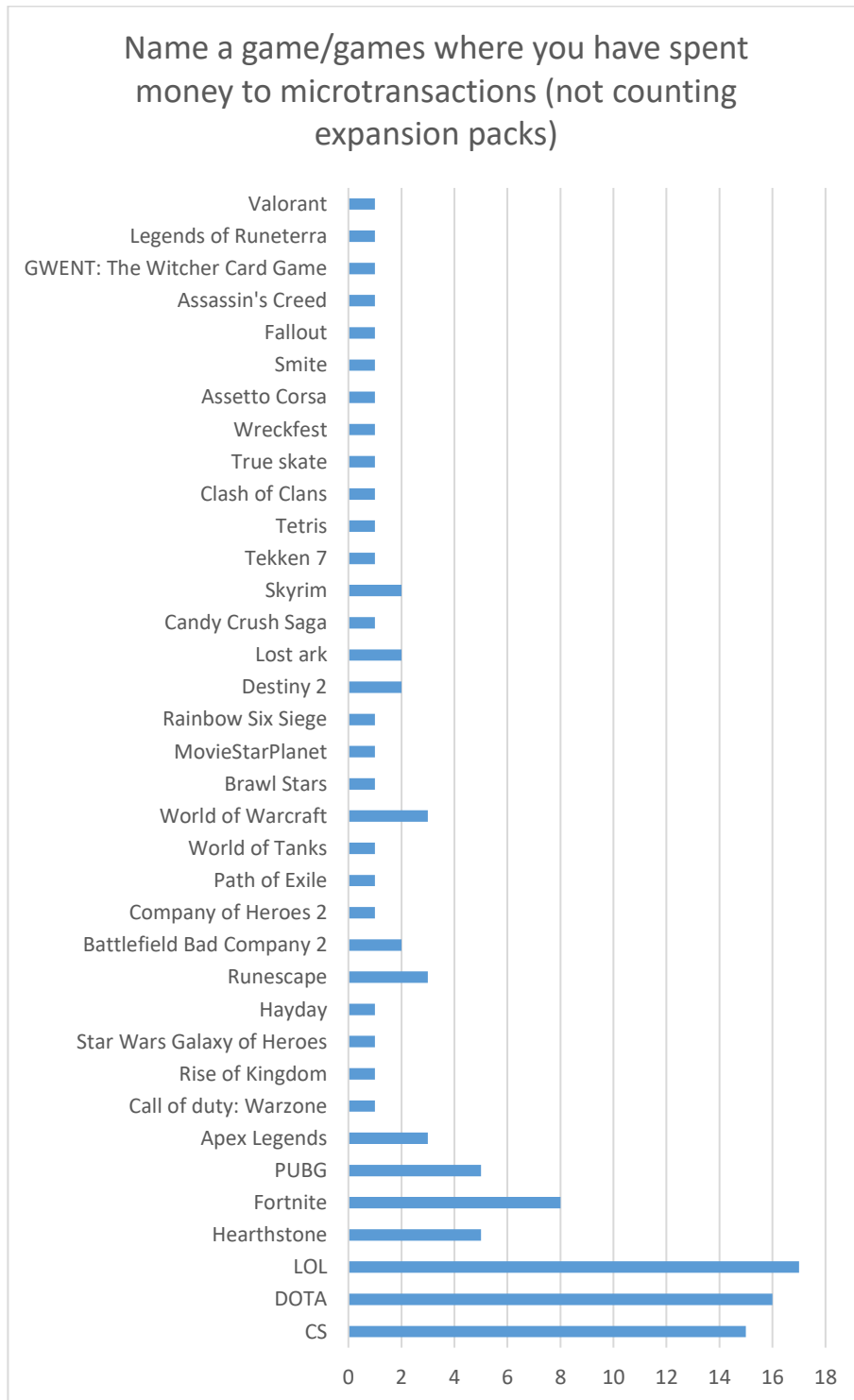


Figure 16. Results of question 7

When asking about people's spending habits, it is surprising to find that people tend to put hundreds of euros into game purchases. A few of the respondents stated that they had spent thousands of euros on microtransactions. However, 41% of respondents stated that they had spent at least 100€ on microtransactions. This proves that people who are utilizing these payments tend to buy more than just one available item or make purchases in various available games based on the answers figuring out estimated amounts spent for microtransactions.

It would be interesting to gain more information on a larger scale about money spending habits and gain more information about amounts of money spent on microtransaction to rely on making more assumptions about affecting factors to money usage.

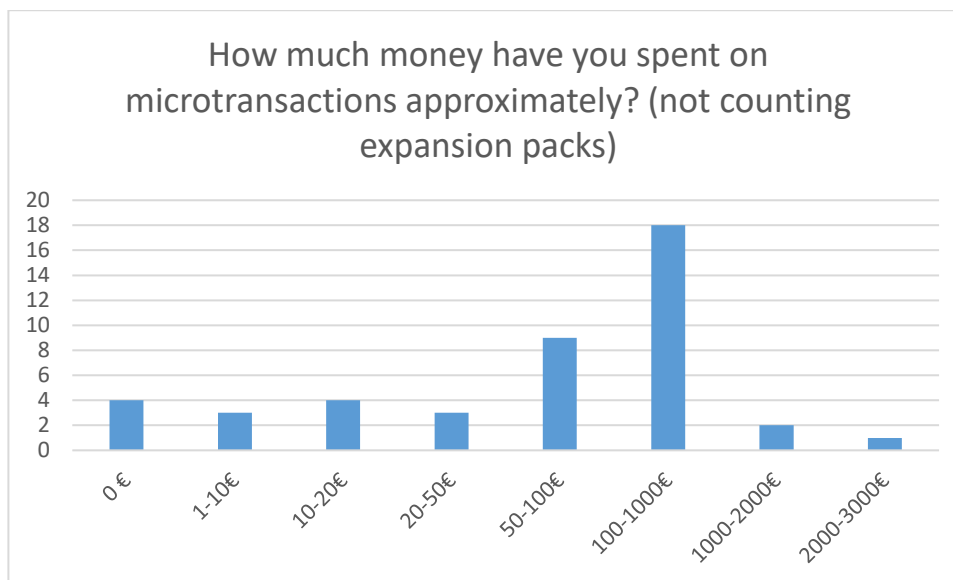


Figure 17. Results of question 8

Question number 9 was to find out if people are happy with their purchases or if they regret their money use later. As Figure 18 shows, 80% of respondents showed that they do not regret these purchases, but a few, 5 (12.5%), said that they regret these. This could be linked to heavy money usage, where players spend huge amounts of money on virtual goods and later regret those purchases.

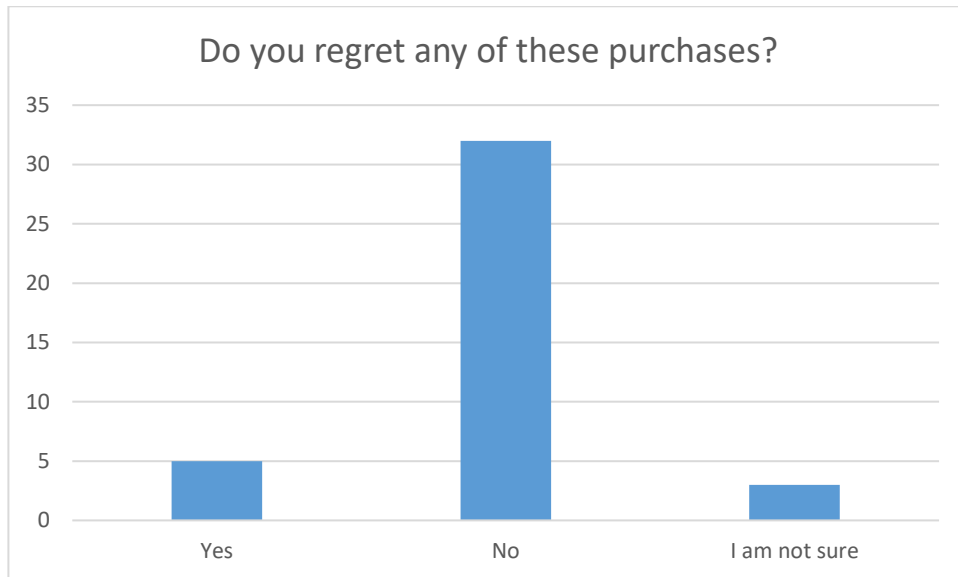


Figure 18. Results of question 9

Lastly, the author wanted to know if these purchases are somehow linked to gambling. Some items on virtual marketplaces have huge value, and people are trading these items for hundreds to thousands of euros. The question was: Have you made or tried making a profit via these microtransactions (gambling loot boxes for example?)

The vast majority answered that they have not tried making a profit off of these purchases, but a few of the respondents stated that they have made purchases to make more money. However, other studies are proving the fact there are possible connections between microtransactions and gambling.

In addition to this question, there was an extra question for answers that stated “yes”. This asked if they succeeded in gambling, and made more profit compared to the original purchase prices.

Notable comments for this question were “*No, all I got was trash.*”, “*no*”, and “*some valuable items but impossible to profit*”. This can be considered a suggesting factor



to the take should microtransactions be regulated more to be sure there are always fair chances offered to get value for your initial deposit in RNG-based forms.

There was only one answer which stated that *"I got 1 knife"*, which the author believes to be linked to Counter-Strike Global Offensive loot boxes, where knives are most rare, and one of the most expensive available rewards.



Figure 19. Results of question 10

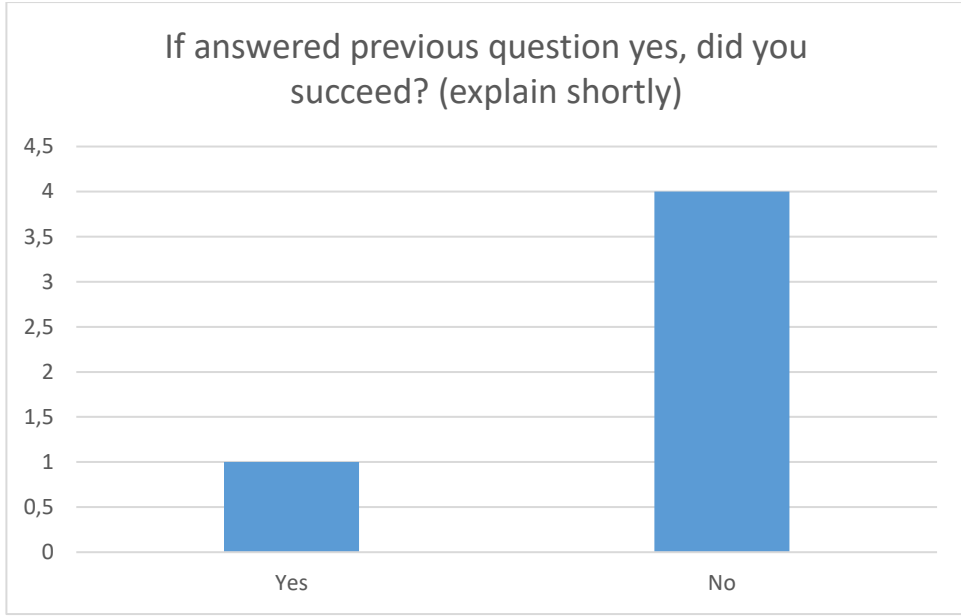


Figure 20. Results of question 10a

## 7 Conclusion

The purpose of the thesis was to find out the reasons behind the popularity of microtransactions and find out how popular they are for customers. Research is concluded from qualitative research in form of questionnaires and secondary data collected in form of desk research. After collecting and analyzing collected data, research questions stated at the beginning can be analyzed and answered.

Research question 1: Have microtransactions been regularized in the gaming industry, or are they a passing trend?

Based on the survey and the research, it is clear to say that microtransactions are here to stay. These payments are a part of the current video game era and are generally accepted by customers. There have been some famous incidents and customer unhappiness towards implemented microtransactions, but these have usually been changed by the publisher to overcome negative feedback. Some forms of microtransactions are generally not so accepted, and this is due to their P2W nature and gambling aspect.

Research question 2: Why microtransactions have grown so popular over recent years?

The development of the internet and implementation of online aspects in multiplayer video games have made microtransactions possible. As the majority of games are sold in digital format, microtransactions are easy to expect to be implemented, knowing that fact potential consumers should have access to the online store and therefore be more likely able and willing to make additional purchases.

The popularity of e-sport tournaments brings video games to massive audiences and many of these popular e-sport titles utilize microtransactions. There are many reasons behind their success, but they are accepted among consumers if they are implemented right. Customers are willing to participate in purchasing these if they feel that they get value for the money spent. Generally, cosmetics and skins are desired items to have and are often seen in-game by players during competitive matches.

Research question 3:       Should microtransactions be controlled more via laws and regulations?

In recent years microtransactions are started to be controlled more precisely. Some countries have already implemented laws to take place, and more countries are following behind to implement these law changes. These regulations are to prevent unfair operating on the market and protect youth from gambling activities. These regulations likely will be continuing to be more controlled by more nations in coming years. The author's take here is that some laws and regulations should take place, but not be too strict and needed to be implemented properly. Children should not be introduced to any form of gambling where the real money is included. Companies therefore should not be able to sell and promote gambling-related microtransactions to children, and they should not be exploiting problem users who might have problems with money use or gambling disorder.

Research question 4:       How popular are these microtransactions?

As numerous titles are generating billions of dollars per year, it is clearly a profitable way for companies to monetize their products, and there seems to be an ongoing trend of buying these microtransactions. There may be many reasons behind these purchases, but generally, customers are willing to pay extra when they feel that they get something in return for their money. Notable comments left by the respondents

stated that they *“felt like giving back to a game that is otherwise free-to-play. They deserved some cash from me, and the items were very cheap.”* and *“shut up and take my money”* representing a famous internet meme. This indicated the fact that when microtransactions are properly implemented and users feel getting value for the money they are more likely willing to participate in purchasing them.

The most common forms of microtransactions among consumers are cosmetic purchases, and gameplay content unlocks. These categories include all kinds of skins and cosmetical items for player characters, and DLC purchases to gain access to additional gameplay content.

## 8 References

- Allen, D. 2022. The mobile games market is making more money than PCs and consoles combined  
<https://www.androidpolice.com/the-mobile-games-market-is-making-more-money-than-pcs-and-consoles-combined/>  
 4.6.2022
- Armas, C. 2022. A look back at the popularity of Pong and rise of video games  
<https://uwm.edu/news/a-look-back-at-the-popularity-of-pong-and-rise-of-video-games/>  
 1.6.2022
- BBC. 2021. Loot boxes linked to problem gambling in new research  
<https://www.bbc.com/news/technology-56614281>  
 4.6.2022
- Beckwith, M. 2021. EA FIFA Ultimate Team made more than £1 billion in 12 months.  
<https://metro.co.uk/2021/05/28/ea-fifa-ultimate-team-made-more-than-1-billion-in-12-months-14667026/>  
 1.6.2022
- Chapple, C. 2021. Record-Breaking Eight Mobile Games Surpass \$1 Billion in Global Player Spending During 2021  
<https://sensortower.com/blog/billion-dollar-mobile-games-2021>  
 1.6.2022
- Clement, J. 2022. Digital and physical game sales in the U.S. 2009-2018, by format  
<https://www.statista.com/statistics/190225/digital-and-physical-game-sales-in-the-us-since-2009/>  
 2.6.2022
- Clement, J. 2021. Value of the global video games market from 2012 to 2021  
<https://www.statista.com/statistics/246888/value-of-the-global-video-game-market/>  
 1.6.2022
- Clement, J. 2022. Video game market revenue worldwide in 2022, by segment  
<https://www.statista.com/statistics/292751/mobile-gaming-revenue-worldwide-device/>  
 2.6.2022
- Daniels, T. Esports viewership breakdown with Esports Charts: October 2021  
<https://esportsinsider.com/2021/11/esports-viewership-breakdown-with-esports-charts-october-2021/>  
 2.6.2022
- Davenport, J. 2018. Battle passes are replacing loot boxes, but they're not necessarily a better deal  
<https://www.pcgamer.com/battle-passes-are-replacing-loot-boxes-but-theyre-not-necessarily-a-better-deal/>  
 3.6.2022

- Duverge, G. 2016. Insert More Coins: The Psychology Behind Microtransactions  
<https://www.tuw.edu/psychology/psychology-behind-microtransactions/>  
 1.6.2022
- Finlex. Lotteries Act 1047/2001
- Gough, C. 2021. DOTA 2 The International prize pool 2011-2021  
<https://www.statista.com/statistics/749033/dota-2-championships-prize-pool/>  
 4.6.2022
- Jarrad, A. 2021. Gaming Disorder and Microtransactions: Understanding the Cognitive Processes behind In-Game Purchases  
<https://digital.library.adelaide.edu.au/dspace/handle/2440/133209>  
 4.6.2022
- Jones, C. 2020. The Elder Scrolls 4: Oblivion's Horse Armor DLC Controversy Explained  
<https://screenrant.com/oblivion-horse-armor-dlc-controversy-explained/>  
 1.6.2022
- Khonych, A. 2019. Ethical and legal dimensions of microtransactions in video-games  
[https://www.theseus.fi/bitstream/handle/10024/262119/Khonych\\_Alena.pdf?sequence=2&isAllowed=y](https://www.theseus.fi/bitstream/handle/10024/262119/Khonych_Alena.pdf?sequence=2&isAllowed=y)  
 4.6.2022
- Koerper H, Whitney-Desautels N. 1999. Astragalus Bones: Artifacts Or Ecofacts?  
<http://www.pcas.org/vol35n23/3523koerper.pdf>  
 1.6.2022
- Kokkonen, T. 2014. MICROTRANSACTIONS IN AN ANDROID GAME  
[https://www.theseus.fi/bitstream/handle/10024/79254/Kokkonen\\_Teemu.pdf?sequence=1](https://www.theseus.fi/bitstream/handle/10024/79254/Kokkonen_Teemu.pdf?sequence=1)  
 5.6.2022
- Kotwani, B. 2021. The Most Expensive CSGO Skins in 2021  
<https://www.talkesport.com/news/csgo/most-expensive-csgo-skins-2021/>  
 1.6.2022
- Lambert, B. 2008. Brookhaven Honors a Pioneer Video Game  
[https://www.nytimes.com/2008/11/09/nyregion/long-island/09videoli.html?\\_r=2](https://www.nytimes.com/2008/11/09/nyregion/long-island/09videoli.html?_r=2)  
 1.6.2022
- Leadbetter R. 2020. In Theory: Can the PS5 Digital Edition deliver a cheaper next-gen console?  
<https://www.eurogamer.net/digitalfoundry-2020-can-ps5-digital-edition-deliver-a-discounted-console>  
 3.6.2022
- Leskin, P. 2019. EA's comment on a Reddit thread about 'Star Wars: Battlefront 2' set a Guinness World Record for the most downvoted comment of all time.  
<https://www.businessinsider.com/reddit-world-record-downvotes-ea-star-wars-battlefront-2-2019-9?r=US&IR=T>  
 1.6.2022

Liquidpedia

[https://liquipedia.net/dota2/The\\_International/2021](https://liquipedia.net/dota2/The_International/2021)

1.6.2022

Prager, J. 2020. Video Game Loot Boxes Lead To Youth Gambling Addiction, Says NHS

<https://screenrant.com/video-game-loot-boxes-youth-gambling-addiction-nhs/>

1.6.2022

Richter, F. 2020. Gaming: The Most Lucrative Entertainment Industry By Far

<https://www.statista.com/chart/22392/global-revenue-of-selected-entertainment-industry-sectors/>

4.6.2022

Smith N. 2020. 91% of 2020's Game Industry Revenue Was Digital

<https://gamerant.com/2020-game-industry-revenue-digital/>

2.6.2022

SteamDB

<https://steamdb.info/>

1.6.2022

Straub, N. 2020. Every Country With Laws Against Loot Boxes (& What The Rules Are)

<https://screenrant.com/lootbox-gambling-microtransactions-illegal-japan-china-belgium-netherlands/>

2.6.2022

Terveiden ja hyvinvoinnin laitos. 2022. Yllätyslaatikoiden eli loot boxien sääntelyä tulisi lisätä – yllätyslaatikot ovat raha- ja digipelaamisen välimaastossa.

<https://thl.fi/fi/-/yllatyslaatikoiden-eli-loot-boxien-saantelya-tulisi-lisata-yllatyslaatikot-ovat-raha-ja-digipelaamisen-valimaastossa>.

1.6.2022

Travis, B. 2017. Star Wars Battlefront II microtransactions removed after fan boycott

<https://www.standard.co.uk/tech/star-wars-battlefront-ii-microtransactions-removed-after-fan-boycott-a3693736.html>

1.6.2022

Vakhtangashvili, G. 2021. Understanding consumer experiences of inapp purchases in freemium model competitive mobile games.

[https://aaltodoc.aalto.fi/bitstream/handle/123456789/109099/master\\_Vakhtangashvili\\_Giorgi\\_2021.pdf?sequence=1&isAllowed=y](https://aaltodoc.aalto.fi/bitstream/handle/123456789/109099/master_Vakhtangashvili_Giorgi_2021.pdf?sequence=1&isAllowed=y)

1.6.2022



## Appendices

### Survey questions 1-3

1. Does any of the games you play include option to buy any type of microtransactions?

Yes

No

2. Have you bought any of these microtransactions?

Yes

No

3. Pick a platform where you play games on.

PC (Steam, battle.net, Origin, Epic games store)

Console (Playstation, Xbox, Nintendo)

Smartphone (Android, iOS)

Other platform

#### Survey question 4

4. Types of microtransactions available in games you play?

- No microtransactions available to purchase
- Purely cosmetic (Doesnt affect gameplay)
- P2W - Pay to win (offers various advantage to gameplay)
- DLC - Downloadable content (unlock gameplay content)
- Battlepass (Level up pass to gain various rewards)
- Membership/Game time
- Remove ads
- Other (explain shortly)

## Survey question 5

5. Is there any model of microtransactions you are not willing to pay in any cases? (personal ideology)

- Cosmetic
- Loot boxes (RNG)
- To gain advantage over non-paying players
- Battlepasses
- I am not willing to pay for any microtransactions
- I don't care, I'll buy if I feel so
- Others (Explain shortly)

## Survey question 6

6. Reason behind purchase?

- Cosmetic looks
- To gain advantage / progress faster in game
- Trying to profit, by getting valuable items and trading them to get real money
- To unlock gameplay content
- To support developers
- To remove advertisement
- Membership / Game time
- Other reason (Explain shortly)

## Survey question 7

7. Name a game/games where you have spent money to microtransactions (not counting expansion packs)

CS

DOTA

LOL

Hearthstone

Fortnite

PUBG

Apex Legends

Other games, please name one or more

## Survey questions 8-9

8. How much money have you spent on microtransactions approximately? (not counting expansion packs)

- 0
- 1 - 10
- 10 - 20
- 20 - 50
- 50 - 100
- 100 - 1000
- Other amount, evaluate amount

9. Do you regret any of these purchases?

- Yes
- No
- I am not sure

## Survey question 10 + extra evaluation

10. Have you made or tried making profit via these microtransactions? (gambling loot boxes for example)

Yes

No

If answered yes, did you succeed? (explain shortly)