Leftover premium currency in video games

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Abstract

Monetization of video games has become mostly digital during the last decade. Digitalization paved way for new types of monetization methods. One of the most used and talked about methods is microtransactions within video games. Video game companies have shown how creative video game companies are with their ways to implement new ways to use microtransactions. One of those ways is premium currencies within video games. Premium currency has become a main stay within video games to be used as a monetization model. A worrying trend called leftover premium currency was put under microscope in the study.

Purpose of the study was to provide understanding of how premium currency is used withing video games, does premium currency have effects on the buying decision and provide ideas to companies how to tackle the leftover currency. To achieve this literature review and empirical study was conducted.

Mixed methods were used to gather data for the study. A quantitative survey was conducted to get a view on how 86 players feel about leftover currency. A literature review and in-depth review of various video games were conducted to get a base understanding of how microtransactions are used within video games.

Based on the findings, it was clear that players dislike premium currencies in video games and would much rather use direct purchase option when buying in-game premium items. Recommendations for further studies were given in the study, also video game companies were given instructions how they could use in-house data to improve negative effects on buying decision due to leftover premium currency

Keywords/tags (subjects)

Video games, in-game monetization, premium currency, effects on buying decision, leftover premium currency

Miscellaneous (Confidential information)

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1 Introduction

1.1 Background

World is getting more digital daily and one thing that is affected greatly is video games. Video games has evolved from one machine having one game to you able to have hundreds of games in your digital library. Just like amount of the platforms and games created over the years also the growing amount of monetization methods have been introduced. With this video games have been moving off the traditional revenue model of buying physical copies to online purchases, increasing marketization of play, particularly focusing on the intrusion of microtransactions into gaming experiences (Almaguer, 2019). The five main digital monetization models are digital distribution, subscription, player to player trading, microtransactions, in-game advertising.

As microtransactions are being used more and more as a main monetization tool by gaming companies for their games also more types of microtransactions arise. One of the oldest and most used microtransaction model is premium in-game currencies which will be further studied in this study. Understanding the intricacies of in-game currencies is essential for optimizing monetization strategies, designing effective in-game economies, and creating compelling player experiences (Asadi & Hemadi, 2022).

1.2 Structure & Research questions

The thesis is divided into five main parts, which are all extended with subchapters. Five main parts are the following: Introduction, Methodology, literature review, Results and Conclusion.

Thesis starts with Introduction, which gives an insight what is to come for a reader. Methodology portion gives a view of skeleton of the study to the reader. Through literature review trends are searched and identified, going from the broad view to the niches of the subject. With literature review there is a theoretical background portion added to define the meaning of “Leftover premium currency” due to no sufficient information available at the time of the study and survey. Conclusion section is the last portion of the study, from there reader can find discussion on the findings of the study, critique of the conducted study and recommendations for further studies.

The research problem is: Leftover currency and the implementation of it.

To answer the research problem author has divided it to three questions and those research questions are the following:

Research question 1: What is the purpose and role of premium currencies?

Research question 2: Does leftover currency affect the buying decision of in-game premium currency?

Research question 3: How could and/or should gaming companies be using leftover currency in their business models?

1.3 Motivation & Purpose of the study

This subchapter delves into the motivation and purpose of the study. Authors lifelong interests in video games and the industry behind it steered the investigation into the subject of study towards video games. The niche subject leftover premium currency in video games was found due to author having firsthand experience with it and there not being any academic research work on the subject. Author has had negative effects on the buying decision when leftover currency had occurred, sparking the interest in pursuing to study the effects leftover currency has on the buying decision. To conduct a study on the subject it was needed to have a understanding of current situation of in-game monetization method premium currency and how generally things have an effect on buying decision.

Since there were no academic studies previously conducted about leftover currency in video games and the study being a bachelor's level, having data on leftover currency and does leftover currency have any effect on the buying decision was seen as the best option. This way base data can be acquired, and true level of the need for future research can be seen.

2 Literature review

This chapter provides information and understanding on Digital video game monetization, effects on buying decision, microtransactions, premium currency in video games and a theoretical portion of leftover premium currency in video games.

2.1 Digital video game monetization

There is a relatively small body of academic text that is concerned with digital video game monetization and its subsections. It is to be expected that some of the sources the study refers to are not academic writing. Video game monetization has been classified into six primary monetization models which are the following: retail, digital distribution, subscription, player to player trading, microtransactions, in-game advertising. (Olsson & Sidenblom, 2010, 20-23). Five of these main video game monetization models are digital: digital distribution, subscription, player to player trading, microtransactions, in-game advertising. (Olsson & Sidenblom, 2010, 20-23). With these five models' businesses can deliver their desired product and/or service to customer digitally. Video game companies usually use more than one model of monetization (Golynchev, 2019, 21). Digital monetization models becoming the norm has also been a positive impact to the video game companies. Digital distribution of the content is much more cost effective when compared to the physical distribution (Golynchev, 2019, 26). Digital distribution is done via software platforms such as Valve's Steam, EA's Origin or Activision-Blizzard's Battle.net (Majander, 2019, 6). On the console market distribution is done by creator company of the product, for example Microsoft's Xbox has its own digital marketplace on the Xbox console and PC.

2.1.1 Microtransactions

Microtransactions are a type of video game monetization model where a player can purchase in game virtual items in exchange of real money. Microtransactions have become one of the major monetization models in video games, even to the point where the game designs are molded around the microtransactions model (Petrovskaya, Deterning & Zendle, 2022, 2). The concept of microtransactions is relatively new thing due to the further digitalization of the marketplaces over the last decade (Golynchev, 2019, 24). First major video game title including microtransactions would be Bethesda's Elder Scrolls IV in 2006 (Mansoor, 2023). Microtransactions have become a major monetization method for gaming companies, with many companies solely relying on microtransactions as their method of choice. In 2020, according to EA's financial report, 29% of the whole company's revenue came from a single game, FIFA ultimate team with revenue from the game being $1.62 billion (Lang, 2021).

Microtransactions can also be referred as in-game purchases (Latvala, 2019, 6). As Evers, van de Ven & Weeda (2015, 20), points out that “Microtransactions are usually low-cost expansions for existing games”. It is highly recommended that reader approaches the term “micro” in relation to microtransactions with a certain level of caution. Prices of microtransactions can go as high as hundreds of dollars, for example in Apex Legends needs to spend 170$ to finish a set of limited time virtual skins. (Allsop, 2023). More important is to focus on the concept rather than the price range.

Microtransactions includes subsections like premium currency, various timed passes, in-game items, and random chance items which can also be called loot boxes (Almaguer, 2018, 7-8). Out of the subsections, premium currency is the one in which the study focuses on. Microtransactions are often associated with it being predatory monetization method due to loot boxes, raising questions over the ethicality of loot boxes and even to the point of being regulated in multiple countries around the world (Petrovskaya, Deterning & Zendle, 2022, 2).

2.2 Premium currency

Premium currencies are a currency inside a video game that can be bought with real world money (Chernyak, 2014). Premium currency can also be referred as virtual money which is controlled by its developer (Tomić, 2018, 20). By utilizing premium currency, a player is enabled to purchase various virtual products. The virtual products that can be bought with premium currency are determined by the developer of each game that has decided to have premium currency in revenue model. “Virtual currency is a type of unregulated, digital money, which is issued and usually controlled by its developers, and is used and accepted among members of a specific virtual community “(Asadi & Hemadi, 2022, 3). According to Asadi & Hemadi (2022, 3) premium currency can be put in to 3 categories, these categories are the following: Closed virtual currency, Virtual currency with unidirectional flow and virtual currency with bidirectional flow. This study focuses on virtual currency with unidirectional flow. This is because closed virtual currency cannot be bought with real money, and unidirectional currency is still rare to see and acts differently due to unidirectional flow (Asadi & Hemadi 2022, 3).

There is extensive range of virtual products which developers can utilize, including but not limited to playable characters, character skins, boosters, map additions, battle pass and even loading screen pictures, these will be shown more in-depths in the 2.2.1. Tomić (2018, 19-20) states that, there is a wide variety of purchases available in games these days premium currency can be used as a intermediary to create uninterrupted purchase process and push the feeling of spending real world money as far away as possible**.** Premium currency is not exchangeable to real world currency. In some rare occasions like in the game Warframe by Digital Extremes player can exchange the premium currency with other players to acquire goods, meaning that the buying power of premium currency is not limited to in-game store items but also items that players have earned by playing (Burgar, 2021). Usually loot boxes are the talking point when it comes to regulation and ethicality, as loot boxes have been already banned in Belgium (Gerken, 2018). However, premium currency does not come under critique in the same light as loot boxes come even though there is a worrying trend on how companies use premium currency, the chapter 2.2.2 talks about the trend more in depth.

2.2.1 Premium currencies and virtual products in video games

In this subchapter, implementation of premium currencies and virtual products by video game companies are discussed and shown. 2 of the games discussed in this subchapter were researched during December 2023 except for Apex Legends and Valorant which were researched in 2020.

Call of duty: Modern Warfare 3 published by Activision. Call of Duty's premium currency is called "Cod Points", Cod Points can be spent in Activision's Call of Duty HQ in-game store. These points come in packages that range between 200 points for 1.99€ to 21000 points for 149.99€, see Figure 1. There is a good amount of variety with the packages available in Call of Duty, points being available for low as 1.99€ per one time transaction.

Figure 1 Cod Points (Call of Duty HQ, Activision, 2023)

All of the items come in packages with the exception of battlepass and its tier skips. Virtual item packages range from 1000 to 2800 points, the most expensive one is not found in the Figure 1, but other examples can be found, see Figure 2. For the 1000-point package most viable option would be 1100 Cod Point package, however there would be 100 points worth of leftover currency. As for the Virtual item package that costs 2800-Cod Points, most viable option is to buy 2400-point package for 19.99€ and 2 200-point packages for 19.99€ each, Totaling to 24€. When buying the most expensive package there would beno leftover currency. However, it is possible that one might forget that they can buy multiple packages or and op-in for the next closest one package which is 49.99€, which is over double the price. Also it is possible that player feels like it is inconvenient to buy multiple packs and opts-in for the higher priced one. Battlepass costs 950 Cod points, meaning that the most viable points package is 1100-points for 9.99€. Battlepass level skip costs 150 Cod Points, meaning that the most viable option for it is 200 points for 1.99€. In 3 out of 4 of the example's player would have to buy more points than is needed for the Virtual item package. In-game store isn't as flexible as the available Cod Points packages, this could be creating a illusion when buying points one might think that there is items available for various price points for even low as few hundred points. It is good to mention that Call of Duty is also a full priced AAA game, meanwhile other observed games are Free to Play.

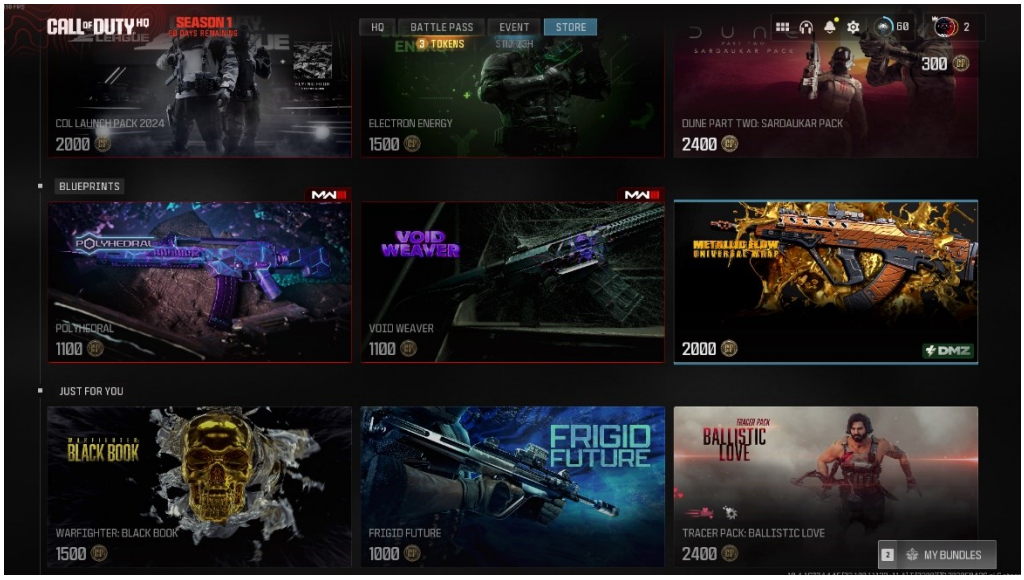


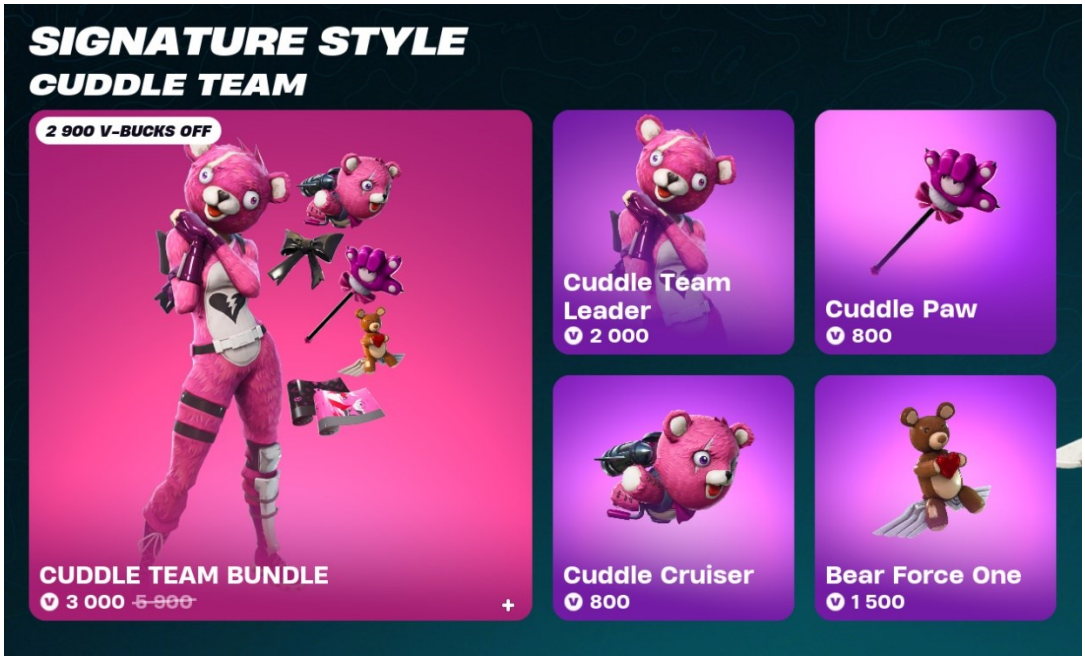
Figure 2 Call of Duty in-game store (Call of Duty HQ, Activision, 2023)

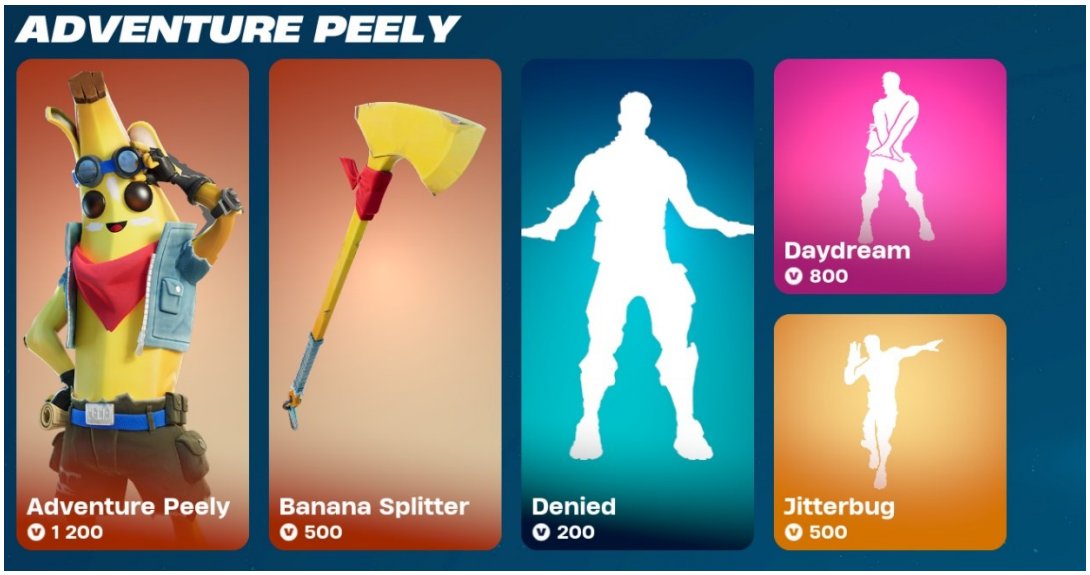
Fortnite published by Epic Games. Fortnite's premium currency is called "V-Bucks", V-Bucks can be spent on various cosmetical items available in the in-game store. V-Bucks come in at 4 different price points, 8.99€ for 1000, 22.99€ for 2800, 36.99 for 5000 and 89.99€ for 13500 V-Bucks, see Figure 3.

Figure 3 V-Bucks (Fortnite, Epic Games, 2023)

With there being only 4 packages at drastically different price points, V-Bucks system isn't as flexible as Call of Duty when it comes to available price points. Fortnite's in-game store items are all cosmetic and are available at various price points. Fortnite's in-game store item prices start at 200 V-Bucks and go up to 5900 V-Bucks, see Figure 4 and Figure 5. Lowest priced item costing about

1.8€, except the lowest priced package available is 8.99€. Theoretically this would mean that player would need spend extra 7€ to get the item. As for the highest priced item, player needs to buy a 5000 V-Buck and 1000 V-Buck costing 46€. In Fortnite, the shop has been made convenient for the players offering a wide range of items from Emotes (see Figure 5) to big bundles of virtual items (see Figure 4), with most of the items being somewhat affordable. There is however a big problem, due to Fortnite offering only 4 different types of V-Buck sets player has to often spend more than desired when buying items from the in-game store. This could result into player having leftover currency that is not enough to buy anything, or leftover currency that player didn't really want to get due wanting a specific item.





Valorant published by Riot Games. Examples for Valorant can be found in the Figure 9 and Figure 10. Valorant was used as an example in the survey.

Apex Legends published by EA Games. Examples for Apex Legends can be found in Figure 12, 13, 14 and 15. Apex Legends was used as an example in the survey.

All of the 4 games used premium currency in a way that player is required to buy more than needed amount of premium currency, it is important to mention that this does not occur on every purchase.

2.3 Leftover currency

Leftover currency is a niche subject on which resources are scarce, however it has been briefly mentioned atleast once in a academic study. In their study Majander (2019, 20-21) states the following," Points are commonly also sold in amounts that result in some amount of points being left over after typical purchases, encouraging the user to purchase more points to be able to "cash out" the value of the surplus points". With little no talk about the subject there is not a set definition for the concept in which the study could refer to. Closest real-world example would be foreign currency which one might have left after a trip, but that currency can be exchanged unlike the leftover currency in video games which is a important talking point in this study. Following games were observed for the pricing of premium currency and prices of the virtual items player can buy: Valorant (Riot Games), Fortnite (Epic Games), Apex Legends (EA Games) and Call of duty Warzone (Activision) to get an idea for possible situations, examples for these can be found in 2.2.1 Premium currencies and virtual products in video games and 4 Results. Examples from video games Apex Legends and Valorant, were used when creating the survey to show participants possibly familiar situations.

In this study leftover currency is defined as it follows:

Amount of premium currency in a video game that is left after intended purchase and is not

enough to purchase anything else in the game and/or is enough but is something that the player deems unnecessary.

Theoretical example:

Player wants a battlepass, that costs 950 points in a game. Game offers points in packs of, 500, 1000, 2000, 3000, 10000. Player wants only the battlepass.

Player buys 1000 points for a video game with 10 euros, then player spends 950 on a battlepass. Player will have 50 points left. Cheapest item at this case in game is 300 points, player only has 50 points leftover thus player cannot afford anything in the in game store. This can be called leftover currency.

In this example that 50 points would be equal to 0.50 euros.

2.4 Effects on buying decision in video games

Microtransactions going from 2006 The Elder Scrolls IV: Oblivion horse armor costing 2.50$ (Golynchev, 2019, 29) to Apex legends character costume costing 18$ in 2019 (Jackson, 2019) to loot boxes in video games causing even more talk around the world, even ending up being declared illegal in Belgium (Gerken, 2018). One could already tell that the number of things that have effect on buying decision withing video games in both negative and positive has reached new heights.

Buying is a process, if there is a disturbance in the process it may change the purchase intention or even cancel the purchase process (Munthiu, 2009, 30). In some cases where the purchase has been made but it falls short of expectations this can lead to not repeating similar kinds of purchases (Munthiu, 2009, 30). This could be applied to premium currency and specifically leftover currency. Usually, leftover currency is seen after the purchase of the virtual item, due to player being focused on the items rather than the math behind the currency. At first one might be happy that there are points leftover, but the realization that the amount left is not enough to acquire anything without buying more premium currency could be off putting for some. A study by Riekki sums it up perfectly, “Players are most often satisfied about their purchases and those that are

not, will likely not develop into long-term core gamers" (Riekki 2016, 19).

Implementation of microtransactions to video games at times is done after publishing the game, meaning that there is a possibility that microtransactions are not built into the core gameplay which could have disastrous effects. It is possible that microtransactions fundamentally change the nature of the game due to adding them later in the game's life cycle, possibly even influencing whether the player base even wants to play the game anymore (Neely, 2018, 9). If a design choice is as destructive as making players quit the game, it directly has an effect on buying decision. Player might still opt-in to playing the game due to the liking of core gameplay but does not want to spend money on the game anymore if the player deems not fitting to the game or even unethical. As Munthiu (2009, 30) wrote about the disturbances in buying process, one could say that implementing microtransactions in a way which it was previously mentioned could be called disturbance in the buying process, directly having an effect on buying decision.

3 Methodology

3.1 Research design & Approach

Research philosophy

Research philosophy term refers to belief system and assumptions on about the development of knowledge, giving direction and limits to the study (Saunders, Lewis, & Thornhill 2009, 124). Pragmatism was chosen as the research philosophy of the study. Multiple perspectives and empirical data were a focus point of the study. A problem called leftover currency was noticed by the author, and data towards solving the problem was seen important especially due to the lack of academic writing on the subject. With the data and talking points the study can build a strong case on the subject, and possibly see if there is more attention needed on the subject than meets the eye.

Research approach

In the study the was going to involve a lot of theory and observation of patterns which is why the study steered towards inductive approach. Inductive approach starts with observation of a problem, then studies the patterns and at the end a theory on why such phenomena might be happening is generated (Saunders, Lewis, & Thornhill 2009, 145). The nature of the problem is somewhat unknown but specific, so the task was to get a feel what is going on generally and build a theory and/or data basis for the subject.

Methodological Choice

A single or mono method was not deemed enough for the study, it was important to gather qualitative and quantitative data to create a base of knowledge and. For data collection mixed method methodological stance was chosen, qualitative and quantitative in the forms on literature review and survey. Literature review was conducted to create base of knowledge and survey was conducted to gather numerical data about leftover currency.

“Data for qualitative study may comprise written texts (e.g., documents or field notes) and/or audible and visual data (e.g., recordings of interviews, focus groups or consultations)” (Bailey, 2008, 127). In this case qualitative data is written text and visual data gathered from video games in form of screenshots.

“Data analysis is an iterative process of manipulating and interpreting numbers to extract meaning from them—answer research questions, test hypotheses, or explore meanings that can be derived inductively from the data.” (Mertens, Pugliese & Recker, 2017,1). In this case quantitative data is gathered via survey.

3.2 Data collection and analysis methods

Data to get a descriptive answer on research question 1 (What is the purpose and role of premium currencies?) was done by collecting information in the form of literature review and by finding examples withing video games how the premium currencies are used. Most of the articles were found via Google Scholar, for some portions non-academic texts were necessary due to lack of information in academic writing on the subject.

Data for the second question of the study (Does leftover currency affect the buying decision of in-game currency?) was conducted by surveying gamers. A survey was created in webropol, which was divided into 4 pages. First page was an introduction page. Second page asked age, occupation, and current country of residence. Third page asked video game habit related questions, platforms used, how often they play, and spending habits. On the page 4 questions were all related to the subject leftover currency and the possible effects of it on the buying decision. Requirement for answering the survey was that the participant(s) have either seen premium currencies and/or has spent money on premium currency. Answers to survey was gathered by sharing a link in multiple Discord servers where the author could get in contact with people who play video games. Some of the servers were privately used ones, and some were more publicly available like the GamePit by JAMK discord server. The full survey can be found in the "Appendix" section at the end of this study.

4 Results

In this chapter the results for empirical study are presented.

4.1 Empirical study

A survey was conducted to investigate the research question: Does leftover currency affect the buying decision of in-game currency? Requirement for answering the survey was that the participant(s) have either seen premium currencies and/or has spent money on premium currency.

4.1.1 Background information

A total of 86 people answered the survey successfully, answers from people under 18 were filtered out of the study. Youngest participant was 19 years old and oldest 37 years old. Median age was 23 years old.

68 of the participants who answered the survey were occupied as a student, 16 were working, 7 unemployed and 1 selected other. Some of the people who answered had multiple occupations.

80 of the 86 participants who answered the survey the current country of residence was Finland. For the rest, countries of residence were, Nigeria, Vietnam, Spain, France and 2 in the United Kingdom.

Habits of the participants when it comes to video games was also surveyed.

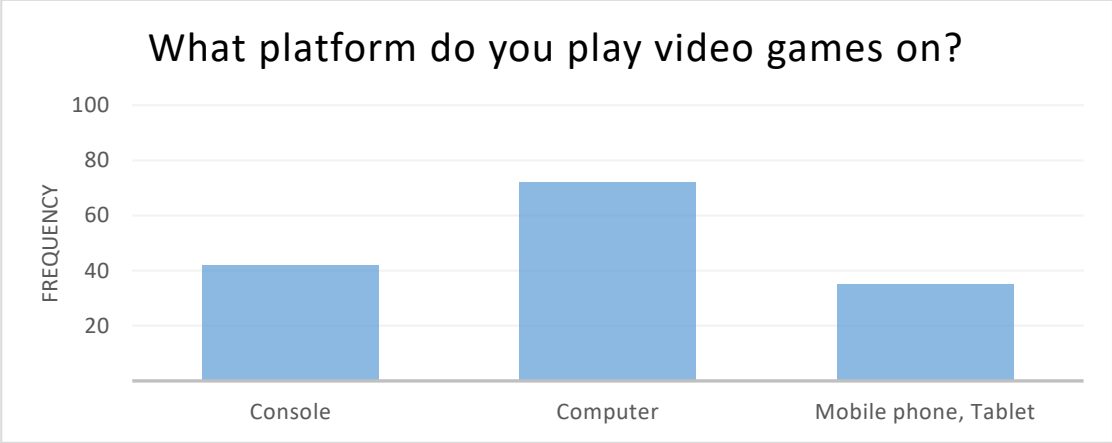


Figure 4 Platform

Out of 86 participants, 72 (83,7%) played video games on computer which also was the biggest group of the study. 42 (48,8%) played video games on console. Mobile platform users were the smallest group out of the study with 35 (40,7%) participants playing video games on mobile platforms. Participants were able to pick multiple platforms, 49 (58%) of the participants played video games on more than one platform.

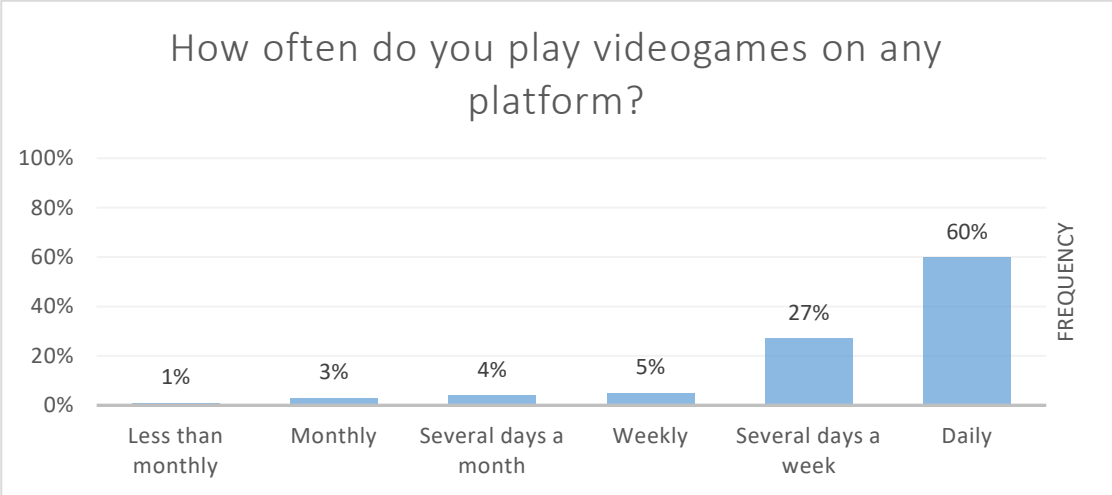


Figure 5 How often do you play videogames

It was crucial for the study that the participants were familiar with video games to the extent that they are aware of premium currency. A healthy portion of the participants played video games daily, daily portion being 52 (60,5%) participants. A drastic drop can be seen in other options, with rest of the participants playing video games several days a week or less. Furthermore, 23 (26,7%) participants stated that they play video games several days a week. From the participants 4 (4,6%) played video games weekly. Both several days a week and monthly portions had 3 (3,5%) participants answering. Only one (1,2%) participant played video games less than monthly. Total of 79 (91,8%) participants played videogames weekly or more.

Spending on premium currencies by participants was somewhat reserved when it comes to how often they spent money. With majority of participants buying monthly or less and only 6 (7%) participants spending biweekly or more often. Players who do not spend money on microtransactions often, and especially on premium currency, usually are the majority of player bases in video games.

Table 1 How often do you spend money on video game premium currencies?

How often do you spend money on video game premium currencies?	Count	Percentage
Once a day	0	0,0 %
Once a week	3	3,5 %
Once every 2 weeks	3	3,5 %
Once a month	16	18,6 %
Once every 3 months	13	15,1 %
Once every 6 months	15	17,4 %
Once a year	36	41,9 %

Almost half of the participants 36 (41,9%) answered that they spend money on premium currencies once a year. Rest of the options saw a drastic drop from the 36 participants in once-a-year category. Biyearly 15 (17,4%), quarterly 13 (15,1%) and monthly 16 (18,6%) all were withing 3 participants from each other. Smallest 2 groups which participants chose were biweekly and weekly, both had 3 (3,5%) participants. None of the participants spent money on premium currencies daily.

Yearly spending was surveyed also, with a quick glance at the graph one can see that 2 of the participants fell into the category of a “whale”. Whale being someone who spends money in a game(s) significantly more than majority of the player base or in this case participants and often are targeted by gaming companies because of the larger flow of money. Highest spending per year from the participants was 1200€ and second highest 1000€ in a year, which both are a long distance away from the median for the spending on premium currency was 22,5€ yearly. Minimum spending amount by a participant(s) was 0€ per year.

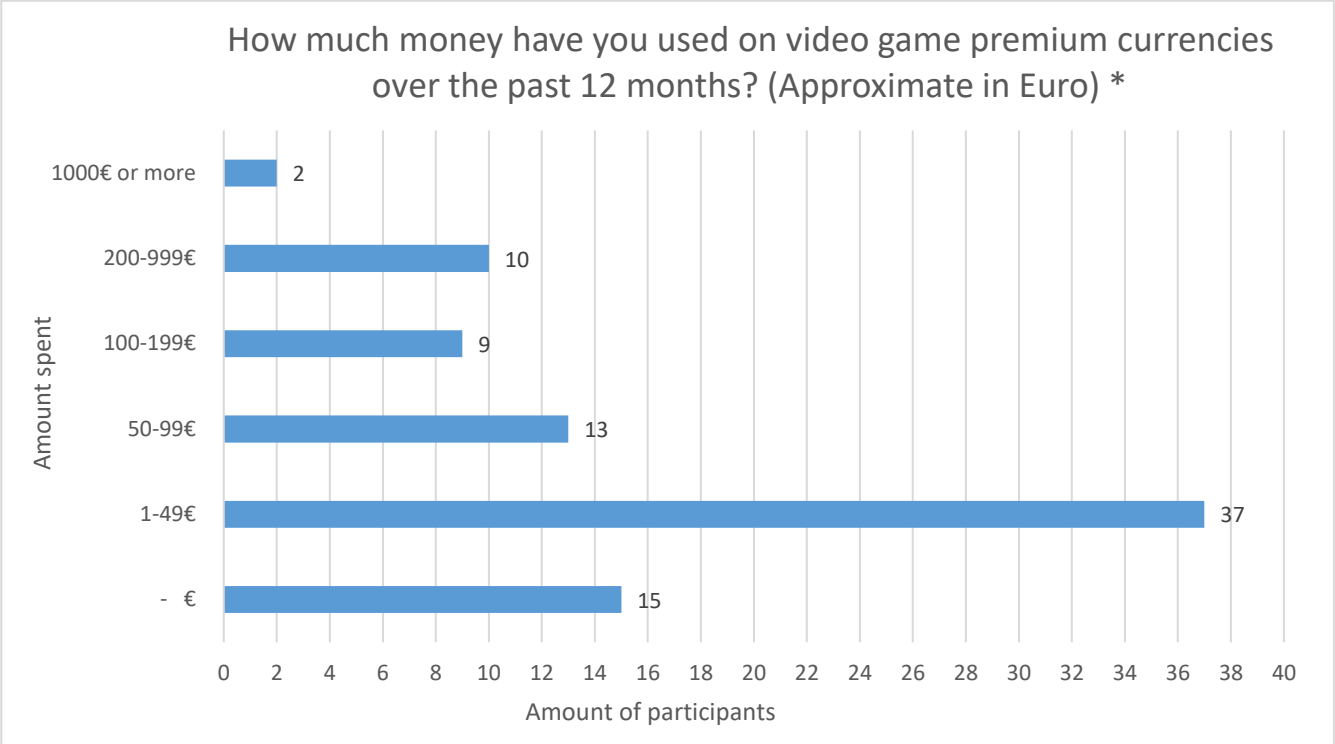


Figure 6 Spending

When it comes to each group, there was 15 (17%) participants who were spending 0€ per year. Biggest group was participants who spent 1-49€ during the past year, with 37 (43%) participants. 50-99€ amount spend had 13 (15%) participants. Going triple digit numbers and beyond saw a decrease when compared to the others, with 9 (10%) of the participants spending 100-199€ past 12 months. 200-999€ past 12 months were spent by 10 (12%) participants, and the smallest group 1000€ or more were just 2 (2%) of the participants.

4.1.2 Leftover currency

Last page of the survey focuses on leftover currency, participants were asked simple questions related to leftover currency and were given 2 example cases.

Participants of the survey were given a brief introduction to the term “leftover currency” in case participant(s) were unfamiliar with it. The following introduction was given:
This part will focus on leftover currency. If term leftover currency feels unfamiliar i would kindly ask you to read part "what is leftover currency?".

What is leftover currency? Amount of premium currency in a video game that is left after intended purchase and is not enough to purchase anything else in the game or something that you deem an unnecessary.

Example:
If you buy 1000 points for a video game with 10 euros, and you spend 950 on a battlepass. You will have 50 points left, that 50 points which is not enough to buy anything in the game, that can be called leftover currency.

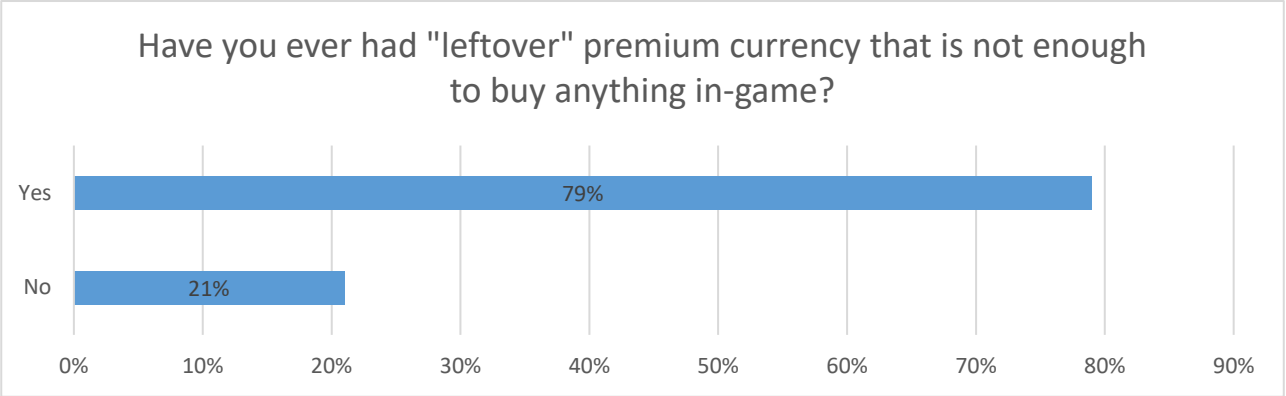


Figure 7 Have you ever had leftover premium currency?

Participants were asked if they have ever had leftover premium currency that is not enough to buy anything in-game. Most of the participants answered yes, they have had leftover currency that is not enough to buy anything. 68 (79%) of the participants answered yes and 18 (21%) participants answered no.

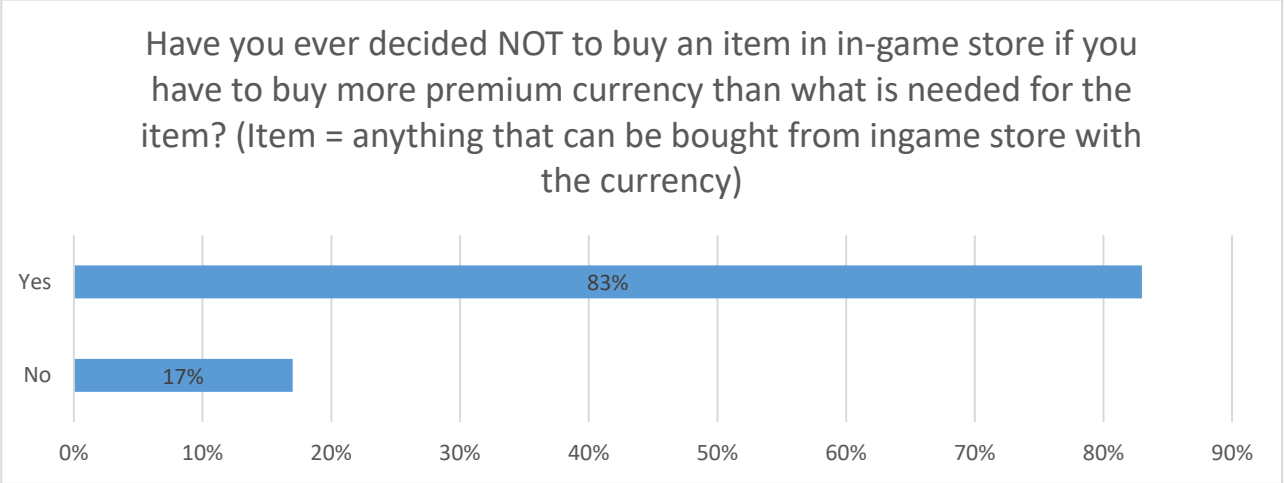


Figure 8 decided NOT buy more premium currency

Having to buy more premium currency than is needed for a item one would like to buy has affected the buying decision of most of the participants in the study. With 71 (83%) participants answering have decided not to buy an item in in-game store due to having to buy more currency than is needed, and only 15 (17%) answered that it did not influence the buying decision.

Up next results of two example cases are shown. Example case 1. During the first season in Valorant (video game made by Riot Games) there was a set of gun skins for sale. The price for set was 7100 points. During the time other skins prices were between 1275-1775 points. Prices for the set and skins you can find below.

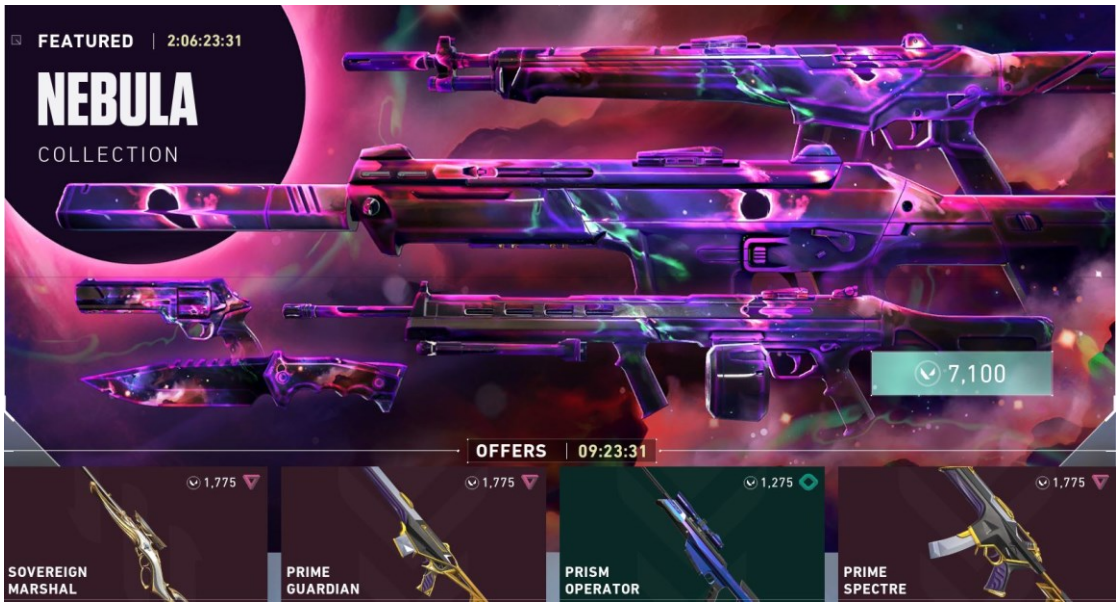


Figure 9 Collection & Shop (Valorant, Riot Games, 2020)

Viable points packages for the set were the following during first season: 21.99€ for 2150 points 53.99€ for 5500 points 99.99€ for 10500 points.

Figure 10 Point packages (Valorant, Riot games, 2020)

In the survey it was asked, if you were to buy the set, would you rather directly purchase the set or using the previously mentioned points sets? Participants answered followingly.

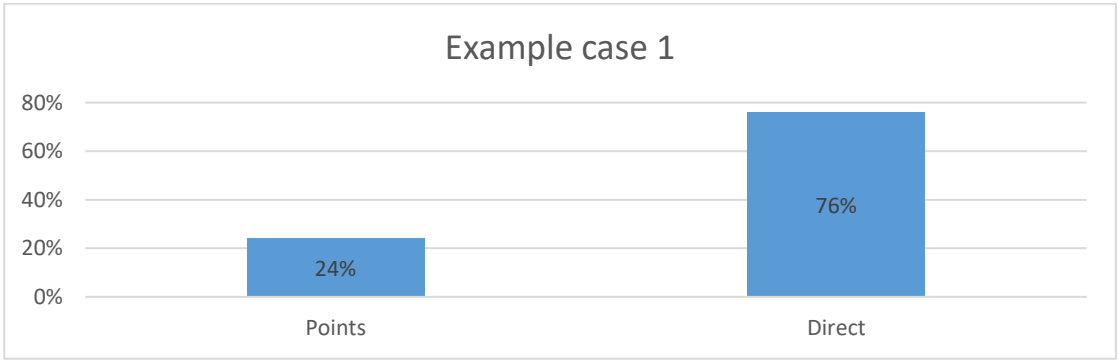


Figure 11 Example case 1

Overwhelmingly 65 (76%) of the participants would rather purchase the set directly rather than for the points, which 21 (24%) would rather purchase.

Example case 2. During an event in Apex Legends one Event Loot box was sold for 700 Points.

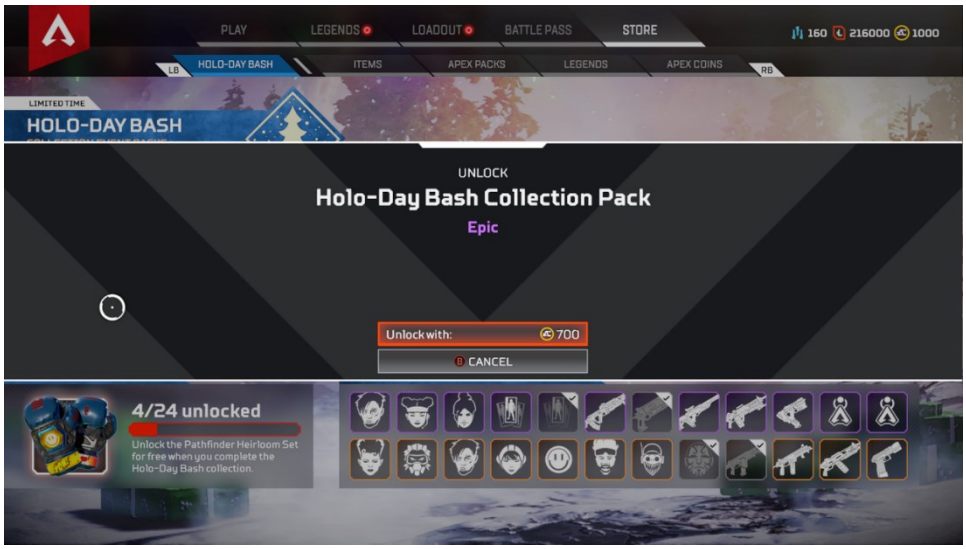


Figure 12 Apex Legends Event Pack (Apex Legends Respawn Entertainment, 2020)

Point packages during the time of the event: 9.99€ for 1000 points 19.99€ for 2150 points 39.99€ for 4350 points.

Figure 13 Apex points prices (Apex Legends Respawn Entertainment, 2020)

10% member discount which can be seen in the “Figure 7” was applied for people who paid 3,99€ per month, this was not taken in to the context for the example case. During the time normal lootboxes were 100 points each and skins in the market were 500 points and 1800 each.

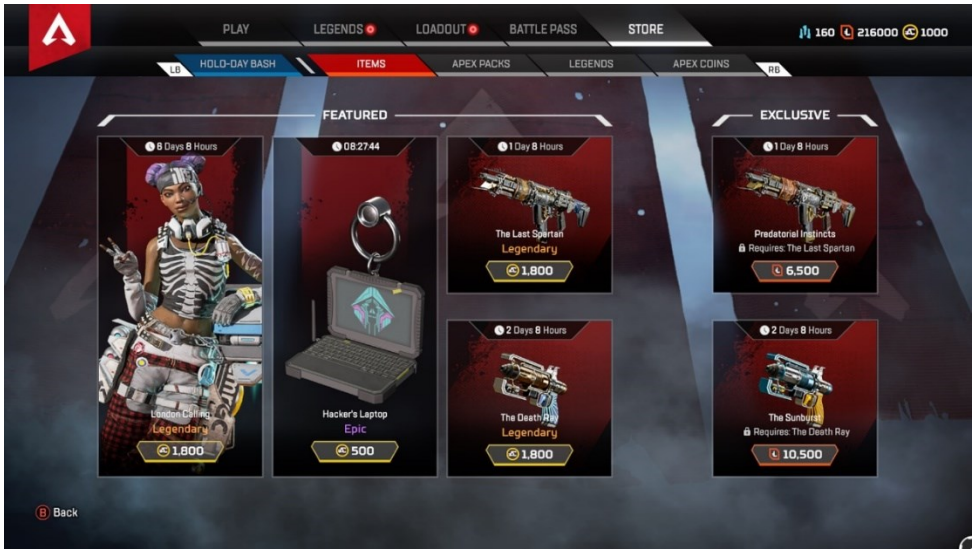


Figure 14 Apex Legends costmetic items (Apex Legends Respawn Entertainment, 2020)

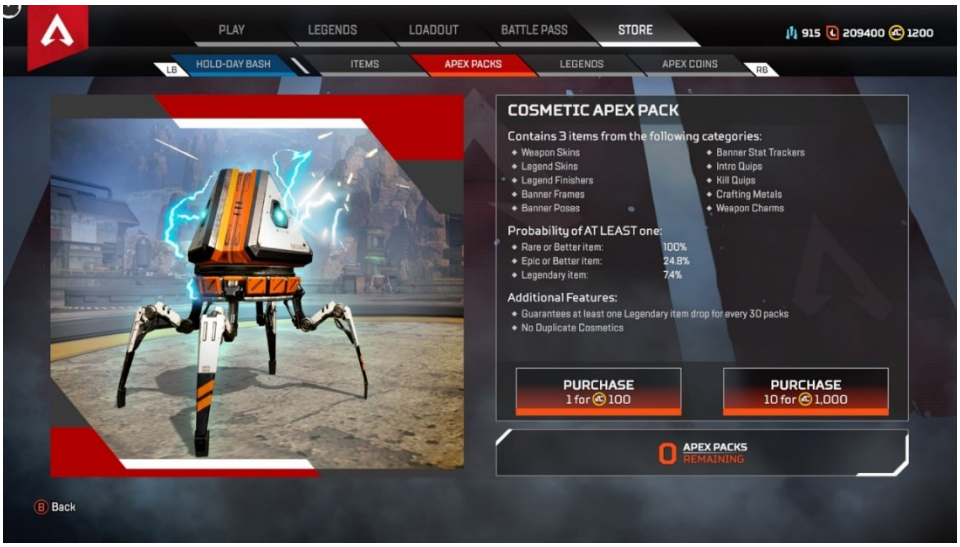


Figure 15 Apex Legends Apex pack (Apex Legends Respawn Entertainment, 2020)

Participants were asked, if you were to buy one or multiple Event Loot box(es), would you rather directly purchase the Event Loot box or using the previously mentioned points sets?

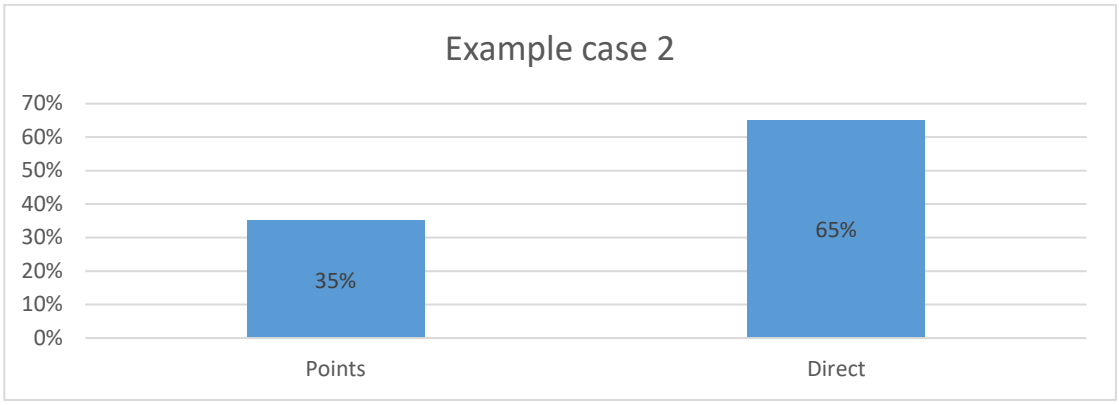


Figure 16 Example case 2

Participants would rather use direct buy option rather than buying points in the example case two. 56 (65%) opted for direct buy option and 30 (35%) opted for points option.

Up next a generalized version of the example cases was asked, this way it was possible to get a answer that was based their previous experiences and how they possibly behave in the future.

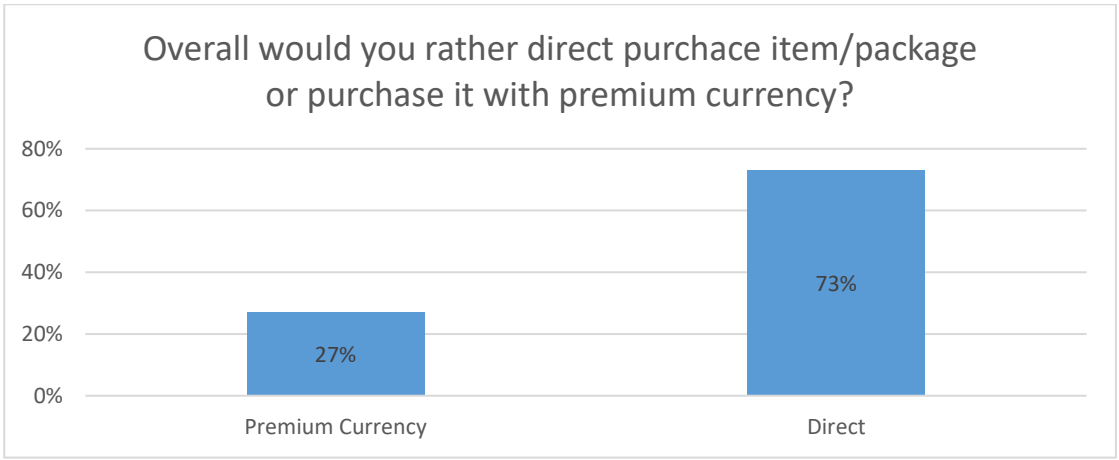


Figure 17 Direct or Premium?

Participants answered similarly to this when compared to example cases. With 63 (73%) preferring the direct option and only 23 (27%) of the participants preferring the premium currency system.

It was also surveyed that did leftover currency influence buying decision before the survey and after survey, before the survey results were the following.

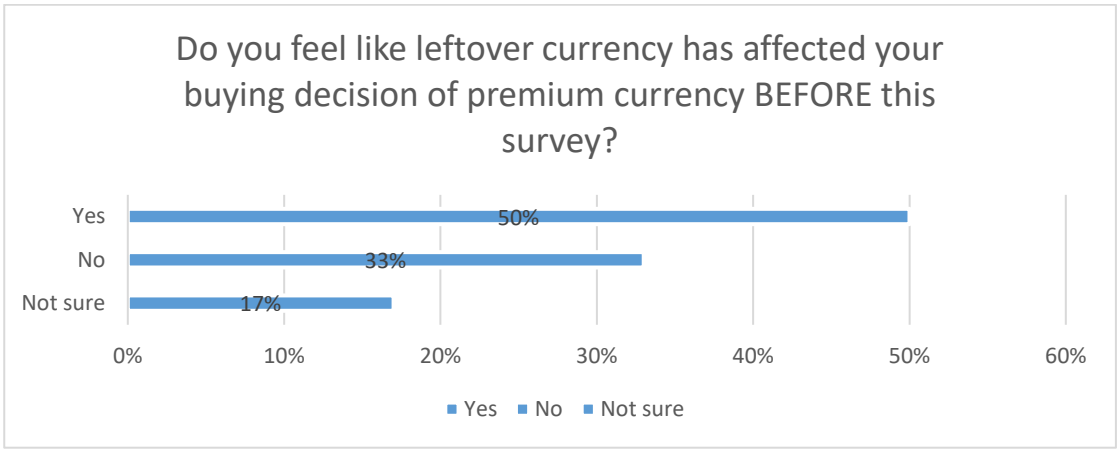


Figure 18 Buying decision BEFORE

Out of 86 participants 43 (50%) felt like leftover premium currency influenced their buying decision before the survey. 28 (33%) stated that it had no impact and 15 (17%) were not sure if it had impact on the buying decision.

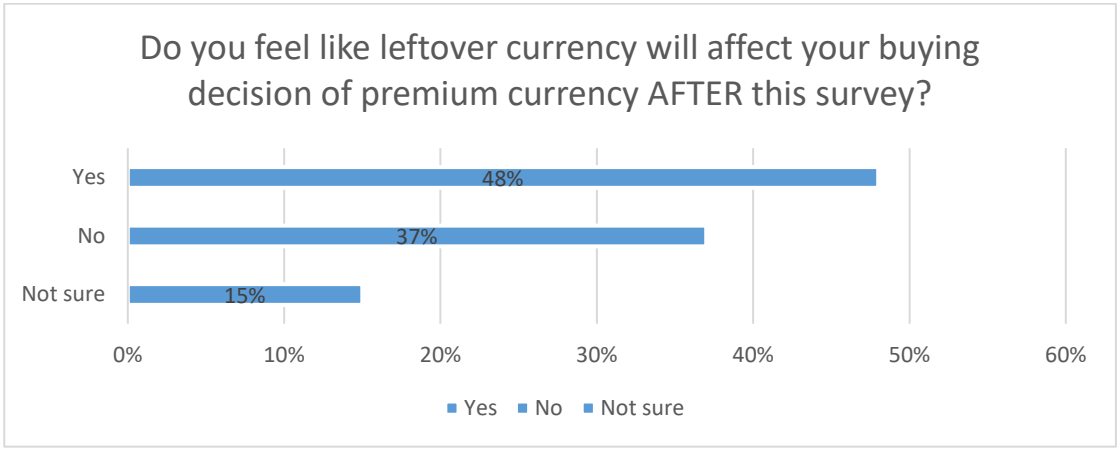


Figure 19 Buying decision After

On the flipside results were similar. 41 (48%) of the participants stated that premium currency would still influence their buying decision. There was a slight increase in the participants who felt like that after the survey it won't have an effect, amount being 32 (37%). Fewer 13 (15%) were not sure this time if leftover currency would influence the decision.

5 Conclusions & Dicsussion

5.1 Answers to research questions

Looking at the research questions and how answers for these questions filled up the research problem was satisfactory. Going through the questions one by one starting with (What is the purpose and role of premium currencies?). By conducting the literature review for this study a basic answer for the question was found.
Purpose and role of the premium currencies is to work as a alternative wallet for a player in the video game without having to type in/save the payment information each time the player wants to buy a premium item within a game. However, once you transfer exchange real world currency to premium currency in a video game player cannot transfer that currency back to real world currency. It is important to note that currency withing video games that is earned by playing is different than premium currency. Premium currency often can only be obtained by buying hence the part premium in the name, however some games tend to offer a chance to earn few euros worth of premium currency few times a year.

For the second research question (Does leftover currency affect the buying decision of in-game premium currency?) a survey was conducted. This was conducted to get a view of the possible effects on the customers buying decisions when using premium currency in a manner that leftover currency occurs. While the sample size on the conducted survey was small, the answers were strongly against premium currency even though it is a proven concept as a monetization model for video games.

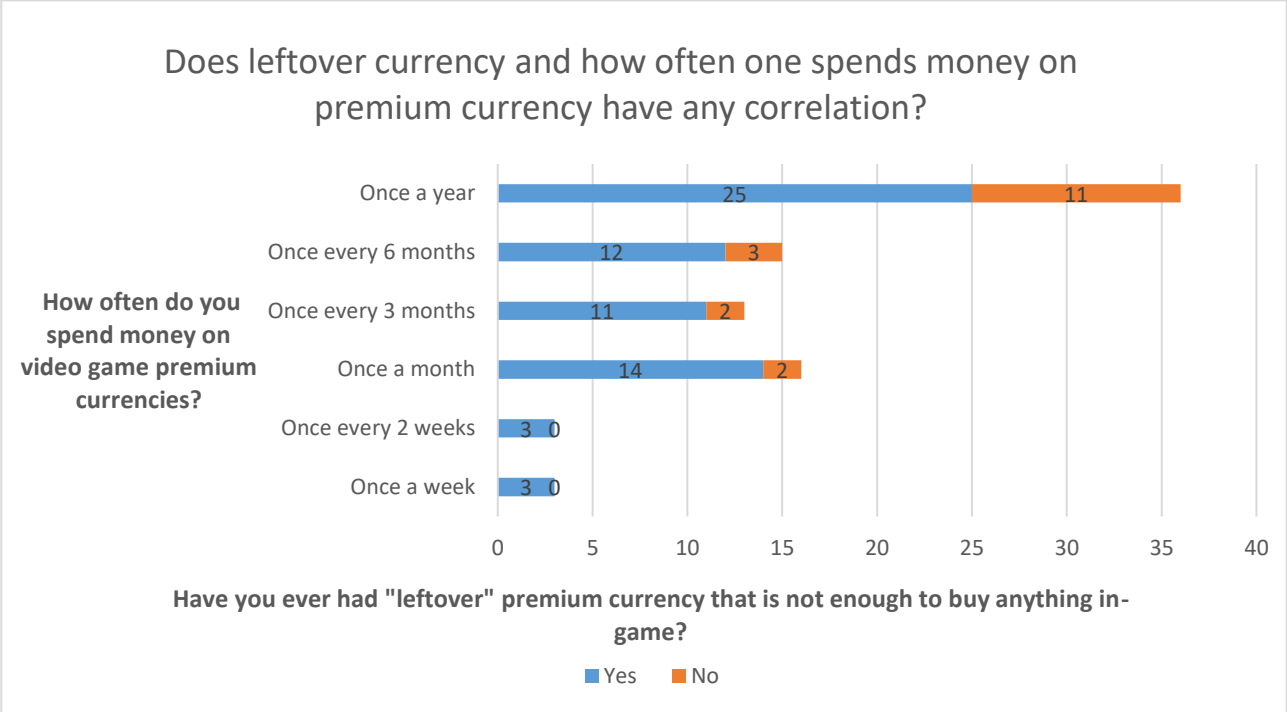


Figure 20 Does leftover currency and spending have correlation?

When comparing Table 1 and Figure 7 in Figure 20, it can be seen that spending habits could have an effect on having leftover currency. Majority of people who spend money on premium currency once every 3 months or more often, has a higher chance of having leftover currency. There could be many reasons to this, few to speculate could be that the player is more aware of the situation due to spending more often. Other reason could be that the player does not want to spend a lot of money during one transaction and tops up more often.

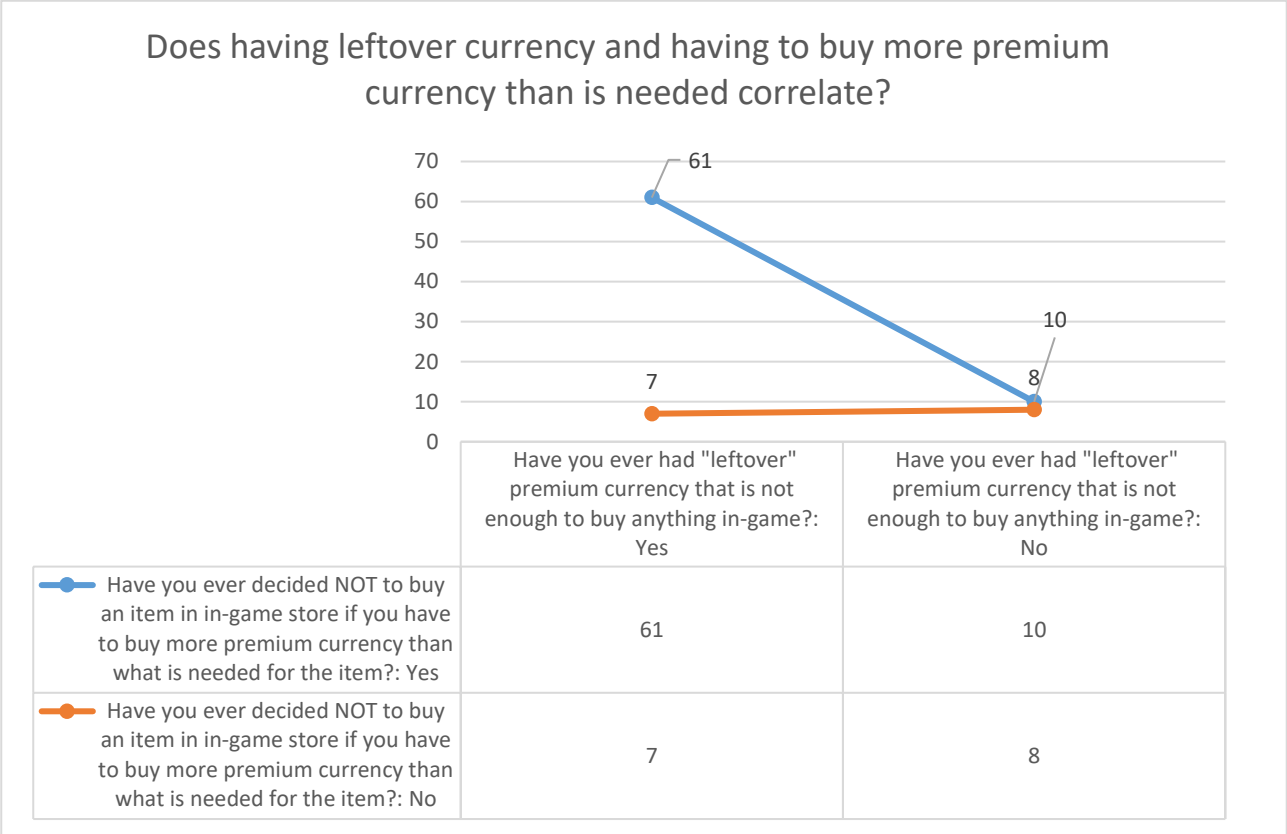


Figure 21 Does having leftover currency and having to buy more premium currency than is needed correlate?

Four in five participants answered that they have had leftover currency, that is not enough to buy anything from the in-game store. Four in five participants also answered that, they have decided not to buy anything from the in-game store if they had to buy more points that was needed for the initial purchase. In the Figure 21, it can be seen that there in fact is correlation. When player is aware and/or has noticed that they have had leftover currency, the player is more likely to decide that they will not be spending money on premium currency.

Figures 11 and 16 were example cases, cases were both similar but in drastically different price points. Even thought the price points in both figures were different, difference was only 9%. Participants would rather use premium currency than direct purchase higher the purchase price is. This could be due to the positive effect of leftover currency, with player having balance still left even after a big purchase. However, in the Figure 17, one can see that 73% of the participants are in the favor of direct purchase. This would mean that overall players would like to buy things from digital stores directly with real money rather than spending real money to buy premium currency and then buy the virtual item.

Lastly the third research question (How could and/or should gaming companies be using leftover currency in their business models?) combines both the question 1 and 2 and based on those author gives a few viewpoints for possibilities.

Further research from monetization team within a gaming company is recommended before making any drastic changes since the study is missing the inside information which could contradict the results of the study. This could be done by adding a data set filter to the system which filters how many players have premium currency on their account that is not enough to buy anything. Next step could be adding a data set filter where the amount of leftover currency on each account is, here minimum, maximum and median would-be useful points to look at. With these 2 data sets available one could also research what is the conversion rate to buy more premium currency. Depending on the results one could already tell if further research or need of action is needed.

In case the results are drastic and good portion of the player base has leftover currency author recommends possible 3 options. Firstly, further research in form of player survey or other data related research. Secondly action that is low threshold for example monthly sales based on the data or coming up with items that would fit the leftover currency amounts that were found in the data. Thirdly high threshold action, adapting the current prices in a way that the leftover currency is minimized.

5.2 Assessment of research quality

Overall, the research produced important information of which could be referred to in the future on the subjects that were talked about in the study. However, tackling a what one could call a "new subject", leftover premium currency in video games made the study tricky for bachelor's thesis level study, meaning that the author lacked the skills to create a broad scale in-depth study in the subject.

Author was able to set a definition and do a small amount of research on the subject, if the author was a professional who would possibly have more experience with video game monetization the quality of research most likely been greater and would have been able to delve more in-depth into

the subjects. Since the study delves into unknown results for literature review and survey can provide some unexpected results. In the literature review sections of the study a problem occurred with finding a definition for the leftover premium currency in video games, this meant that author had to come up with a set definition for the subject by observing various video games.

When it comes to the survey, the low number of participants (86) can be a problem since the subject is video games. According to article published by Dexerto, Respawn Entertainment stated the following “Apex Legends player count is 18 million active monthly players. EA confirmed this in their FY2024 Q1 earnings call on August 1, 2023.” (Patterson, 2023). Meaning that the sample size of 86 participants really is not meaningful enough to set any conclusions on the broader scale, however study gives direction and a good starting point on what to look for. Also, when conducting the survey author did not take into consideration if leftover currency could help leading the customer for further purchases.

As the questions 18. and 19. it was not specified that was the impact negative or positive, even though wording was towards negatively option. For those questions it is recommended to read the results in a way that one knows leftover currency has effects on the buying decision but without clear answer is it positive or negative.

As for the ethical and trustworthiness of the study, few key factors should be pointed out. The factors are following, consistency, limitations, bias, reliability, and privacy. The study was clear throughout about the goal and how to arrive in said goal with a consistent fashion. Limitations and possible so called dark spots in which one might not find enough information on were stated and informed to the reader. A good example for this would be the definition of leftover currency and the amount of data, which is one of these so-called dark spots due to there being no previous studies in which author could refer to. This was solved by conducting a review on multiple video games to give the reader a trustworthy definition based on research & review. Privacy & reliability was important to author when creating the survey, it was important that the gathered data was deemed both safe and reliable so it can be shared with the reader of the study. No private information was asked and the survey was fully anonymous. However, 2 questions might spark interest

in this regard, which were age and country of residency. These 2 questions were asked due to author being able to filter underage answers away from the questionnaire due to the possibility of underage players having different habits of spending and due to the need of permission from a adult to answer the questionnaire. As for the country of residence, it was deemed important to know due to the economic differences around the world. In the study, there was a slight bias towards customers due to the study being focused on a possible problem created by companies that create the games and model the monetization in a way that it could be predatory. However the study does not attack the companies, but does the opposite. Study shows that there might be a problem, in which companies should look in to and gives recommendations on how to do it and reasons, why leftover currency might have negative effect on spending by players. When conducting the literature review, author left out articles and studies that the author deemed not worthy of the same factors as the author based this study on, meaning that the references are trustworthy. All the sources used in this publication have been cross-referenced to original authors. No artificial intelligence has been used to generate the body of the thesis text.

5.3 Ideas for research

Further in-depth studies and research on the subject leftover premium in video games is advised due to the small number of participants but alarming nature of the results at the same time. With participants of the research being highly in favor of direct purchase compared to points and half of the participants stating that leftover currency has impacted their decision further studies could be crucial to optimize the possible negative effects on buying decision or vice versa. A wider range study at minimum by an expert on the field of video game monetization is recommended on the subject leftover currency. Further studies could be a follow-up study on this study to get broader view on the subject and/or a case study on their own product by an expert under a video game company.

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Appendix 1 Survey

Premium currency in video games

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Mandatory questions are marked with a star (*)

Welcome!

The survey studies premium currency and leftover currency in video games from the consumers point of view.

Requirement for answering the survey is that the participants have either seen premium currencies and/or has spent

money on premium currency.

Premium currency: In-game currency in video games that can be purchased with real world currency.

Collected data will be used on my thesis, survey is voluntary and anonymous. Survey will take approximately 5-10 minutes.

Please answer the questions in English. This helps greatly when analyzing the data.

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1. Age []

2. Occupation

- Student
- Working
- Unemployed
- Other

3. Country where you currently live in []

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4. What platform do you play video games on? *

- Console
- Computer
- Mobile phone, Tablet

5. How often do you play videogames on any platform? *

- Daily
- Several days a week
- Weekly
- Several days a month
- Monthly
- Less than monthly

6. How often do you spend money on video game premium currencies? *

- Once a day
- Once a week
- Once every 2 weeks
- Once a month
- Once every 3 months
- Once every 6 months
- Once a year

7. How much money have you used on video game premium currencies over the past 12 months? (Approximate in Euro) * *€

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This part will focus on leftover currency. If term leftover currency feels unfamiliar i would kindly ask you to read part "what is leftover currency?".

What is leftover currency?

Amount of premium currency in a video game that is left after intended purchase, and is not enough to purchase anything else in the game or something that you deem an unnecessary.

Example:

If you buy 1000 points for a video game with 10 euros, and you spend 950 on a battlepass. You will have 50 points left, that 50 points which is not enough to buy anything in the game, that can be called leftover currency.

8. Have you ever had "leftover" premium currency that is not enough to buy anything in-game? *

- Yes
- No

9. Have you ever decided NOT to buy an item in in-game store if you have to buy more premium currency than what is needed for the item?

(Item = anything that can be bought from ingame store with the currency) *

- Yes
- No

10. Example case 1: During the first season in Valorant there was a set of gun skins for sale. The price for set was 7100 points.

Viable points packages for the set were the following during first season:

21.99€ for 2150 points

53.99€ for 5500 points

99.99€ for 10500 points

During the time other skins prices were between 1275-1775 points.

IF you were to buy the set, would you rather directly purchase the set or using the previously mentioned points sets? *

- Direct
- Points

11. Example case 2: During an event in Apex Legends one Event Loot box was sold for 700 Points.

Point packages during the time of the event:

9.99€ for 1000 points

19.99€ for 2150 points

39.99€ for 4350 points

During the time normal lootboxes were 100 points each and skins in the market were 500 points and 1800 each.

IF you were to buy one or multiple Event Loot box(es), would you rather directly purchase the Event Loot box or using the previously mentioned points sets? *

- Direct
- Points

12. Overall would you rather direct purchace item/package or purchase it with premium currency? *

- Direct
- Premium Currency

13. Do you feel like leftover currency has affected your buying decision of premium currency BEFORE this survey? *

- Yes
- No
- Not sure

14. Do you feel like leftover currency will affect your buying decision of premium currency AFTER this survey? *

- Yes
- No
- Not sure

15. If you have anything to add about premium currency or leftover currency feel free to do so!