

Mobile Gaming Industry Market Analysis



Bachelor's thesis

Valkeakoski campus, International Business

Autumn 2022

Sami Marttila

The focus of this thesis was to conduct research on the mobile gaming market and to find out how the market has been evolving and growing from when video games have become more popular to now, when they are as popular as movies and other media sources. The thesis analyses multiple sources of how the video game market has evolved, but focuses more on mobile gaming and how mobile gaming has grown with other gaming platforms as well as what state mobile gaming is right now, to help predict what expectations there are in the future for mobile gaming.

Moreover, the thesis focuses on some parts of the Finnish and Asian markets, and how popular mobile gaming is in these markets additionally, who plays mobile games generally and what age groups like to play mobile games, and also do they spend money while playing was researched. Furthermore, finding out what types of gaming trends have grown in the market as well as games that have maintained their popularity, and conversely, which games have failed and why have been examined.

The study was carried out from official secondhand data and websites because there is not much literature published on this topic at present. Using secondhand data has made it easier to find relevant sources and constant updating helped discover more information about the subjects. Online sources were used including news articles, blogs, critic reviews, professional studies, and questionnaires.

The study revealed that people are interested in playing mobile games, and that both genders like to game. Moreover, the main reason people play mobile games is to escape from real life for a period of time. Unfortunately, only a small number of people answered the questionnaire, which was distributed, therefore further practical research is needed to improve the accuracy of the results.

Keywords Mobile gaming, English, analysis

Pages 30 pages and appendices 1 pages

Tämän opinnäytetyön tavoitteena oli tehdä tutkimusta mobiilipelimarkkinoista ja selvittää, miten markkinat ovat kehittyneet ja kasvaneet videopelien suosion kasvamisesta tähän päivään, jolloin ne ovat yhtä suosittuja kuin elokuvat ja muut medialähteet. Opinnäytetyössä analysoidaan useita videopelimarkkinoiden kehityksen lähteitä, mutta keskitytään enemmän mobiilipelaamiseen ja mobiilipelaamisen kasvuun muiden pelialustojen kanssa sekä mobiilipelaamisen nykytilanteeseen, jotta voidaan ennustaa, mitä odotuksia pelimarkkinoilla on. Mobiilipelaamisen tulevaisuudessa.

Lisäksi opinnäytetyössä keskitytään joihinkin osiin Suomen ja Aasian markkinoita ja kuinka suosittu mobiilipelaaminen näillä markkinoilla on lisäksi, kuka pelaa mobiilipelejä yleensä ja mitä ikäryhmiä mobiilipelien pelaaminen miellyttää, sekä kuluttavatko he rahaa pelatessaan. Lisäksi selvitetään, millaiset pelitrendit ovat kasvaneet markkinoilla sekä mitkä pelit ovat säilyttäneet suosionsa ja päinvastoin, mitkä pelit ovat epäonnistuneet ja miksi.

Tutkimus tehtiin virallisista käytetyistä tiedoista ja verkkosivuilta, koska aiheesta ei tällä hetkellä ole juurikaan julkaistu kirjallisuutta. Käytettyjen tietojen käyttäminen on helpottanut olennaisten lähteiden löytämistä, ja jatkuva päivitys auttoi löytämään lisää tietoa aiheista. Verkkolähteitä käytettiin, mukaan lukien uutisartikkelit, blogit, kriitikot, ammatilliset tutkimukset ja kyselyt.

Tutkimus paljasti, että ihmiset ovat kiinnostuneita mobiilipeleistä ja että molemmat sukupuolet pitävät pelaamisesta. Lisäksi suurin syy siihen, miksi ihmiset pelaavat mobiilipelejä, on paeta tosielämästä joksikin aikaa. Valitettavasti vain pieni määrä ihmisiä vastasi kyselyyn, joka jaettiin, joten käytännön lisätutkimusta tarvitaan tulosten tarkkuuden parantamiseksi.

Keywords Mobiili pelaaminen, Englanti, analyysi

Pages 30 sivua and appendices 1 sivu

Contents

1	Introduction.....	1
1.1	Research question.....	1
1.2	Current state of industry.....	1
1.2.1	Mobile gaming.....	3
1.3	Research limitation	3
2	Theoretical Framework	3
2.1	Videogaming	3
2.2	Video game industry evolution.....	4
2.3	B2C Dynamic	4
2.4	What succeeded and what failed	5
2.5	Mobile gaming	8
3	Methodology	9
3.1	Industry analysis.....	9
3.2	Mobile gaming industry analysis.....	11
3.3	Mobile gaming audience.....	15
3.4	Asian mobile gaming market overview.....	17
3.5	Finnish Mobile Gaming Market analysis.....	18
4	Results	21
4.1	Webropoll result and analysis.....	21
	Conclusion	30
5	Sources	32

Appendices

Appendix 1 Webropoll Questions

1 Introduction

This thesis is a view into the mobile gaming industry and how it has grown over the years. This thesis is going to go through the multiple reasons why the industry has recorded such a change and also what are the future perspectives of this industry.

The topic has been provided by Hamk's Gaming Academy which supports student's teaching on professional gaming. Their interest in the state of the industry and also in the videogames market and especially mobile gaming industry.

Hamk Gaming Academy's idea is teaching all level people about videogaming, e-sport and also possibilities to creating games, according to the type of studies the person wants to focus further on. They also have their own e-sport team, if one wants to experience the possibility of e-sport events. They also collaborate with many local and national partners.

1.1 Research question

The thesis will focus on the trends that can be noticed on the Finnish and international markets with regards to the growing rate of the interest for mobile gaming. In order to help with the analysis, the following research questions will need to be answered:

What kind of state mobile gaming market is in at current moment?

Finding how mobile gaming market is doing and how popular it is with people and what kind of games people like playing in different regions will be answered, with the support of sub-questions as:

How popular mobile gaming is in the Asian market?

1.2 Current state of industry

Videogame industry is in rapid growth the biggest indicator being that 2 billion people in the world play video games. This has made big technology companies interested in the market and in trying to attract the game companies' customers for themselves. This in return, has

made the game companies become more customer-centric and focus on customers' needs and problems, so they don't lose their customers. (Beattie, 2021)

Also, when talking about the videogames industry one can in a sense think it same as the movie industry. Technology is changing all the time because developers and companies want more customers. And one can also considered that in the past, the customers didn't care about the graphics at all they just wanted to play games but at the current time, people want the highest graphics for their games and the game to look as amazing as a 100 million budget movie. Which has made the videogame industry budgets be as big as those of high-end movies. So, on the whole, all aspects of videogames, from visual to game designs to consoles have to get updates and changes so customers feel entertained. Sometimes there might fail in delivering the best but usually the industry is trying to change for the needs of the customers.

Because the videogame industry had to evolve their business models have changed in the last years and are known completely different and need the be considered in the analysis. The very well-known styles that rule the market right now are – “buy to play” which in short is called “B2P” and “Free to play” which is called “F2P” These two are now the biggest business models that are used in the industry. (Beattie, 2021)

As before said the videogame industry has a movie-style budget for video games, the tv and movie industry has also seen the potential in videogames and vice versa so in many ways they have been coming to be closer with each other. For example, this year 2022 one of the big, waited games called “Elder Ring” had its story written by George RR Martin who is a fantasy writer that has won multiple trophies and series fans, and everyone has loved the story and atmosphere of this medieval action role-playing game. (Beattie, 2021)

Netflix also has shown its interest in the videogaming business, as they started to turn games like Castlevania which is considered being a classic game from the past into a Netflix show and the show has already got its 3 seasons. This shows the potential that video games have in the entertainment business. (Beattie, 2021)

1.2.1 Mobile gaming

Mobile gaming industry that the thesis is going to focus is the mobile gaming industry, that make us of devices like phones and tablets and minicomputers. Many companies like the movie industry instead of creating movies from their top-selling games developed the same game to mobile gaming, and this has increased the sales of gaming on the platforms and made the industry grow widely when considers the Nokia “snake” game that was a huge hit at the time. Mobile gaming is ruled by huge games that have millions of players which are willing to spend money on these games.

1.3 Research limitation

This study is conducted using mostly secondary research data. Secondary research data is numerical and non-numerical information collected from books and websites and through systematic reviews and surveys. The reason why this is used in this study is that there hasn't been written much on the topic and from available studies, not many have been focusing on the mobile gaming industry.

2 Theoretical Framework

2.1 Videogaming

The word “videogame” covers multiple types of things in its name and cant be defined so easily. There are millions of video games that are different and behave differently, but all of them function to entertain people and their users. (Owen, 2016)

Video games can work as a sport, or they can be interactive tv shows and movies where one can choose what path the character takes or follow the written story for the character. They can simulate car games and life situations can let the person be artistic (dance when listening to hit music) or draw their favourite pictures. So, there isn't one type of videogames it all depends on the person's imagination and what values in their life. (Owen, 2016).

2.2 Video game industry evolution

The first game console created for customer use was called the “Brown Box”, and the year was 1972, which brought people the first well-known game “ping pong”. In this game a ball is going to both sides of the screen and the player has to block it with a bar and get a point when other players can’t block the ball. This game console had other games similar like checkers and 4 other different kinds of sports games, and the console succeeded selling 300 000 pieces in USA. (Chikhani, 2015)

After the first home console, the industry started growing slowly and taking market shares from other entertainment industries. Multiple different companies joined this adventure with their home consoles, but the biggest videogame wave started in the 21st century when Nintendo and Sony game consoles made gaming popular and people's interest with the pc became more popular. (Chikhani, 2015)

In the past decade, videogame industry has become more popular because people are able to play with their mobile phones and people have fast and reliable internet connections. Covid period has grown the popularity of the videogame industry and that is why the video gaming industry generated \$159,3 billion dollars in 2020 which is a 9.3% growth from the previous year. (Chikhani, 2015)

2.3 B2C Dynamic

Developers and marketers from the beginning of creation of game console systems had to listen to their customer's thoughts and hopes so they could create the best consoles and games that their customers are willing to spend money on. That is why they have asked multiple times for opinions and feedback from different sources to investigate the customer's segment and evolve with the added feedback.

The new business models that have been invented in following years are F2P (Free to play), P2P(Paying the game first) , DLC (more content for the game that have to be bought), In the past gamer companies were orientated on the people that were considered “hardcore” players by making the games challenging. But over the years games have become more

accessible for everyone. Thanks to technology evolving mobile gaming has been come more popular with the casual players. Due to hardware updates and mobile gaming accessibility, the B2C strategy was brought more into the market. Mobile gaming is mostly easy to play games mobile market because of the tag “casual gaming.” Where the games are overly simple and easy to access and play so the customers try the game and play as much as they like and then can drop the game if they don’t like this happens often in the industry.

2.4 What succeeded and what failed

The video game industry nowadays is a 120-billion-dollar industry and the last 10 years have made the game industry the most popular influencing culture and bringing people more jobs as videogames have become a popular hobby. But it hasn’t been easy in the industry even the big publishers like Nintendo Sony and Microsoft have failed at times but their hopes of making the industry grow have made them still try things that are new in the gaming world. The gaming industry has seen a lot of success with indie developers but also big downfalls. (Webb, 2019)

“World of Warcraft” when it was released 15 years ago created a big interest in gaming world being the first online role-playing game for computers and it has kept its popularity ever since having 1 million playing the game and paying the monthly subscription to play the game. There has been a lot of competition after “World of Warcraft” was launched many games have come and disappeared because they haven’t attracted people to play. Only “Guild Wars 2” and “Final Fantasy XIV,” have gained a success of their own hights to compete with “World of Warcraft” and gained their own followers. (Webb, 2019)

“World of Warcraft” even though have lost half of their player because they didn’t listen to their customers but during the 15th-year anniversary event they have announced the relaunch of "WoW Classic". Customers were happy that they get to play a game from 2006 that they kept high praising about, which made WoW’s subscription number go up. (Webb, 2019)

Game developers are responsible for creating the games and the quality of the game. For a period of 30 years of game development, the game companies have focused on their

customers and tried to keep some standards up when creating games, but also learned from their failures. AAA is a classification in the gaming world meaning that the developers have used a lot of money creating the games and are high and well-known publishers one example of this being Sony. A good example of a bad AAA games development that costed a lot but for a certain reason, failed are “Cyberpunk 2077”, “Battlefield 2042”, and “Fallout 76”. The biggest problem was that all of these games were created by big studios with a huge budget, so the failure affected the companies financially. (Webb, 2019)

“Cyberpunk 2077” is a role-playing first-person shooter game created by “CD Projekt”, where one can create own character in a neo utopian future and do whatever they want in the game. But the biggest problem with the videogame was that it got bugged which made the game almost unplayable to gamers that bought the game. Quest characters would disappear, and one could not continue the quest they were on, plus the bright lights that were in the cities could cause epilepsy to some players. The game sold 13 million copies when it came out, so the developers got huge financial success but lost all of the trust of the community. Only 30 000 people refunded the game and others hoped the game will come playable, but the many updates still cause huge problems in the games to make it playable. (Viktor, 2022)

The second example of a failing game is “Battlefield 2042”. Game made by EA (Electronic Arts).

EA themselves even admitted that they failed with the product and blamed the failure of the game on covid and other games they were making at the same time as “Halo”. But they didn’t say why features like the scoreboard that is essential in this type of first-person shooters games was missing and they didn’t also talk about why in-game characters either disappeared or they were props that were hard to see or figure if they were players or not which was the biggest reasons why the players started to play an older game and not care about EA’s announcement. (Fooley, 2022)

One of the biggest mobile game failures is “Diablo Immortal” created by “Electronic Arts” (“EA”). The game didn’t make financial loss but made many mobile gamers angry with its “predatorial” style of forcing using money in game.

2022 created "Diablo Immortal" is new mobile game created from popular franchises "diablo" and this was the first iteration in mobile others have usually been released on PC. The game is fantasy role playing game where one plays characters, and one can choose what kind of "items" the character one plays have and each of these items have different kind of effect than others and some are rarer than others. So, what "EA" did that they put all of these rare material and items to "loot boxes" items that one has to buy with real money. Also, because these items are supers rare, they made the change of one getting this kind of items very low a player has 5% change to get one of these items in "Diablo Immortal" says "EA", but this isn't true. Customers found out the real chance of getting one of these items is 0.0045% making it almost impossible getting the items. These percentages were found out when few of "twitch" streamers try to get these items and both has to spend over 20 000 dollars on stream to max out their character and they were extremely lucky. (Dowd, 2022)

Players counted that they need to spend 100 000 dollars to get the best items for they character that they need to beat the end game bosses. Which made many players angry and cause mass protest within the players. Because if one person doesn't have end game gear like this it limited them on playing the game because their characters can kill the needed boss that they need to kill to progress in the game. (Dowd, 2022)

"EA" were happy that they got 10 million download of the game in the first two week and ignored what people said. But this has also brought people that have the money to spend that they love the game and don't mind that one needs to spend thousands of dollars to play the game and given a "10" in review sites to show the support even though 90% of the customers and reviewers think this game is a money hole to only take one's money. The game is review by customer being "0.2" as review score by the customers. (Jaisrani, 2022)

"Diablo Immortal" making 100 million dollars in 8 weeks proves that some people are ready to pay a lot of money to play game and people call these ones "whales" that are ready to buy anything inside of videogames and don't care of the money. Even though Holland and British gambling laws didn't slow the games sales. These countries banned the games because they considered "loot boxes" as gambling. (Jaisrani, 2022)

The last well-known case of AAA flopping horribly is the “Fallout 76” game, which was developed by Bethesda. Like the other 2 games “Fallout” was also considered to be an incomplete game for the price the game was sold and the amount of money that was used for making the game. Instead of the game being a big hit and getting fan's admiration they created a game that had 200 glitches and problems that ranged from either making the player lose their own progress, and items that they had use real-life money to get as a pre-order bonus. When they had more system bugs and problems Bethesda stops listening to the gamers' feedback. (Slobodian, 2021)

The videogame industry is constantly changing so it's not uncommon that trends come and go so it's important to understand the trends and things happening around the industry to create the best games but also that customers feedback and interest are just as important. But the most important thing that can be learned from this huge mistakes is that when charging a full price from a game that has problems and system bugs the creators and most important developers lose their customers support and trust for future games so creating a game with good playability is of the utmost importance. (Slobodian, 2021)

2.5 Mobile gaming

Mobile gaming used to be of less interest in the past because the prices of the game on mobile were so big compared to the content that the players got and were thought to be just brainless games where you play the game a few minutes at a time. Games from that period were “Snake” and “Tetris”. These games represent the first era of the games that made people interested in mobile gaming until Finish company Rovio brought “Angry Birds” on to the market, which made people become interested and in mobile gaming and changing the game being a huge cost to free to play with stamina or microtransactions inside of the game. (SocialPeta, 2021)

But still, most of the pc and console gamers considered mobile gaming because their quality isn't yet at the same standards as pc or console games. Because in these console hardware is made to utilize the past processor and component to give the best optimal experience for the gamer while mobile hardware at the moment is for use and utility than just used only for

gaming. Also, the technology used for this hasn't yet been made small enough to fit in mobile phone. (Banerjee, 2020)

People have superior complex on their platforms, so they haven't seen the possibilities of the mobile gaming they just consider the way they have played and the games that they are accustomed to, so they aren't giving a chance to try mobile gaming and just giving their thoughts on the game before even playing the games. (Banerjee, 2020)

People actually like to game and try gaming and that can translate into a huge potential in mobile gaming and its growth. People can have interests of their own when playing, but even though they can't play at ultra-high graphic they still can find enjoyment in mobile gaming and that is why for the market in 2019, mobile gaming made 60% revenue of all videogaming. So mobile gaming has potential if it is done right to be popular for people that play video games. (Banerjee, 2020)

3 Methodology

3.1 Industry analysis

The gaming industry increase can be compared to the moment of history when the movie industry and tv industry had their golden age, and people were interested in both movie screen and tv. Gaming industry budgets have grown huge in the last years and many famous actors have either gotten their own character in-game or they have voiced a well known character in the videogame industry. Gaming companies have started to collaborate with the music industry and with movies, scriptwriters, famous book writers, making the gaming industry have also many patents in technology and videogame manufacturing making the industry grow fast. (Williams, 2022)

Covid period has put its print on the videogame industry, which made it outgrow more than the movie industry. Videogame market generated in 2020 an amount of 177,8 million dollars in revenue and the growth doesn't end there because market specialists are expecting

steady growth for the market that in 2024 the market will generate 219 billion dollars.

(Williams, 2022)

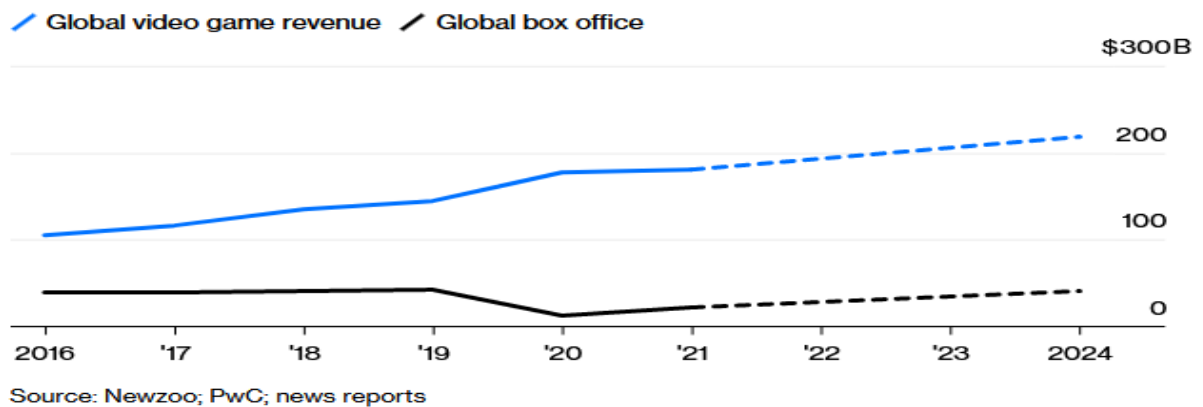


Figure 1. Video gaming revenues (Williams, 2022)

The videogame market has been gaining variety in the last years because of people's interest in different kinds of new games. The new game developers coming to the market the growth of the popularity of indie game studios and their games and also the creation of new platforms has influenced this change. Gaming has become more digitalized and selling games in the digital marketplace has become more popular; mobile gaming with their free games with in-game microtransaction, skins purchase and “game time” purchasing and cross platforming has become more popular, as the pc gamers can now play with their friends that have PS5 and Xbox while also introducing games on different platforms such as YouTube and Twitch have made the industry grow and gain more popularity. The even more professional gaming “e-sport” has brought people interest. (Williams, 2022)

Twitch is a streaming platform where most of the users are gamers. People stream their first impression of the new games and also the games that they like as a profession and people that have gone professional at these “sports” show their skills, practice their skills for tournaments and plan their strategies. Twitch platform also has game developers and publisher as members showing their games. Twitch had a number of 1.3 million watchers in 2019 and when the pandemic hit, in 2020 their viewership grew to 2.1 million showings the increasing popularity of videogames which by 2022 are estimated to have a viewership is of 2.9 million people. This shows that people are interested in watching their content creators playing their favourite games and showing that people are interested in watching

professionals playing their games and hoping that they can be as good as they are in the future and make money as they do play video games. (Williams, 2022)

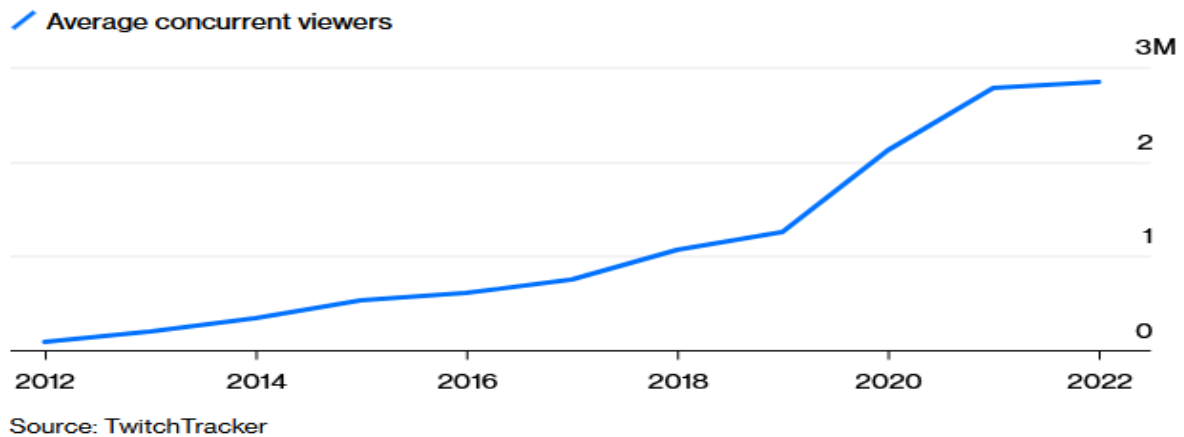


Figure 2. Average number of viewers (Williams, 2022)

The mobile gaming industry has grown a lot in the last years because mobile technology has also evolved over the years making games be played more easily. Due to this development many big companies like meta and Instagram have talked about their interest in mobile gaming and started developing games that help them in their marketing campaigns and bring more interest to their platforms. But also, big videogame developers are interested in the company Blizzard, which announced in their own gaming event at Blizzcon that they are going to bring AAA title “Diablo” to mobile phone. This announcement didn’t bring enjoyment for their hard-core fans who booed but it brought interest from Asian market who are avid mobile gamers. (MarketWatch, 2022)

Mobile gaming is popular in Asian countries, where 55% of the video game industry revenue in China is from mobile gaming, while in the USA 35% of the video game industry revenue in 2019 is from mobile gaming. (MarketWatch, 2022)

3.2 Mobile gaming industry analysis

In 2007 Apple stores and Apple mobile phones changed the gaming market because of its touchscreens, which made gaming on phones more easily and mobile stores made easy the paying concept change from “buy once” to microtransactions and other buying concepts. And also because of Apple phones were being more modern the hardware capabilities didn’t

cause much of problems anymore and it made their competitors step up on the market, like Google opening their own android store. (Proreviewsapp, n.d.)

Hardware improvements have given more tools for mobile game developers to improve their games and make different types of the game according to the customer's needs because at the beginning the games were simple puzzle and platforming and 2d games. Now there are over 6 million apps and most of them can be found on: "Google Play" (which has 2,57 million apps) and Apple (has 1,84 million and 669 000 in the Windows store and 489 000 on Amazon). But Google and Apple are considered holding the biggest share in the industry and even although there are a lot of apps, not all of them survived this year. The only big survivors from the past are "Angry Bird" (released 2009), and "Plant vs Zombies" (released 2010) (Proreviewsapp, n.d.)

Bigger companies have been more interested in the mobile gaming market and started to release their own games to the mobile market. The company "Epic" released their popular game "Fortnite" to the mobile game platforms and also "Riot" releases their popular "MOBA league of legends" to compete to Chinese gaming phenomena "Arena of Valor" which is one of the biggest games in China with 11 billion dollars generated. This kind of interest in bringing PC/console games to mobile games has only become more popular when 2019 corona hit the world. That's the reason why many other companies have turned their games to mobile market. It has brought some mixed feelings for the gamers, that developers are bringing their games to the mobile market and are developing mobile games instead of consoles and pc. This also has scared many players that love different certain franchises of games like "League of Legends" that they shut down all the support of the "console" and pc. Also, games that are "ported" to mobile usually have microtransactions or some kind of other methods that prevent person playing if they don't pay for their playing time on mobile. (Proreviewsapp, n.d.)

Gaming market has changed because of mobile technology evolving. Games having a high-quality graphics and games having interactions and story have started to reach the same quality as pc/console games. Also, the evolving technology evolving made the mobile phones be less expensive, which in return made the mobile game industry grow in these past years.

The mobile gaming trends have reached big proportion in India, China and New Mexico and 5G coming in horizon it's going to grow the industry more. (Global Industry Analysts, 2022)

In 2020 mobile gaming market was estimated to be 94,8 billion dollars and mobile gaming market is projected to reach 139,5 billion dollars in 2026 and ingrowing of CAGR (compound of annual growth rate) of 11.5%. (Global Industry Analysts, 2022)

USA market is expected to be in 2022, of 20,3 billion dollars and China being the second largest economy is projected to reach 43,4 billion USA dollars at the year 2026. The other interesting to watch evolutions are in Japan which is predicted to grow by 11,6% and Canada by 9,7% until 2026. In Europe, the German mobile gaming market is expected to grow by 9,3% until 2026 also. The biggest focus is on India because it is estimated that people are going to spend more time gaming there and that's why India could become the fastest growing mobile gaming markets in the world. (Global Industry Analysts, 2022)

Chinas has 665 million players who are spending 43,6 billion dollars on videogames and the biggest portion of this money is spend on mobile gaming - 32 billion dollars as of 2020. Which is slight increase from 2018 when 619 million people played games and the industry generated 37,9 billion dollars out of 23 billion dollars was spent on mobile gaming. (Says, 2021)

The reason for mobile gaming being so prevelant in the Chinese market is that people arent ready to pay huge money for gaming pc and consoles but also the lack of time dedicated to that. So mobile gaming is more of a convenience thing for chinese gamers. (Global Industry Analysts, 2022)

Tencent is a huge Chinese videogame making company has huge interest in the mobile gaming and helped it grow. A hit product of Tencent is "WeChat" which is big social media platform. This product works as a shop and place to make connections with the players, who could talk to their friends at games and with others playing the game. In 2015 "WeChat" had 600 million using their service every month and only 70 million of them where not living in China and they have grown to having 800 million monthly users meaning that "We Chat" is

China's biggest social media platform and is considered being one of the most popular social media platforms in the world. (Denton n.d)

"We Chat" has its own minigames inside of the app and 2020 there were 500 million people playing their minigames. People using the app spend 36,6 billion dollars on these games in 2020. This kind of service and revenue model also interest Instagram and Meta and that's why they have started to study this social media and games combining market.

(Biondi, 2021)

Out of the people that are usually playing on their mobiles. 50% use Apple store 36% use "Google Play store" and 14% is from other sites and apps in USA and the biggest developers are "Playrix" with their puzzle and farming games and "King" with their hit game "Candy crush" and "Roblox". That are most downloaded games with the platforms showing that people are playing the same games even though they use different platforms to download these games. (Clement, 2022)

Different age groups have different number of people playing mobile games. The biggest age group that plays mobile games are 25-34 which is 35,3% of the players and next following that is the age group of 18-24 which is 24,9% of all the players playing games and following them almost the same percent is the age group of 35-44 with 23.00% and 45-54 have 12,9 and 55-64 have 3,8%. Showing that teen and people that are in the working life are as much interested in the mobile gaming. Also, it's estimated that in 2021 the people that were playing mobile games belong to the one with high income. USA is estimated having the biggest "penetration rate" 2021 (46,8%) followed by South Korea with (44,9) and one of the biggest mobile gaming industry China with (38,8%) (Clement, 2022)

Mobile gaming community is set to grow in 2020 to 2,6 billion players and the growth will increase towards 2023 when the gaming industry is expected to be the fastest growing market and that will generate 200 billion dollars. In 2020, the mobile gaming market generated 77,2 billion dollars and for 2021 it is estimated that mobile gaming is 59% of all game industry generated value. (Clement, 2022)

3.3 Mobile gaming audience

Mobile gaming industry has created a new type of gamers that are called “casual gamers”, These people are players that play the game once a week or rarely monthly or when they are bored, and these people have no interest in the game itself they only play some game they have seen in advertisements or have heard from their friends or other sources and this why some people don't call them “gamers”. But to mobile gaming developers this “casual gamers” audience has increased their customers base and made their focus shift towards making multiple games where person can spend few hours instead of game with a huge content. (Clement, 2022) That is why casual gamers have become more interested in mobile gaming because these games are easy to play and easy to get in to and the games are having no story and they can get in and out of the game and still remembering what to do in the game and how it works. Good example of this is “Candy Crush” and “Clash of Clan”. (Adjust, n.d.)

People downloaded in 2018 a lot of casual games there were reported that 17,6 million people downloaded casual games daily and tried them out and its 12,5% of all mobile games that were downloaded. The genre had 80% growth because of corona virus period and people staying at home, but the problem for the future is if people will keep playing casual games, or if these type of games will have a long-life span in the industry. (Adjust, n.d.)

“Casual gaming” is thought to be more of a women interest, as 55% of total players are women from the casual gaming audience, which shows that gaming has become more popular within a different range of players, in comparison with the past where gaming was considered to be only of teens' interest. 45% of USA gamers are considered “casual gamers” and people that are “hardcore gaming” are 20% of the gaming population. (Adjust, n.d.)

Several studies have shown that out of 17 million people that are playing videogames 8 million are women and that in USA, there are 211 million people playing games, out of which 100 million are female, which shows that percentage of 46% of the videogame player base is female. (Cieślak, 2022)

Mobile gaming spending had increased in 2021 by 25% when compared to the previous year and mobile platforms like Google Store have made 13 billion dollars from it and Apple with 9,2 billion dollars and in 2020, which shows that 38% of mobile gamers were willing to pay for their mobile gaming. The reason for it is that they can just try the game and delete the app after, as customers usually regret buying the game later on 33% of the women buy their games instead of playing games free and males do the same portion of 52%. But females are more likely to spend money in the games. 4,5% of females spend money in game in comparison to only 3,3% of males. This is showing that women are most likely to spend money for in game skins and microtransactions. Staying at home has increased these numbers and that's why mobile gamers spend 22,2 billion dollars on mobile gaming at 2021 (Andre, 2022)

Study was made amongst mobile gaming parents to see how their 6-15 years old spend money at mobile gaming and what they think about their children using money. 31% say that the kids spend money for "Fornite" showing its popularity on young gamers and 50% do not allow their children to spend any money at mobile games compared to more than 40% who allow them spend money and 31% authorized their kid to spend money. So, this shows us that the 40% who allow their kids to spend money is trusting them to not spend over the 10 dollars limit they have told their children and still have trust. But also, it shows that mobile gaming is becoming more a wealthier family platform because 23% of parents is letting their child spend 50-100 dollars a month in the games. But the interesting fact is 67% of the parents are scared their child would spend more than they should and the same time 4 out of 10 parents want to have refund of how much their children has use money on mobile games and this show either parents don't care how much their children spend on mobile game, or their children have kept their promise and they haven't spent over the limit they have talked with their parents. (Andre, 2022)

Mobile gaming is the only industry that corona didn't affect that much but also this industry got more growth during the pandemic, as 70% of the players spend more time playing mobile games and 65% of the player say they play longer time than usually because of the pandemic made them be at home. Google also reported that they notice that mobile gaming sector got 10% of growth during the pandemic and people download more mobile games. This is especially the 25-34 age group where 45% of the age group both more games and

played them on their free time and 36% of the gamers that had played games for long time return to play their old games with, they spend many hours playing before they quit and that's why 49% of them wanted to experience the nostalgia with the game that they played before and that's why wanted to play it again 5% of the people wanted to try the same games that they friends played at the mobile or got recommendation from YouTube and that why 2021 the player base had 14 billion people playing or had download mobile game to their phone. (Andre, 2022)

3.4 Asian mobile gaming market overview

Asian mobile gaming market is expected to reach 100 billion dollars in 2025 and Asia has seen an increase to more than 60% of the people compared to European market, that play mobile games because of home lock downs. Corona period made so that in 2 years the revenue of mobile gaming market in Asia has increased by 46%. This number increased the spending on the mobile gaming from 46,5 billion dollars in 2019 to 68,1 billion dollars in 2021. There was 780 million people playing mobile gaming in Asia 2021 and it's expected to increase by 25% in 2023. These numbers are increasing more each year and the trends show that over a billion will be playing mobile games in Asia market in the following years. Japan is the second biggest mobile gaming consumers in Asia and Japan has already generated 11.6 billion dollars in 2022. (Burak, 2021)

In Asian region countries biggest mobile gaming countries are South Korea, China and Japan, where China leads this mobile gaming trend. But in Sout East Asia there are countries with unique trends with the mobile gaming ecosystem, and they differ from each other, and each country have their own are of interest. Minigames in mobile apps have increased the growth of mobile gaming market. (Burak, 2021)

In southeast Asian gaming market generated 4.4 billion dollars in 2019. Mobile gaming is much bigger when compared to other gaming options. 80% players of Southeast Asia are mobile gaming and pc gaming type. The statics show that 69% people are playing with their pc setups and 57% are playing console games. Accessibility and the ruralness is helping mobile gaming more in Southeast Asia, due to the fact in some countries it's a necessity to have mobile phone so it's easy to play games using them instead of the consoles that cost a

lot of money, especially in such countries where people don't make that much money.
(Weustink, 2021)

Media and other news sites are trying to say that only young males are playing videogames, but studies show that 77% of females play also mobile games and that is 6% difference when compared to males where 83% of males play mobile games showing that females have also interest in mobile gaming. So, the idea of gaming being only male oriented is just something that media has no valid sources to. (Weustink, 2021)

Mobile gaming is growing in popularity every year on the Asian markets. Because internet becoming more affordable in less wealthy Asian countries the mobile gaming market is starting to grow more every year. (Weustink, 2021)

Asian mobile gaming market can be seen as a different trend than the usual where women spend more money to games than males. Studies also show that in Asian market 95% of mobile gamers have spent money in game past year, showing that the free to play mobile game are profitable in Asian market and the release companies do make money. (Weustink, 2021)

Mobile gaming in Asia has a huge competition with regards to which companies' games people are playing and who get the revenue of customers playing mobile games. Asian being one of the biggest markets for mobile games also have huge and small companies competing all the time. Tencent is the leader of mobile gaming in Asian region. Tencent is company that started to operate in China when it was first found, and it has gain popularity in the year which has helped the company to grow to be one of the biggest gaming companies in the Asian market. "Zynga", "NetEase", "Nexon" are trying to compete again Tencent and take markets shares from the mobile gaming while making Asia having highly competitive market for mobile gaming. (Weustink, 2021)

3.5 Finnish Mobile Gaming Market analysis

Studies show that reportedly 62% of Finish videogames companies are creating mobile games to android platform. So, out of 100 games created every year most of them are

mobile game and the others are PC games. The industry has 3600 people working at videogame industry at the moment and 22% of them are women, 28% are foreigners (gender ration isn't exactly known) and 50% are Finish males. (Tara, 2022)

Helsinki is the capital for Finish videogame companies. The city has 50 Finish game companies and most of the fame games were created in Helsinki in these companies. "Alan Wake" and "Max Payne" console games are well known in the world and people have been wanting a sequel to these games. Also, the fame that these have gathered over the years have made so that over 1 billion people have some time in their lifetime played one or multiple games made in Finland from either knowing or not knowing about that. (Tara, 2022)

Most of the game's companies in Finland are specialising in creating some type of mobile game, as the cost of creating a mobile games are much lower when compared to creating AAA title; also, if the games are going to fail the loses are ten times lower than with AAA labelled games. That why mobile games are considers being the steam in the engine that keeps Finland's game industry going. Because they don't have to invest much money on the games and also, they don't need much from other investors. Also, mobile games are considered being more accessible and convenient so that is also a reasoning why Finish companies are creating mobile games. (Tara, 2022)

"Supercell" is one of the biggest mobile gaming brands created in Finland and they have their office in Helsinki. Supercells famous two hits are "Clash of Clans" and Clash Royale" which are top 10 on the game charts of 77 different countries in the world and both are financial successes to the company. Both games are free to play games that have in game purchases that help the growth of these games and also free to play market popularity has helped the growth of these games. (Tara, 2022)

Mobile gaming in Finland is following the success of Rovio's "Angry Birds" with the free to play game which penetrated to the market and make way to finish mobile gaming industry. Others have followed Rovio's example of making the game free and having some kind of in game way of making money out of the game either in game purchases or a "stamina" system where your play time is limited so you have to wait or pay to get access of it faster. This way has become more popularities in the year. This has helped in Finland becoming one of the

top countries where free to play mobile games come from and they have gained recognition from this. (Tara, 2022)

There were 2.8 million games played in Finland in 2020 out of which 86% of them were mobile games and 77% play which show that mobile games are popular in Finland, but fins spread to different platforms and use multiple platforms to play games. Also, if one looks at the partition of the genders in playing mobile games, 93% of females play their games on mobile and this shows more on the idea that female play more on mobile. Because 68% of females play pc games and 68% play also console games so when compared to mobile gaming it shows that 25% of females are more interest in mobile games than other games systems. Males are different compared to females their most popular platform used for gaming is Pc with 84% and mobile gaming is tied with console gaming with 81%. (Elliott, 2021)

69% gamers in Finland said that they have bought something in the game. 32% out of them were females and they usually used the games' own currency to buy either a skin or more time to play the game, while only 17% of males used money in the game but didn't do any other purchases in the game. (Elliott, 2021)

Studies also showed that with regards to the mobile games, when players were asked of the choice of game. 36% of the female answered that are playing "Candy Crush" which can explain why females chose to buy money in the game as within it, one can have 5 lives and after one uses them, they have to wait 30 minutes to get a life back, but if one buys in game money or items, they get them faster or instantly. Males other hand played pc/console game "GTAV" which have some microtransactions, but they are not needed to play the game and one does not have limited play time (Elliott, 2021)

The biggest age groups that play mobile games in Finland are: 25-34-year-olds (34,9% of people that play mobile games in Finland) followed by the age groups of 18-24-year-olds (with 24.3%) and 35-44-year-olds (24.6%), which shows that the age groups are quite equally represented, with small differences of around 0,3% in the number of mobile games players. This shows that teens aren't the biggest consumers of the mobile gaming. The studies show

that the biggest consumers of mobile gaming in Finland are people at working age. (Elliott, 2021)

4 Results

This part of thesis is for containing analysis and also information from the webpoll that the author created to support their thesis analysis.

Webpoll contained 12 question about mobile gaming focusing on whether do people play them or not. The webpoll questionnaire was short and it could be easily answer in 5 minutes.

4.1 Webpoll result and analysis

The observation method used to get answers was webpoll, so a questionnaire was sent to people through email and a link was shared with other people to get an answer. Questions were answered by 34 people 14 where female and 20 of them were male. So equal gender ratio could not be reached, and it can be considered a limitation in the analysis. Another limitation in that only 34 people answered the webpoll so there where limitation in people that answered the question if there was more people there one can see more diversity of the answers.

1. What gender are you?

Number of respondents: 34

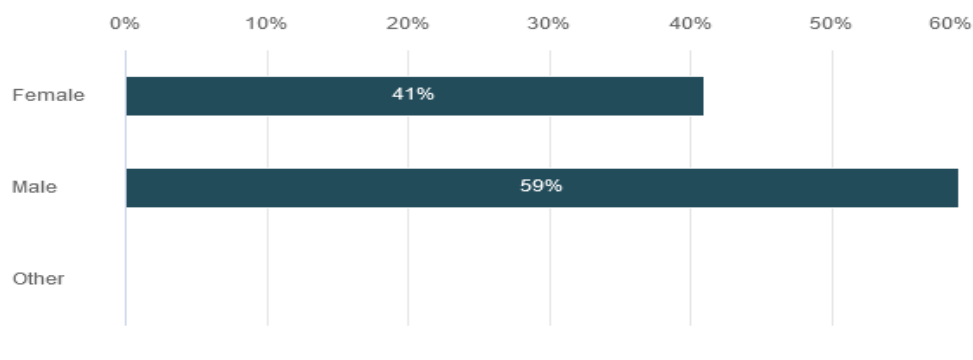


Table 3: Gender of respondents

2. What age are you?

Number of respondents: 34

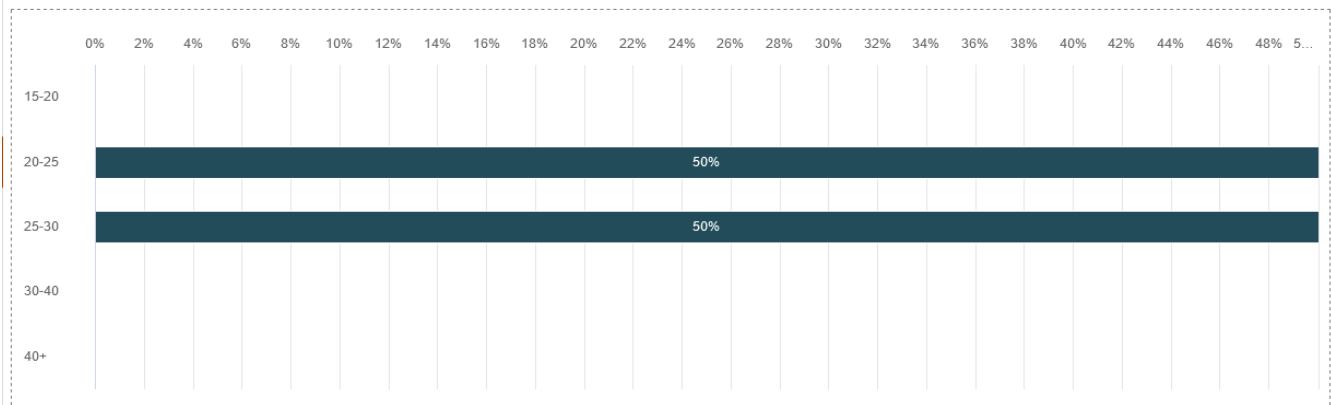


Table 4: Age of respondents

34 people that answered were 50% each in the age groups of 20-25 and 25-30. and from these age groups, 30 people answered that they are playing mobile games and 4 say that they aren't playing any mobile games. This shows that mobile game is popular with both males and females but also 88% of the people who answered have said that they play mobile games also female popularity can be seen when the answer because only 4 persons answered that they don't play mobile games showing that males are not the only ones that like to play mobile games.

The mobile game's popularity can be seen being people in the age group of 20-30 years old. People showed interest in mobile gaming and say that they play some kind of mobile game in their free time and are willing to play mobile games. Mobile games are usually said to be for "young people" as mostly all games are usually for the ones under the 20-age group. But this data shows that it is popular among older people that are in working life or in university that are playing mobile games in their free time.

There was a lot of divination with how many minutes in a day answerer is playing mobile games in a day. The most popular option for people that answered was they are playing 15 minutes a day playing mobile games. This was a surprisingly low results, when considering how many people are playing other games.

4. How long do you play mobile games in a day?

Number of respondents: 34

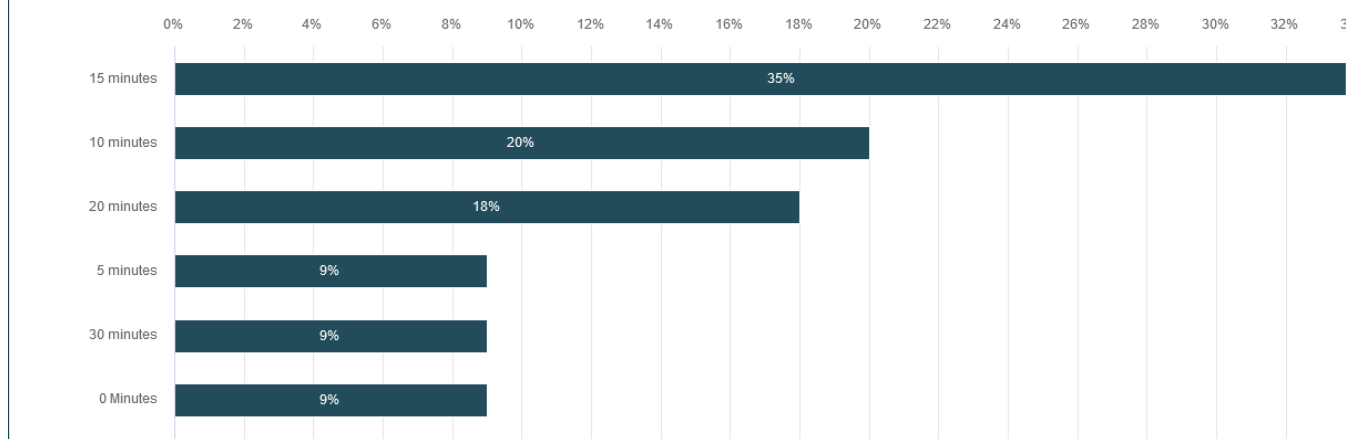


Table 5: Average time spent on mobile gaming

3 people only said that they play 30 minutes in a day and 0 said that they play over 30 minutes this was the biggest surprise. Because there were more expectations that more people play 30 minutes a day mobile games than other people that have studied have found, this can show that people have busier life that answered the questionnaire or that they were not willing to admit that they are spending 30 minutes playing mobile games in a day.

Another popular option that people liked to answer was that they play 10 minutes a day 7 people answered this and 20 people answered that they play 20 minutes a day mobile games. This was also a little surprising that some mobile gamers only play 10 minutes a day mobile games.

The next question was: "What made you play mobile games?" this had multiple answer options so people that answered could choose more than one option when they answered the poll.

The most popular answer was "Find it yourself" 28 people chose this answer and it's really interesting that people find with their own accord the games they like to play. So, this tells that people are so much influenced in by advertisements that they can see on social media and other media like YouTube and twitch adverts for different kinds of mobile games all the time or they didn't notice that advertisement was affecting their purchasing.

Because people answer the poll no one answered that “advertisement” was the reason they downloaded or purchased the game that they are playing. It’s usually said that advertisements have either conscious or subconscious effects on people's purchases and influence either people to try the games or at least have a look at what the advertisement is all about.

9 people answered that they got their game recommendation from their friend. It’s usually the case that people recommend some games to their friends and after that, they try the game because they trust the people that recommend games to them and the reason why people recommend games to friends is that they can get benefits from the games if they get friends to try the games or people want other to play games with them so they have someone they can also talk about the games.

7 people answered that they saw someone playing the game. So, these people either watch a YouTube or twitch video of people playing the games and advertising this or they saw someone close to them playing the game and were interested in trying the game. So, people saw that they thought that this game is very fun and interesting and downloaded and tried the game of their own interest. This answer also includes if they saw “YouTube” or “twitch” streamers advertising the game on their streams and videos that the creators that the person was watching have created.

This can be seen very common practice in mobile gaming where game creators hire people to play their game on video or at a stream to their followers and try to get them to download the games and the video creator get some kind of commission of the games, so this wasn’t very surprising to find out that some of the people that answered were influenced by other to download the game and trying it out after seeing it.

4 people said that they found out about the mobile game that they are playing in other ways. So, they either found it by playing games and the game suggest the game that the person should play, and they decided to try the game or checked the reviews of the game of certain category and decided to play the game that had the best reviews and decided to try

it and see was it really that good or read an article of mobile games that are published by a game journalist.

Question number 6 was about if the person who answers the questionnaire had spent any money on mobile games and how much they have spent was the follow-up question. 32 people answered that they don't spend money on mobile games and 2 people said they did but they didn't want to answer how much they have spent on the game.

People don't usually want to say how they spend on mobiles games so this wasn't so much different people usually might spend a lot of money on games and they are not proud of that and usually people think that spending money on games means that person to have a lot of money even though that is not true in most cases. But people like to be private about their money spending and this is shown in the data that people are willing to say that they have spent money on mobile games, but they don't say how much they have spent on games. Also, there were some interest finding out if there is players that are categorized as "whales" who are ready to pay anything to play the games and uses money to play just for fun.

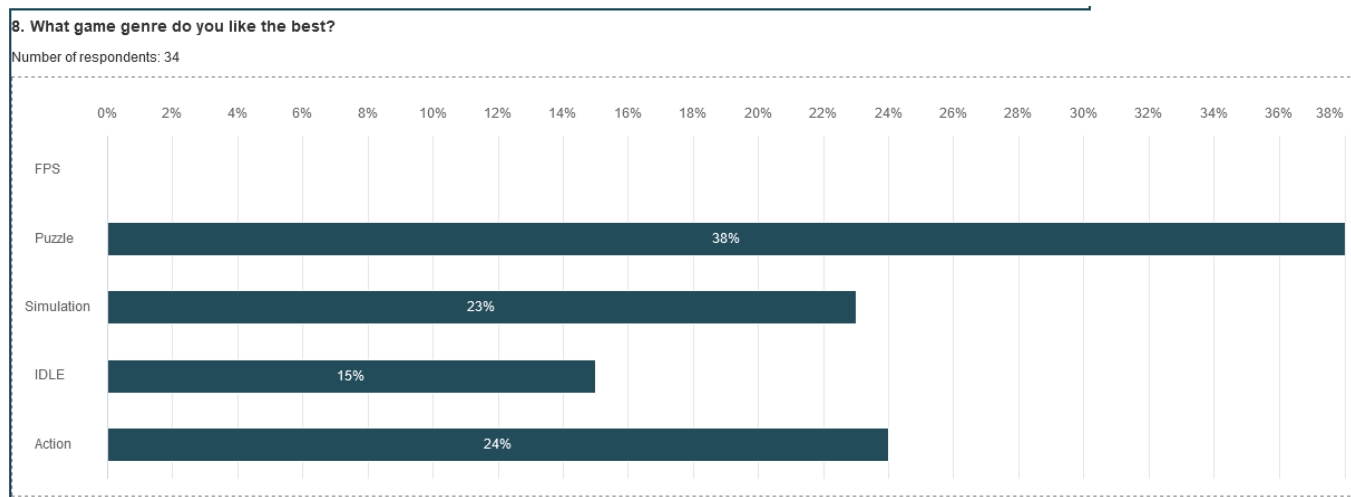


Table 6: Choice of favourite games played

The next question was "what is your favourite genre." most popular answer was puzzle games 13 people answered that they like playing puzzle games and it's considered to be one of the popular genres.

“Candy Crush” is considered to be popular with females and it being a puzzle game can show popularity in the question but also games created in Finland “Clash Royale” and “Clash of Clans” are also part of puzzle games and are very popular games with male players around the world that can explain why puzzles are at the top and also explaining why the question (“how much time you spend playing mobile games in a day”) was so low.

“Candy crush” person solves sense a puzzle and does the quest that is at the side of the screen and person has 5 lives and after you use them you have to wait for a long time until you get them back.

“Clash of clans” is a puzzle game in the sense that you create your own army to fight with other people and their defence and it takes resources and time to get those resources to create a bigger army.

This is very common in the puzzle game category that person has to wait a certain time to get either “lives” or “material” to continue the game so usually, players just log on to the game use the resources they have, and either wait when they get the max material or continue the game when they have time.

Simulation and action games were second most popular with 8 votes each. This isn’t that surprising after puzzle game simulations are considered very popular with people, especially the “story” type where people can choose options that they want to answer to a person and create their own story inside of the game.

Action games have always been popular with mobile games and some big companies have created their own version of mobile games from pc games like “league of legends”, so this isn’t a surprise that people are playing actions game with their mobile phones and these types of games keep their popularity with people because of how much they have changed in the years.

5 people answer they like idle games. This can also explain why people aren’t spending much playing mobile games because in the idle games the gamers literally plays with themselves. These games of games are for players that like to just visit the game and let the game itself

gather the material so the player can spend the material to make the game easier and open more options on the game. So, people answering that they play these kinds of games are very common and because this gender has created a fandom that people like these games because the person don't have to focus so much on them, and they can keep them running while they make a call or talk with their friends.

0 people answered that they play FPS (First person shooters). This was very surprising that no one have answered they are playing FPS games even though their popularity has been increasing over the year. Games like "BUG" and "Fortnite" have been bringing people to play FPS games on mobile phones when the pandemic was happening so there were some expectations that at least 1 person would be playing these kinds of games.

The next question people were asked was, "do you hate mobile games?" 11 people that answered the question answered the "do not want to answer option". So, these people might have no problems with mobile games that they want to say about and are willing to tell or they have some problems, but they don't like to tell why they have problems with mobile games.

1 person answered "they don't like if the mobile game is predatoriness" meaning that the mobile game forces one has to spend real-life money on the game example is locking certain things behind of "pay wall" meaning that the person has to pay to get these things and the game is still trying to get more money from a person. This has been a big complaint within the mobile gaming market so there were expectations that someone answers this, or many people chose this as an option.

1 Person answered that "they don't have time". that is very understandable depending on person life there might be not time to try mobile games, or the person just don't have interest in trying mobile games because they think it will take all of their time from the day and the games can be addictive.

Question that people were next to ask to answer was: "are you addicted to mobile games?" 31 people answered they don't have an addiction. This can also fall to the thing that people aren't willing to tell if they have an addiction or not. People usually don't tell these kind of

things or they don't notice them from themselves, and this why can also answer that they don't have an addiction.

2 people didn't want to answer the question. Which is very also normal with this kind of question. This can be for many reasons such as the person doesn't want to answer because they think it pointless to answer or they don't think that they have any problems with gaming and that why don't answer or don't want to tell that they have problems playing mobile game and they are addicted to them.

Next question was "is good mobile phone needed to play mobile games". 22 people answer that no it isn't important. Data has shown that usually people thing this way and this also proves that it doesn't need to be the news phone of the shop to play mobile games its more on the internet connections that is needed to play games

8 people answer yes, it is important. There was some expectation that people answer that they think that it's important to have good phone to play games it's the same with the "PC" (personal computer) gaming people need their "equipment" to be best at the market.

12. Why do you play mobile games?

Number of respondents: 33

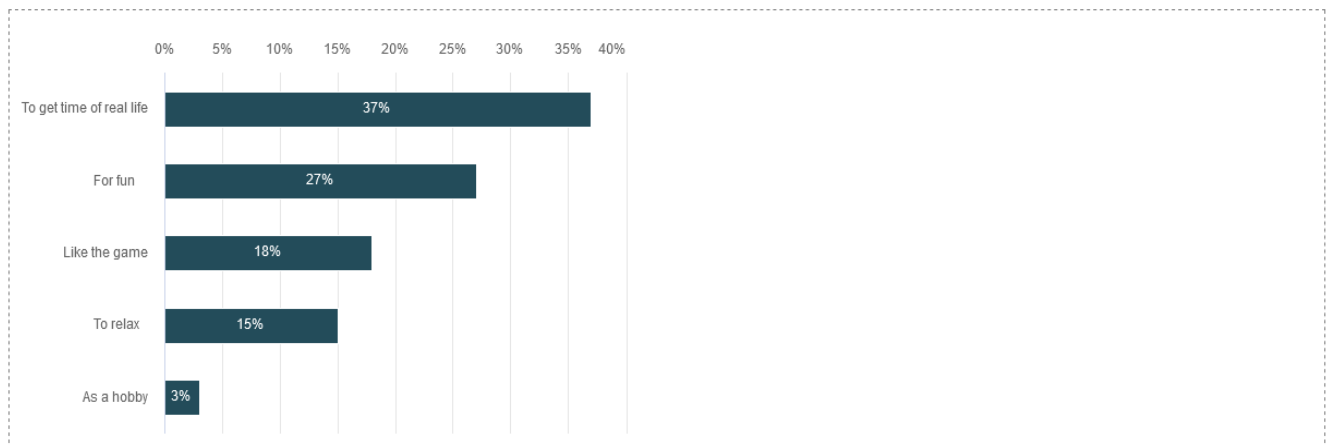


Table 7: Reasons behind choosing to play mobile games

The last question for webpoll was "Why do you play mobile games" most people answered that " to get time out of real life" 12 people answered this. Studies have shown that this is

very common answered between people when they are answered why they play mobile game and there was no surprise in here why this became the top.

Second most popular option was “for fun” people are usually answering this because they feel they get some enjoyment out of mobile games when even playing little amount. But there are some cases where games can be frustrating and cause some kind of hate towards game if the game is too hard or it has some kinds of “mechanics” that take all enjoyment of the game from the player.

6 people answered, “they like the game”. This has been considered being one of the most important quality of gaming because why would person play the game if they don’t like it? Also, there can be connections with addictions to game because when people like playing game they don’t notice how much time they play the game and use a lot of their time in the days playing the game, but they don’t notice either what happens around them. But also, there is good thing that people play moderation on the game they like, and it brings enjoyment to the play who plays the game because it’s something that they wait to do in the day, and it bring “enjoyment” and “happiness” to the person life.

5 people answered, “For fun”. People usually answered this because the games bring something to their day. Usually, people call game fun because they use only some things to the game and not that much. People to fun concept is that the game is little distraction from their daily routine these players don’t usually play the game long and not play it frequently, but some people also play frequently so it depends on person and how they thin what is “fun”.

Only 1 person answered, “as a hobby”. This didn’t surprise because rarely people call their hobby mobile gaming, or they don’t think it as one. People usually think that gaming is something they usually spend many hours playing, but they don’t notice that it can be also called as a hobby.

Conclusion

The mobile gaming market has become one of the biggest video game markets in the world and Asia, especially China is one of the front runners for this market, this is why mobile gaming is going to have a bright future if it is done right. Digitalization hardware and game development help the market grow immensely and help with the problems that people are having with mobile gaming, but things like microtransactions options that like “predatory” take a lot of money from people and might slow down people from trying games, especially seeing after how “Diablo Immortal” wanted players to spend thousands of dollars to play the game like explained in thesis might make people unfordable to play mobile games, especially the game that was created from AAA publishers.

The research question that was explained at the start of the thesis was “What kind of state mobile gaming market is in at the current moment?” and the sub-question “How popular mobile gaming is in the Asian market?”. The question has been answered very detailed in the thesis with many examples and observing the reasoning how mobile gaming is doing at the moment and how mobile gaming has grown in the years.

The chapters explain to the reader about the industry and the reasons what is happening in the mobile gaming market and how it is doing at the current moment and also look for the future that professionals are expecting to happen in the market. The second question is also answered in the own chapter and explained well with the information that could be gathered with the subject so that reader has easy to understand it.

There is no doubt that mobile gaming is a becoming big thing, and it has had a big growth potential that’s why pc and consoles and other media have noticed this and started to relate to their own mobile games. These people are taking notes from other fails and successes and trying to create their own plans to enter the video game market.

Industry is growing and changing all the time and the future might change so some parts that are estimated here for the future might become false, thus what was researched within the thesis depends on the industry itself, but this will not affect most of the thesis’ results, as the most majority of it will hold true in the future. If someone is interested in taking this

further and investigating more thoroughly, it is recommended to have a bigger group of respondents to the questions.

5 References

- Andre, L. (2022). 55 Mobile Gaming Demographics Statistics: 2022 data on Market Share & Spending. Financesonline.com. Retrieved April 29, 2022, from <https://financesonline.com/mobile-gaming-demographics/>
- Adjust (Director). (n.d.). adjust.com. Retrieved October 1, 2022, from <https://www.adjust.com/blog/your-guide-to-mobile-game-marketing-in-2022/>
- Adjust. (2022). Best practices for mobile game marketing in 2022 | Adjust. Your Guide to Mobile Game Marketing in 2022: Key Insights and Best Practices. Retrieved October 3, 2022, from <https://www.adjust.com/blog/your-guide-to-mobile-game-marketing-in-2022/>
- Banerjee, R. (2020). Reasons why PC and console gamers hate mobile games so much. GamingonPhone. <https://gamingonphone.com/editorial/reasons-why-pc-and-console-gamers-hate-mobile-games/>
- Beattie, A. (2021). How the Video Game Industry Is Changing. Investopedia. Retrieved October 1, 2022, from <https://www.investopedia.com/articles/investing/053115/how-video-game-industry-changing.asp>
- Biondi, A. (2021). Can luxury brands crack wechat mini games in 2021? Vogue Business. Retrieved April 20, 2022, from <https://www.voguebusiness.com/technology/we-chat-mini-games-burberry-dior-livestreaming-monetisation>
- Burak, A. (2021). The Gaming World's largest growing market is Asia: Mobicrunch. Game Industry News. Retrieved August 7, 2022, from <https://mobicrunch.biz/the-gaming-worlds-largest-growing-market-is-asia/>
- Chikhani, R. (2015). The history of gaming: An evolving community. TechCrunch. Retrieved March 22, 2022, from https://techcrunch.com/2015/10/31/the-history-of-gaming-an-evolving-community/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAMKMwwXi8ENHG7AaPQ4YxgnqE PKjTJi3ggrau9h8ohh2FkdHewRI7vPCR6eY16bFhmCvd8JJT6hBzba3TzDbXsJJucZeXKb4Z9h87-cOx3MVdXAXV2P20OvDxKqbBd6eJdWEOo5n-2M2C4FWp08p1--LABssB_SrGLZDVpSpg7t
- Cieślak, K. (2022). REPORT: Women and games – how do modern female gamers play? Try Evidence. Retrieved October 1, 2022, from <https://tryevidence.com/blog/report-women-and-games-how-do-modern-female-gamers-play/>

- Clement, J. (2022). Playrix most downloaded games 2021. Statista. Retrieved April 24, 2022, from <https://www.statista.com/statistics/1221267/playrix-most-downloaded-games/>
- Denton, M. (n.d.). Wechat and Tencent China have taken over the world with games. Make a Video Game in Minutes Not Months. Retrieved April 20, 2022, from <https://www.gamify.com/gamification-blog/chinas-wechat-and-how-over-50-million-plays-per-day-suggests-games-work>
- Dowd, T. (2022). 'Diablo Immortal' Shows Self-Regulation Is a Failure in the Games Industry. Vice. Retrieved September 2, 2022, from <https://www.vice.com/en/article/5d3pex/diablo-immortal-shows-self-regulation-is-a-failure-in-the-games-industry>
- Elliott, R. (2021). Data and insights on Finland's games market & its gamers. Newzoo. Retrieved August 6, 2022, from <https://newzoo.com/insights/articles/data-and-insights-on-finlands-games-market-its-gamers>
- Fortunebusinessinsights. (n.d.). Gaming Market Size, Share & COVID-19 Impact Analysis, By Game Type (Shooter, Action, Sports, Role-Playing, and Others), By Device Type (PC/MMO, Tablet, Mobile Phone, and TV/Console), By End-User (Male and Female), and Regional Forecast, 2021-2028. Fortunebusinessinsights. Retrieved October 3, 2022, from <https://www.fortunebusinessinsights.com/gaming-market-105730>
- Foey, Y. (2022). Report: EA Admits Battlefield 2042 Failed To Meet Player Expectations, Blames Halo Infinite and COVID. IGN Nordic. Retrieved October 1, 2022, from <https://nordic.ign.com/battlefield-2042/53951/news/report-ea-admits-battlefield-2042-failed-to-meet-player-expectations-blames-halo-infinite-and-covid>
- Grandviewresearch. (n.d.). Video Game Market Size & Share Growth Report, 2030. Transparency Market Research. Retrieved October 14, 2022, from <https://www.grandviewresearch.com/industry-analysis/video-game-market>
- Global Industry Analysts, Inc. (2022, March 11). Global Mobile Gaming Market to Reach \$139.5 Billion by 2026. Pr Newswire. Retrieved October 14, 2022, from <https://www.prnewswire.com/news-releases/global-mobile-gaming-market-to-reach-139-5-billion-by-2026--301498967.html>
- Hartery, D. (Ed.). (n.d.). adjust.com. Retrieved October 1, 2022, from <https://www.adjust.com/blog/everything-you-need-to-know-about-social-mobile-games/>

- Hendelmann, V (2022). What Happened To Cyberpunk 2077? Why Did It Fail? Productmint. Retrieved October 14, 2022, from <https://productmint.com/what-happened-to-cyberpunk-2077/>
- Jaisrani, A. (2022). Diablo Immortal Is The Most Successful Failure In Series History. Tech4Gamers. Retrieved September 2, 2022, from <https://tech4gamers.com/diablo-immortal-best-worst-title-history/>
- Owen, P. (2016, March 9). What is a video game? A short explainer. TheWrap. Retrieved March 6, 2022, from <https://www.thewrap.com/what-is-a-video-game-a-short-explainer/>
- MarketWatch. (2022). Mobile gaming market 2022 research report with covid-19 update – key players analysis, growth factors and forecast to 2030. MarketWatch. Retrieved April 8, 2022, from <https://www.marketwatch.com/press-release/mobile-gaming-market-2022-research-report-with-covid-19-update-key-players-analysis-growth-factors-and-forecast-to-2030-2022-03-22>
- Mordorintelligence. (n.d.). Gaming Market - Growth, Trends, COVID-19 Impact, and Forecasts (2022-2027). Mordorintelligence. Retrieved October 3, 2022, from <https://www.mordorintelligence.com/industry-reports/global-gaming-market>
- Owen, P. (2016). What Is A Video Game? A Short Explainer. TheWrap; TheWrap. Retrieved October 3, 2022, from <https://www.thewrap.com/what-is-a-video-game-a-short-explainer>
- Proreviewsapp. (n.d.). The History of Development and Boom of Mobile Game in the Gaming industry. Buy App Reviews From Real Users. Retrieved October 3, 2022, from <https://proreviewsapp.com/the-history-of-development-and-boom-of-mobile-game>
- Says: P. (2021). China: The video game industry capital of the world. Marketing China. Retrieved April 17, 2022, from https://marketingtochina.com/china-the-video-game-industry-capital-of-the-world/#Short_History_of_the_Gaming_Industry_in_China
- Sla-digital. (2021). The rise of casual and hyper-casual mobile gaming. SLA Digital. <https://sla-digital.com/blog/the-rise-of-casual-and-hyper-casual-mobile-gaming/>
- Slobodian, G. (2021). The downfall of "fallout 76". Medium. Retrieved March 30, 2022, from <https://slobodiang.medium.com/the-downfall-of-fallout-76-1faedd807d08>
- SocialPeta. (2021). Mobile gaming industry statistics and trends for 2021. Business of Apps. Retrieved October 14, 2022, from <https://www.businessofapps.com/insights/mobile-gaming-industry-statistics-and-trends-for-2021/>

- Tara. (2022). What made the Finnish gaming market explode in the past few years. Helsinki Times. Retrieved August 6, 2022, from <https://www.helsinkitimes.fi/business/21594-what-made-the-finnish-gaming-market-explode-in-the-past-few-years.html>
- Transparency market research. (n.d.). Gaming Industry Market. Transparency Market Research. Retrieved October 14, 2022, from <https://www.transparencymarketresearch.com/gaming-industry-market.html>
- Webb, K. (2019). Nintendo, Sony, and other gaming giants made colossal mistakes this decade. these are gaming's biggest failures. Business Insider. Retrieved March 26, 2022, from <https://www.businessinsider.com/top-video-game-failures-decade-2010-3d-vr-wiiu-2019-12>
- Wasif, M. (2021). The 15 Highest-Grossing Mobile Games Of All Time, Ranked. Screenrant. Retrieved October 1, 2022, from <https://screenrant.com/highest-grossing-mobile-games-ranked/>
- Weustink, J. (2021). Gaming in Southeast Asia: The playing, spending & viewing behavior of a fast-growing games market. Newzoo. Retrieved August 10, 2022, from <https://newzoo.com/insights/articles/southeast-asia-games-market-esports-game-streaming-spending-playing-engagement>
- Williams, L. (2022). A Pandemic Is a Dream Come True for Gamers. Bloomberg. <https://www.bloomberg.com/opinion/articles/2022-01-16/pandemic-s-boost-for-video-game-industry-is-a-dream-come-true-kyh9nekz>

Appendix 1: Webpoll Questions

What gender are you?

What age are you?

Do you play mobile games?

How long do you play mobile games in a day?

What made you play mobile games?

Do you spend money in-game/games?

How much money?

What game genre do you like the best?

Why don't you like mobile games?

Are you addicted to mobile games?

Is a good mobile phone needed to play games?

Why do you play mobile games?