A Work Project, presented as part of the requirements for the Award of a Master’s Degree in International Management from the: NOVA – School of Business and Economics, and SGH - Warsaw School of Economics.

Marketing in Video Game Industry:

How do modern online video games fulfill customers’ needs?

Based on examples of Fortnite: Battle Royal and League of Legends

MICHAL ALEKSY SOSNOWSKI – STUDENT Nº38272

A Project carried out on the Master’s in International Management Double Degree Program, under the supervision of:

Professor Natalie Truong

20th of SEPTEMBER 2019
Abstract

The work focuses on finding which factors motivate players to play online video games and what are the consequences of playing with direct focus on Fortnite and League of Legends. This paper relays on scientific literature, two primary studies: netnography research and survey, together with available secondary research data. The last part of the work presents industry and selected gaming companies’ recommendations. The most important industry game factors are enjoyment, competition, friendship, and emotion catalyst. The main findings for Fortnite include extension of promotional activities to older players; and for League of Legends, extending game accessibility to a new platform.

Keywords: Online video game, Customer behavior, Motivation, Marketing
Table of contents

1. INTRODUCTION ............................................................................................................. 4

2. LITERATURE REVIEW ................................................................................................. 5

2.1. WHAT MOTIVATE PLAYERS TO PLAY? ............................................................... 5

2.2. POSITIVE AND NEGATIVE EFFECTS OF PLAYING VIDEO GAMES ............. 6

3. METHODOLOGY .......................................................................................................... 8

4. FINDINGS ..................................................................................................................... 9

5. A NETNOGRAPHY RESEARCH STUDY OF TWO POPULAR ONLINE VIDEO GAMES. ......................................................................................................................... 10

5.1. FORTNITE: BATTLE ROYAL .................................................................................. 10

5.2. LEAGUE OF LEGENDS .......................................................................................... 14

6. CUSTOMER BEHAVIOR SURVEY ANALYSIS ....................................................... 17

7. IMPLICATION FOR GAMING COMPANIES ............................................................. 23

8. LIMITATION AND CONCLUDING REMARKS ....................................................... 25

9. REFERENCES .............................................................................................................. 25

10. APPENDIXES ............................................................................................................. 29
1. Introduction

Video game industry is an economic sector associated with video games monetizing, development and marketing. At the beginning (early 70s and 80s), the industry was considered niche and perceived mostly as oddity rather than a real industry. However, over the last decades, the video games industry has grown to become one of the most dominant and profitable ones in the entertainment industry. In 2017, video game sector was valued at approximately USD 78.6bn worldwide and it is estimated to grow by 14.6% (up to USD 90.1bn) in 2020 (Clairfield International 2018). What is more, according to PricewaterhouseCoopers’ forecast (2016-2021), e-sport (online) games segment growth is expected to outperform other segments in the global entertainment and media industry with over 21% of growth (PwC 2017).

The aim of this work is to examine factors which motivate players to play multiplayer computer games and the possible consequences of playing video games. In order to better understand indicated problems and their phenomenon, the main task of the work is also the characterization of motivating aspects and outcomes in relation to the two most popular online games, namely Fortnite: Battle Royal and League of Legends after several years of presence on the market.

The adopted objective of the work defined its scope and structure, which consists of three main parts, and limitations with concluding remarks. The first part presents motivation of customers to play, and what are the positive and negative effects of playing video games based on literature and research papers. The second part displays two primary studies, including a netnography research study of two selected online video games, and customer behavior survey results performed by the author of the work along with available secondary data. The last part shows implications and recommendations for selected game companies.
2. Literature Review

2.1. What motivate players to play?

As already was mentioned in the introduction part, video game industry is one of the biggest and the fastest growing segment in the whole entertainment industry which raises the question about our, as a customer, motivation to buy and play video games. Of course, the answer to such a general question is not simple but rather complex and depends on many individual variables. That is why, for simplification purposes, this part of the work focuses on the collective video game motivational factors, without distinction between different types of games.

According to Juho Hamari and Lauri Keronen, video games are posited as multi-purpose informational systems which relay on hedonic factors. The main results of their analysis show strong correlations between the variables such as enjoyment, usefulness, and attitude towards a game. What is more, even though some games are mostly played for entertainment reasons, there are games which use may be motivated by their usefulness/educational aspects. Further speaking, the authors suggest that the core motivation factor behind playing games is not constant and can change with individual temporary playing purpose for each game (Hamari and Keronen 2017). Such a results show that the common perception of the video games as only entertainment tool might not be accurate.

Results of previous paper are also confirmed in the group focused work of Cherly K. Olson who grouped and refined the reasons for playing video games by children and adolescence. C. K. Olson grouped motivation purposes into three groups: social, emotional, and intellectual and expressive motivations (Olson 2010). Social motivations to play include friendship, learning, and competition where students highlighted games as opportunity to hanging out with peers, platform for making new friends, joy of competition, learning from each other, and opportunities to lead (especially in multiplayer games)(Olson 2010). Surprisingly, emotions
play a significant role in children motivation for playing games. Emotional motivation focused largely on relaxation through gaming, coping with anger, and forgetting about problems or loneliness (Olson 2010). The last group of intellectual and expressive motivations seem to be the most diverse from all three groups. Video games are more demanding compare to other media (TV, books or radio) which provide opportunity to challenge and master games. What is more, games are perceived as a tool to express creativity and experiment with different identities, behaviors, and actions without consequences in real-life. Thus, gaming is also motivated by curiosity, discovery and learning of unreality (Olson 2010).

Furthermore, similar or the same motivational factors given in this chapter of the work, were also presented in other research papers such as pleasure/enjoyment, autonomy or usefulness (Ryan, Rigby, and Przybylski 2006), and competition factor along with cooperation with other players (Vorderer, Hartmann, and Klimmt 2003).

To sum up, video games are broadly appealing and serving number of diverse needs compared to other entertainment media which can explain why more and more people play or is interested in playing video games. Researches show that motivation behind gaming differs between customers. What is more, games can influence player’s behavior. Accordingly, games can bring different positive and negative outcomes depending on customer’s motivations, expectations, and other variables. In order to present consequences of playing video games, next subpart of this chapter describes what are the advantages and drawbacks of gaming.

2.2. Positive and negative effects of playing video games

Measuring positive and negative effects of video games is a hard job to do. Possible outcomes of the game depend on individual characteristics of a player and on game’s content, type/genre, cooperation aspect (multiplayer games) or its lack, and many more characteristics (Bavelier et al. 2015). So far, researchers focused mostly on the negative effects of playing games (Greitemeyer and Osswald 2010). Such attitude was driven by the negative assumptions about
players as antisocial people. What is more, the most well-known titles were strongly related to violent content which combined with young gaming audience, from 80s and 90s, brought attention towards negative effects. However, nowadays there are more researches and papers aimed at the positive sites and potential benefits from gaming.

Perhaps the least obvious positive site of use of video games is in healthcare and treatment. According to Pamela M. Kato from University Medical Center Utrecht, tailored video games can be an example of innovative way of trainings for doctors (especially in surgical area) and during patient recovery process (Kato 2010). In her research paper P. M. Kato shows that games can positively affect both, treatment outcomes and health behaviors (Kato 2010). However, commercial use of video games in healthcare has still not reached it potential, therefore, it creates a new niche market for game developers.

From general perspective, group work “The Benefits of Playing Video Games” (Granic, Lobel, and Engels 2014) indicates positive outcomes of gaming in four areas: cognitive abilities, motivational, emotional, and social benefits. Some of the skills which were gained through gaming are observed to be adapted in the real-life context, e.g. cognitive skills such as faster and more accurate attention allocation, higher spatial resolution in visual processing, and enhanced mental rotation abilities (Granic, Lobel, and Engels 2014). What is more, additionally to spatial skills games can develop problem-solving skills (Prensky 2012) and enhanced creativity (Granic, Lobel, and Engels 2014). Furthermore, prosocial games (e.g. Rescue Team 2 web game and Super Mario Sunshine) have positive outcomes on social behaviors such as decreasing aggressive behavior, cognition, and affect (Greitemeyer and Mügge 2014). Players who played prosocial games are more willing to help others (Greitemeyer and Osswald 2010).

On the other hand, the same characteristics that enable games to develop better perceptual, cognitive skills, and social behaviors can also lead to the negative effects on customers brains (Bavelier et al. 2015). Studies shows that violent video games cause an increase in aggressive
behaviors, aggression-related affect and thoughts (Greitemeyer and Osswald 2010). Early studies indicated also altered social behaviors, loneliness, decreased attention, and in serious cases depressed moods. Action games which contain violent content, and are considered to be especially addictive for players, reduce both empathy and stress linked with observing or participating in anti-social activities in real world (Bavelier et al. 2015). Addiction and aggression related behaviors, thoughts or illnesses (such as ADHD) are the most often highlighted drawbacks of video games.

Following chapters of the work are aimed to compare studies pictured above with contextual examples of players motivation and observed outcomes of gaming. Thus, presented studies are focused on two most popular online video games of 2019, Fortnite and League of Legends, in order to check whether and how these games take into account customers’ needs. Even though both games become a huge success, there are only few marketing analyses (mostly articles for one title: Fortnite) published online and no official research paper was done or is now broadly available for these games. Therefore, taking into account the presented development perspectives for the online gaming market, it is reasonable to perform consumer needs research based on games that have achieved great commercial success.

3. Methodology

In order to determine which motivational factors, play the strongest role for the players, customer behavior analysis was performed. Understanding customer motives to play certain video game combined with positive and negative consequences of gaming leads to more effective marketing strategies in the strongly saturated industry.

The study was divided into two parts: the comprehensive research of the two most popular (in terms of number of players) online video games, in 2019, Fortnite: Battle Royal and League of Legends. Research was built on netnography approach – qualitative research methodology that uses digital communication channels (such as forums, videos, reviews etc.) to identify and
understand customer needs and decisions by adapting ethnographic research techniques. Ethnography is a descriptive study about people, their customs, and way of life; netnography, in a nutshell, is ethnography on the Internet (Kozinets 2002). Communities of both games were observed by the author on the official games’ forums or fan pages, on the game streaming website Twitch, under related YouTube videos’ commentary section, and on the most popular reviewing platform Metacritic.com, where players leave their comments/opinions about games. The second part of the study was a quantitative online data survey which main objective was to verify the presented in previous chapter results of scientific research in the context of motivation to play, taking into account the importance of motivating factors. The second goal of the survey was to assess the influence of possible positive and negative effects of playing games by the respondents. The final intention was to verify results from the part of netnography research, jointly with answering the question, whether customers are interested in or in favor of the selected marketing campaigns performed by companies responsible for Fortnite: Battle Royal (Epic Games) and League of Legends (Riot Games).

The primary data was complemented by secondary sources in order to present broader and more precise customer perspective, jointly with available information from game developers’ official sites. Finally, to have better understanding of the presented customer behavior analysis, results of both studies were combined and cross-checked in the recommendation section of the work.

4. Findings

Next chapters of the work are aimed to presented results of two customer behavior studies. Firstly, the paper shows findings of netnography research study of Fortnite: Battle Royal and League of Legends games. Secondly, the work demonstrates results of quantitative data research from online survey executed by the author of the paper. Then, the analysis follows with the chapter presenting implication for the game developers, focusing mainly on the two companies Riot Games and Epic Games.
5. A netnography research study of two popular online video games.

5.1. Fortnite: Battle Royal

Background

Fortnite: Battle Royal is a free multiplayer (online) game which became a global phenomenon. Millions of players every day are dueling through the network on all leading platforms: consoles, PCs, and smartphones – game reached around 250 millions of players in March 2019 (Ben Gilbert 2019). To be more precise, under the Fortnite umbrella there are two titles, Fortnite: Save the World and Fortnite: Battle Royale, only the second game was examined in this subchapter of the work.

Idea and mechanics of the game are simple. Up to one hundred players go to a huge flying bus that moves them over the surface of a large island which is the main place of action. At the selected moment players jump out of the vehicle and go down in order to find the best zone to start the game. Their main goal is to survive and kill other players until only one stands on the map and therefore wins the game. The strategy of fun depends only on player who can either run, hide, set a trap etc. The game differentiates from other similar titles with the possibility of destroying buildings, trees, and almost all objects in order to obtain raw materials. They are useful when building structures like walls or stairs in real time, leaving players large autonomy of choice and space for their imagination.

Motivations of playing Fortnite: Battle Royal

Even though the game has reached huge popularity and became one of the most-played game in the world, it has also faced generally unfavorable reviews from users. According to Metacritic (website that aggregates games, movies, TV shows, and music albums reviews from users and critics), the game has reached average 3.8 out of 10 user score from more than 600 players’ reviews. (Metacritic 2019d). The game has very young community which is mostly
active on streaming sites, fan pages, and official game forum. Newzoo’s survey shows that 53% of Fortnite users were aged 10-25 (Meehan 2019). Fortnite has faced similar online community fight as Apple with its devices’ opponents. Due to Fortnite young players, it creates visible counter community of older players who are more active in reviews, and as one of the reviewers stated on Metacritic: “servers are filled with annoying kids” (Appendix 1).

Contrary to the user reviews, professional gaming portals have rated Fortnite with much more favorable reviews and game has reached on average 78 out of 100 critic score from 16 portals (Metacritic 2019a). The same positive comments about the game can be found on Fortnite Facebook fan pages and under YouTube videos related to the gameplay were core players are present, such as: “Fortnite is the best game for me” (Appendix 2) or “Not gonna lie. This [game] looks awesome” (Appendix 3). Fortnite is considered to be an enjoyable game for the players. Along with other motivational factors, customers are highlighting the fun that game brings to them: “Fun, much custom things, challenging, brilliant and very intense” (Appendix 4) and “its a fun game with friends alone you can explore is amazing!” (Appendix 4).

What about other aspects of the game such as competition and experiencing unreality? Those motivation factors are often mentioned by gamers in online comments. For some users, unreality (in terms of the graphics design) is not always an advantage, as one of the users stated, “I don’t like cartoony games” (Appendix 5). On the other hand, there are customers who are in favor of the more unrealistic experience “(...) the shooting is more arena unrealistic style, so I do think that this is a good alternative (...)” (Appendix 6). Unreal/cartooney graphics is very often mentioned as a “kid friendly” factor by the players: “The non-realistic graphics of the weapons and cartoon-like feel to Fortnite makes this game very user-friendly to all ages. Just childish enough to include all the young ones (...)” (Appendix 7).

Fortnite and its competitive game mechanics is clearly an important motivation element for the majority of players who are highlighting competitive aspects in their reviews “I would
recommend Fortnite to anyone who likes to play competitively or just to have fun with a crew.” (Appendix 11), “(...) enough competitiveness to entertain large scales of audiences across the globe.” (Appendix 7), and “Fortnite is best to experience if you have the skill to compete with others (…)” (Appendix 8). Competition and mastering the skills increase the enjoyment from the game for large number of players.

Consequences of playing Fortnite: Battle Royal

Interestingly, the game is positively perceived by users throughout its learning aspects. Suvrveymonkey.com performed an survey in which more than 1000 adolescents (13-17 years old) and over 2000 parents (who have kids between the ages of 8-17 years old) were asked about benefits from playing Fortnite (Gitlin 2019). According to the survey, teens are more optimistic about gained benefits compare to their parents (Figure 1).

Figure 1: Ways that kids and parents think Fortnite helps them or their children.


Improvement of teamwork (50%) and communication skills (40%) together with making new online friends (44%) were the most selected ones by teenage responders from offered benefits. On the other hand, parents are not so confident about their children gained benefits. Only 26% claims that via playing Fortnite their children have improved teamwork skill and even less
(about 14%) think that game can improve communication skills. Such an observations are understandable as users of the game (in this case adolescents) have stronger emotional bond with a product and they cannot objectively evaluate their skills improvement.

Findings from Surveymonkey.com are also highlighting the importance of friendship created by playing game. As already mentioned above, 44% of teenagers claims that playing Fortnite helped them with making online friends. Additionally, 39% answered that game improved bond with sibling/s and 22% think that they were able to make new friends in person. Indicated friendship benefits can be acknowledge based on players comments which suggest that having friend to play with increases the fun from game: “It is fun to play alone but even greater when playing with friends. To be able to win you have to demonstrate cohesiveness and teamwork (...)” (Appendix 9), “Fortnite is an arcade shooter that is fun to play only with friends.” (Appendix 10) or “Even if you dont have any friends that play (...) you can meet new people that play fortnite and make some new friends as well.” (Appendix 11).

With all of joy, autonomy, competitiveness, unreality, and subjective learning aspects which Fortnite brings to its customers, there are also drawbacks/negative effects of the game. Game addiction is one of the most visible drawbacks in the online discussion. In March 2018, The Guardian published an article titled “Fortnite: a parents' guide to the most popular video game in schools” in which editor tries to explain the concept of the game and the most important aspects for parents (Stuart 2019). Under the article there are more than 250 comments, mostly from parents, and some of them are focusing on addiction factor. As one of the parents stated, “It is proving much more addictive than any other game my son has on Xbox.” (Appendix 12). Another comment under the article is also based on obsession: “13 yr old son is completely obsessed with it and spends every minute he can either playing it or watching YouTube videos about it.” (Appendix 13). What is more, parents’ doubts about bad influence that game has on their children, is often proven by players or streamers who acts aggressively (using swearing
words etc.) during gameplay or streaming. Intense and daily playing brings stress to the players, as one of them declared under one of the Fortnite YouTube videos, “I did 5 weeks of no Fortnite I feel less stress I done with Fortnite.” (Appendix 14).

To sum up, Fortnite fulfills players needs in terms of motivational factors such as enjoyment, competitiveness, friendship, and others. In the same time, the game has strong but not always good influence on the customers (especially adolescents and kids) which manifests itself by addiction, stress or verbal aggression.

5.2. League of Legends

Background

League of Legends is the most popular free to play Multiplayer Online Battle Arena (MOBA) game developed by the Riot Games studio, issued in October 2009 on PCs. In 2016 game has reached 100 million monthly active users (Khawli 2016), but even today it still is one of the most played and watched video game of all times. In 2018, League of Legends was the second most watched game on the streaming platform Twitch, just right after described in subchapter above Fortnite: Battle Royal (Khawli 2016).

The game takes place in a fantasy world, called Valoran. It is a team action/RPG (role playing game) in which player has to fight with other players within the confines of a closed arena. The main task is to destroy the enemy base. There are two modes: 3 vs 3 and 5 vs 5. Depending on which game model was chosen, the size of an available map changes. Before the start of each match, player has to choose a hero that he or she will control. During gameplay players will encounter difficulties in the form of defensive towers, other players, and minions. In League of Legends player moves with so-called lane (Appendix 15). These are the main paths through which heroes will reach an enemy camp. Also, the above-mentioned minions travel with them, they are hostile subordinates on whom players have no control.
Motivations of playing League of Legends

Similarly to Fortnite, League of Legends has reached good reviews from critics, on average 78 out of 100 critic score from 37 portals (Metacritic 2019b), and mixed/average reviews from players. With more than 3200 players’ reviews, game has reached on average 5.5 out of 10 points (Metacritic 2019c). According to the game community, the reason for such a difference between critics and players’ reviews can be found in so called “toxic game community” which remains one of the biggest drawbacks of the game. More detail information about negative outcomes are described later in this subchapter.

Although, game has drawbacks, it remains an enjoyable video game for the customers: “I think now a days is a really nice moba to enjoy (...) i think the bad community is kind of myth (...)” (Appendix 16). With more than 1400 positive reviews on Metacritic from customers (Metacritic 2019c), it would be hard to claim that game does not bring fun for those who play more casually: “Very fun and addictive game, but the community is SO toxic. It’s a very good game” (Appendix 17).

Furthermore, League of Legends is strongly competitive game, which can be used for learning sportsmanship, but it has also less positive site which are presented in the section related to outcomes of the game. Competition stands as an important factor for the customers who are highlighting it in their comments: “it is my favorite competitive game (...)” (Appendix 18) or “Pretty fun competitive game with decently high skill celling and interesting champions.” (Appendix 19). The game offers high competition with wide autonomy of choice of the champions (over 100 characters), strategies and action possibilities during the match. Each match is different and can be approach in the way that each player recognizes as the most suitable. Autonomy and competitiveness factor jointly with constant updates create strong incentives for the players to keep them loyal to the game for many years.
Consequences of playing League of Legends

As mentioned above at the begging of this subchapter of the work, League of Legends has strong influence on the players community which can be both positive and negative. Firstly, highlighted previously toxicity of the game’s community which is manifested in verbal aggression or frightening by reporting/banning others during gameplay which is mostly targeted to players with lower skills or involvement to the game. Toxicity is present so often that just after opening the official game forum and typing “toxic”, player can find hundreds of topics related to the problem. What is more, as one of the customers claimed in the official forum, even though he had not been toxic, due to community he became one: “(...) i’ve become toxic because it is a norm in this community.. the environment you’re in slowly but surely will change you” (Appendix 20). One problem brings another, toxic community is related to addiction and frustration, “I was not playing for fun. I was playing out of addiction. This game is toxic and extremely frustrating (...)”, one of the players stated (Appendix 21). League of Legends seems to be as addictive as Fortnite, users claim to continue playing while being disappointed with community: “This multiplayer online battle arena, in general, is quite fun and addictive (...) although the community can sometimes be stereotypically toxic and bothersome to deal with (...)” (Appendix 22).

Ivan Davies from Riot Games is responsible for handling toxic community by educating young players from Australia and New Zealand about good online behavior. The goal of the company is to use the game as a platform for younger audience to understand and promote sportsmanship by special program called League of Legends High School Clubs (Two Hat Security 2019). In this way company, together with selected teachers from schools, wants to use positive site of the game focusing on team-oriented mindset, respect, discipline, responsibility, resilience and positive attitude (Riot Games 2019). Learning aspect seems to be very crucial for the company as the toxic community remains one of the visible problems of the community.
Based in fantasy world Valoran, League of Legends brings unreal world of characters/heroes with different powers to the players. Divers selection of the heroes helps with experiencing escapism to the game’s world and community. Players are fond of new characters or new skins for existing heroes and very often comment on new releases: “bought it already (...) love this skin” (Appendix 23) or “the best skin created by riot games (...)” (Appendix 24).

League of Legends remains popular since it was released in 2009 because it meets both players’ needs: competitive and hedonic (enjoyment, escapism etc.). The game provides balance between competition and new challenges while experiencing unreality with escapism.

6. Customer behavior survey analysis

The study involved 103 people aged 18-24 (68.9% of respondents), 25-34 (29.1%) and 35 and more years, the remaining part of the surveyed (Appendix 25). The survey results remain with gender balance with almost half-half gender distribution between respondents, 47.6% was women and 51.5% was men (Appendix 26).

41.7% of respondents are not identified as players, and the dutiful reasons they indicated as reasons for not playing games are: lack of time (60.5%) or its waste while playing (46.5%) and the fact that computer games never appealed to them as a form spending free time (48.8%) (Appendix 27). Other reasons such as never tired, computer games are boring, or I do not know how to play were given only in a few cases.

Majority of the respondents (58.3%) claimed that they play video games. Half of the surveyed players (50%) play, on average, less than an hour per day, 30% play from 1-2 hours per day, and the rest 20% play more than 2 hours per day (Appendix 28). However, 70% of the surveyed players are men and 74% of the non-players are women.
Motivational factors

The majority of respondents (87.4%) indicated fun and entertainment factor as the one which encourage players the most to play (Appendix 29). Such a choice illustrates that enjoyment is the core motivational value for choosing any type of video game. Next on the list was competition 56.3%, games as a way to escape real life 47.6%, and with 43.7% both: emotion catalyst factor and friendship factor. Experiencing unreality and escapism was indicated by 40.8% of respondents. Creativity and autonomy of choice reached consequently 24.3% and 21.4%. Usefulness/learning aspect get 14.6% of votes.

Pointing to the individual motivation to play games, the respondents were asked to rate nine sentences on a scale of 1 to 10 (where 1 was, I disagree completely; 5 was neutral for me; 10 was I completely agree) (Figure 2).

**Figure 2: Survey answers assessment scale**

![Survey answers assessment scale](image)

*Source: own elaboration*

In the case of such structured questions, a significant part of the respondents agreed with the claim that they play computer games because they bring them joy and fun (the average answer was 7). However, the difference between players and non-players was two points on the scale, as players agreed with this opinion more often (on average rated it at 9 points) and non-players rated the sentence at only 6 points (Appendix 30). Both those who play and those who do not play have not identified or disagreed with the statement that they are playing games because they can learn new skills thanks to this, evaluating on average them for 4 points (players) and 3 points (non-players).
Interestingly, the average score of the next seven questions was distributed, in which both players and non-players tend to disagree with them or remain neutral in relation to them, assessing (on average) the following sentences: [1] I play video games because they help me to manage my emotions such as anger and loneliness (both players and non-players: 4), [2] I play video games because through them I can meet new people or have a common topic to talk with my friends (players: 5 and non-players: 4), [3] I play video games because I like to compete with others (players: 6 and non-players: 4), [4] I play video games because they help me with expressing my creativity (players: 5 and non-players: 3), [5] I play video games because they help me with experimenting with different identities, behaviors, and actions without consequences in real-life (players: 5 and non-players: 5), [6] I play video games because I feel autonomous in games (players: 6 and non-players: 4), and [7] I play video games as a way to escape from my real life (players: 5 and non-players: 5) (Appendix 30). Worth to notice are the differences in assessing the questions divided by gender. In general, male non-players tend to agree more with presented questions compared to female non-players, having more similar scores to players from both genders. What is more, all men are more in favor of competition in games compared to players and non-players women (on average men assess it by 7 vs 4 by women). On the other hand, female players weakly agreed with statements related to creativity and escapism in games when male players rather disagreed with them.

Consequences of playing video games

Side effects of video games are seen by majority of respondents (81.6%), only 18.4% of responders claimed that video game has no effect on the way people act (Appendix 31). As a result, more than half of respondents (53.6%) think that playing video games brings equally positive and negative effects to players, 22.6% believe in more positive effects and 23.8% claimed that games cause more negative outcomes (Appendix 32). Furthermore, when asked about indicated consequences, in general, both groups players and non-players (without
noticeable differences between genders) evaluated them on a scale of 1 to 10 (Figure 2) in significant part agreeing with the indicated outcomes. The strongest agreement from respondents applies to game addiction with average score 9 from all groups (Appendix 33). All respondents agreed that games can liberate aggressive behaviors, crate internal toxic communities, and cause negative emotions (such as anger) with average score 7 out of 10. Nevertheless, there are small differences between degree of agreement related to positive effects of gaming. Players agree more with positive outcomes compare to non-players in the survey. For the statements: [1] video games can cause positive emotions e.g. happiness (players average score of 9 vs 7 non-players), [2] video games can improve pro-social behaviors e.g. helping others (players average score of 7 vs 5 non-players), and [3] video games can help with improving skills such as problem-solving related skills, communication, cooperation, and creativity (players average score of 8 vs 6 non-players).

**Fortnite and League of Legends findings**

When it comes to games presented in previous chapter, 26.2% of respondents know and played Fortnite: Battles Royal and 37.9% of respondents know and played League of Legends (Appendix 34 and 35). For those who know and played the games, there was 13 question related to presented in this work motivational factors and perceived outcomes of the game. Moreover, all respondents were asked about their attitude towards selected parts of marketing campaigns of both titles.

Surprisingly, respondents who know and played Fortnite have opposite opinions based on gender distribution. On average, female players agreed or weakly agreed in contrast to male players who disagreed or were neutral (Figure 2) with half of presented statements about Fortnite: [1] it brings me fun and positive emotions (female: 7 vs male: 5), [2] help me with improving my skills (female: 7 vs male: 3), [3] help me with managing my emotions (female: 6 vs male: 3), [4] help me with finding new friends/Fortnite is a good platform to talk and play
with my friends (female: 8 vs male: 3), [5] help me with experimenting with different identities (e.g. different skins), behaviors, and actions (female: 7 vs male: 3), [6] gives me autonomy (female: 6 vs male: 4) (Appendix 36). However, all players agreed that Fortnite is a competitive game (on average: 7) and were hesitant about addiction (on average: 6), negative emotions/behaviors (on average: 6), and toxicity of the community (on average: 6). What is more, both groups claimed that they are not decided about influence game has on them, either positive (on average: 5) or negative (on average: 5).

On the other hand, for League of Legends, there is no difference between men and female respondents. All players of the game agreed with described in the netnography toxic community of the game with average answer score (Figure 2) of 7, they also claimed that LoL is very addictive (average score: 8), and competitive (average score: 7) (Appendix 38). Respondents moderately agreed with statements about fun/positive emotions from game (average score: 6), and friendship factor of the game (average score: 6). For the rest of the motivational factors such as improving skills, creativity, and autonomy responders remined neutral with average score of 5 for all listed factors, despite managing emotions e.g. anger with score 4. Experimenting with different identities, behaviors and actions remains the only exception because female responders agreed with this game aspect (average score: 7) when for male players it is not motivational element of the game (average score: 4). According to collected answers, similarly to Fortnite responders, also LoL has no influence (positive or negative) for the players (average scores for all players for both effects were 5).

The last survey questions covered selected advertising campaigns for both games. Respondents were asked to assess the extent to which they liked or not the ads (from 1 to 10 scale, where 1 was: not like it, 10 was: love it; 5 was: indifferent/neutral to respondent). In the case of Fortnite, there were two graphics with new costumes/characters (the first from the Avengers universe and the second from the NFL league), and one video advertising of the latest season of the
game. For League of Legends, two promotional videos were presented, the first was the anime theme video ad of the latest 2019 game season, and the second was the main game trailer available on YouTube. The advertising campaigns of both games presented in the survey met with the same rating from the respondents (Appendix 37 and 39). All campaigns, both Fortnite and LoL remain indifferent to the majority of the respondents as they claimed to be neutral (neither like them or not) towards presented ads. Small differences can be seen only in the division into people who know and played the game, and people who have not had contact with the product. Through the first of these groups, the presented campaigns are perceived slightly more positively compared to the second group which remains almost unanimously in any way through the presented materials (Appendix 37 and 39).

More detailed information can be derived from respondents’ short open answers regarding what they like or dislike in selected campaigns. For the Fortnite, if not taking into account the responses that marked the lack of knowledge about the game and thus the lack of reaction to the presented ads or statements directly hitting the campaign due to lack of sympathy or hate for the product (described in the netnography study section), the statements made by the surveyed show that Fortnite marketing campaigns are interesting due to the subject matter (e.g. using current trends such as Avengers or NFL matchups), funny, colorful and with musical approach to the content being conveyed, and an attempt to reach different tastes of recipients. The biggest complaint is the lack of the presentation of game mechanics and its purpose, by which people who are not familiar with the title do not know what the game is about. In the case of LoL, also the creativeness and approach to the presented content was positively evaluated (e.g. using the anime theme in one of the ads). Respondents pointed out that, unlike Fortnite, the LoL promotion videos depict fragments of the game, which helps in understanding the game. What is more, both videos emphasize the aspect of competition and team cooperation between players.
The next chapter of the work presents implication of the presented research outcomes for the game developers, focusing on Fortnite and League of Legends developers.

7. Implication for gaming companies

Implication and recommendations regarding customer behavior and motivation research presented in this work can be divided into two parts. Firstly, general implication for online video game industry and secondly, more specific recommendation for the analyzed titles: Fortnite and League of Legends.

The theory presented in this paper as well as conducted and described researches indicate the following conclusions regarding the consumer's approach to the product, which are online video games. First of all, the most important aspects for consumers when choosing a game are the fun/joy brought by a given title. Secondly, the ability to compete with other players (especially visible for men customers) and meeting new people or playing with friends. What's more, it is well perceived when the game is an emotions catalyst (for negative or positive emotions) and helps with cutting oneself off from everyday problems by experiencing the unreal world presented in a given game. In addition, using and implementing popular internet trends (e.g. mems or viral information), strong cooperation with streaming platforms (e.g. Twitch or YouTube) and streamers, increase a potential group of new loyal customers. Constant updates of the game remain very important due to maintaining player curiosity and eliminating the element of boredom with the game.

Furthermore, it follows from the considerations that Epic Games has launched a very good product: Fortnite. Considered by many to be childish, and at the same time attracting so many players by constantly improving the product and publishing new seasons of the game, characters, and collaboration with well-known brands or referring to popular pop culture and digital trends. As a result, providing its clients with fun, competition and an interesting graphic design that has been appreciated by fans. Undoubtedly, the second aspect of the marketing mix,
the price, has been set at the best possible level which is zero for the digital version of the game. Thus, eliminating the barrier to enter and try the game. The third aspect of 4P, the place, was used to the same extent effectively as the price, through the availability of Fortnite on most major gaming platforms in the world. However, the last piece of 4P, the promotion, has room for improvement. Epic Games, despite the huge popularity of its title, still has the untapped potential of more experienced and older players. Through appropriate promotional activities, highlighting the best advantages of the product (joy of the game, competition and friendship) can attract a new consumer group to its product. However, in this case, it is necessary to create a campaign which will present in more detail what the game is about and will touch trends that are interesting for a new audience group and emphasized that the game is not only for young people but also for more experienced players.

As in the case of Fortnite, Riot Games has applied a very well-balanced marketing mix for its game League of Legends. The game gives a lot of satisfaction from mastering the game, competition, and cooperation with friends and getting to know new ones. While maintaining the zero price, the only difference compares to Fortnite, is that LoL is available only on one platform: personal computers (PCs). In this case, it seems sensible to consider the possibility of introducing a game on consoles in order to increase the availability of the product. Another aspect that requires attention in product and its promotion is the game community and its toxic impact on players. Toxic community remains visible almost in all opinions about the game and is certainly a problem for the creators of League of Legends. The introduction of a wider campaign for the education of players and tools to combat players displaying bad behavior could bring visible image benefits for the company. In addition, maintaining an up-to-date approach to the promotion, which is considered by players as relatively well-suited to the target group.
8. Limitation and concluding remarks

Throughout this paper, it has been shown which motivational factors and games side effects exist. Secondly, it was shown which factors play crucial role for the customers within online video game industry and more specifically for Riot Games and Epic Games products: League of Legends and Fortnite: Battle Royal, and how these companies meet player’s needs. Presented analysis comprises limitations. The first one coming through the fact that only two online games were examined, covering MOBA and Battle Royal genre specifics. Another limitation comes from the survey analysis, as the age distribution and the number of the respondents was limited. What is more, the number of examples of presented marketing campaigns of both games were restricted due to rational length of the survey which implies that not all promotional aspects of the games were displayed to responders. In the author's opinion, further and more detailed research aimed at general market actions as well as separate deeper analyzes of consumer behavior for particular games should be carried out in order to supplement the conclusions and recommendations presented in the paper, which are of general nature.

9. References


10. Appendixes

Appendix 1 – Fortnite, Metacritic.com comment No. 1

source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews

Appendix 2 – Fortnite, Youtube.com (IGN) comment No. 1

source: https://www.youtube.com/watch?v=Q19apeXtGXE&t=968s

Appendix 3 – Fortnite, Youtube.com (IGN) comment No. 2

source: https://www.youtube.com/watch?v=Q19apeXtGXE&t=968s
Appendix 4– Fortnite, Metacritic.com comment No. 2 and 3

Elementaloz  
Amazing fantastic and for long! Fun, much custom things, challenging, brilliant and very intense. I hope in fip mode this will be best coop game of year!

TheOnlyHopee  
you need to buy this game its a fun game with friends alone you can explore is amazing!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews

Appendix 5– Fortnite, Techspot.com comment No. 1

QuantumPhysics  
I don’t like cartoony games. I prefer PUBG.

Source: https://www.techspot.com/review/1823-fortnite-battle-royale/

Appendix 6– Fortnite, Youtube.com (IGN) comment No. 3

Rollins 1 rok temu  
as a pubg player i do think that this game is a good alternative, not only because its free, but because it does have a lot of different things from pubg, as you said here, the resource system, and building aspect and the shooting is more arena unrealistic style, so i do think that this is a good alternative for those who dont like pubg or want something free

Source: https://www.youtube.com/watch?v=Q19apeXtGXE&t=968s
### Appendix 7– Fortnite, Metacritic.com comment No. 4

<table>
<thead>
<tr>
<th>Source</th>
<th>Date</th>
<th>Reviewer</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Sep 16, 2018</td>
<td>Kasegamereview</td>
<td>This odd combination of a third-person shooter battle royal with platforming elements and a Minecraft-like building meta can be a silly yet addicting source of abnormal video game fun. The non-realistic graphics of the weapons and cartoon-like feel to Fortnite makes this game very user-friendly to all ages. Just childish enough to include all the young ones, and enough of a competitiveness to entertain large scales of audiences across the globe. There is a very low barrier to entry as well, considering the BR mode of Fortnite is free on almost all available platforms, so this game has excelled at drawing in such a large community. Hands-on, this game feels very smooth and runs with mind-blowing fluidity. Games can start and end all in the same minute, or you can chase a victory royal all the way into the 25th minute. The best part about a game such as this is the amount of work the developers, Epic Games, is constantly putting into it to make the best possible experience for the players. Every single day there is something new added or amended in the game, whether it be a new skin or dance added to the shop, or a giant low-gravity cube that puzzles everyone as it inches its way across the map. Whatever it is you are looking for in a battle royal game, Fortnite has it. The building mechanics come second to none and the game-play manages to always keep you engaged whether you’re behind the controller, or behind a screen watching your favorite streamer. There is no doubt in my mind that Fortnite will be remembered forever in gaming history as one of the best games to ever enter the hands of us very lucky gamers. Go check out Fortnite for yourself and try to be the last one standing, nothing feels quite as satisfying as a well-deserved victory royal. Collapse ▼</td>
</tr>
</tbody>
</table>

1 of 1 users found this helpful

All this user's reviews

source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews

### Appendix 8– Fortnite, Metacritic.com comment No. 5

<table>
<thead>
<tr>
<th>Source</th>
<th>Date</th>
<th>Reviewer</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Jul 7, 2018</td>
<td>Lambisduck</td>
<td>Fortnite is quite popular because of it's skill based combat and it's cartoon art style that still impresses. Fortnite is best to experience if you have the skill to compete with other skilled players like yourself. Fortnite has a lot of skill, luck, and situation playing it's hand at your opportunity of winning, since it involves a lot of luck this dis values it's opportunity at being an e sport. Overall it seems really overrated, and compared to many other games seems just average. Collapse ▼</td>
</tr>
</tbody>
</table>

0 of 0 users found this helpful

All this user's reviews

source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews
Appendix 9– Fortnite, Metacritic.com comment No. 6

CorbinatorDJ

I absolutely love playing this game and have logged an insane amount of hours into it. It is fun to play alone but even greater when playing with friends. To be able to win you have to demonstrate cohesion, level and teamwork, which are very important skills to have. This game also has insane replay-ability with the all consuming desire for a “victory royale”! The only reason I did not give this a 10 is because as fun as it is it can be very frustrating. And not because you don’t always win (that’s a given), it’s because it can at times be very unbalanced or feel broken. When the game doesn’t work right and it results in your death that can be very infuriating. Nevertheless this game is an incredible play and deserves all the hype it’s been getting. Collapse

source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews

Appendix 10– Fortnite, Metacritic.com comment No. 7

NanoThunder:God

Fortnite is an arcade shooter that is fun to play only with friends. It gets really boring if you play alone or in a group of people that you don’t know. People don’t help you and most of the time they leave you to die. The guns are bad because of the bloom, shotguns do 9 damage to the head and the only working component is going to be nerfed (balancing). I hope that Fortnite gets better with time.

source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews

Appendix 11– Fortnite, Metacritic.com comment No. 8

RealistReviews

I have played this game since about season 3 and it is still my go to game whenever I log on. If I want to get a few dubs with the homies or run some solos, this game keeps me entertained the whole time I play. Even if you don’t have any friends that play, epic allows you to run squads or duos with fill on. So this way you can meet new people that play Fortnite and make some new friends as well. So if you need anyone to play just run a few fill matches and make some friends that way. The game doesn’t just stop with that, they also do weekly updates to make the game fresh and fair for everyone from the pros to the casuals and rookies. I would recommend Fortnite to anyone who likes to play competitively or just to have fun with a crew. Collapse

source: https://www.metacritic.com/game/playstation-4/fortnite/user-reviews
Appendix 12—Fortnite, Theguardian.com comment No. 1

BartyCrouchJunior 7 Mar 2018 13:04
It is proving far more addictive than any other game my son has on Xbox. It's the first shooter game we've allowed, although we've discussed this aspect of it and I've made my peace with that now. But I do have a problem with yet another game with unrealistic body images on both the male and female players. Far too macho and overly muscled on the men and the whole skinny waist, big booted women. But sure, the dancing is funny...


Appendix 13—Fortnite, Theguardian.com comment No. 2

MinusZero 7 Mar 2018 13:04
13 yr old son is completely obsessed with it and spends every minute he can either playing it or watching YouTube videos about it. Never heard him mention any humorous side to it, takes it very seriously, all I hear is references to “nice headshot!” and lots of frustration when the network lags. His addiction is causing lots of arguments at home.


Appendix 14—Fortnite, Youtube.com (Daily Clips Central) comment No. 4

Sniper God II 3 dni temu
I did 5 weeks of no fortnite I feel less stress I done with fortnite.

source: https://www.youtube.com/watch?v=KGdFsHjmAH8&t=407s
Appendix 15– League of Legends map scheme (three main lanes and two bases: blue and red)


Appendix 16– League of Legends, Metacritic.com comment No. 1

source: https://www.metacritic.com/game/pc/league-of-legends/user-reviews
Appendix 17– League of Legends, Metacritic.com comment No. 2

Roxer

Very fun and addictive game, but the community is SO toxic. It's a very good game.

0 of 2 users found this helpful

source: https://www.metacritic.com/game/pc/league-of-legends/user-reviews

Appendix 18– League of Legends, Metacritic.com comment No. 3

davekinf

it is my favourite competitive game, if i don't calisfiee ii with a 10, it is because it has the worst player comunit.

0 of 0 users found this helpful

source: https://www.metacritic.com/game/pc/league-of-legends/user-reviews

Appendix 19– League of Legends, Metacritic.com comment No. 4

goodapplepie

Pretty fun competitive game with decently high skill ceiling and interesting champions. Balancing is mostly good considering how much there is to balance, major mistakes happen but are quickly fixed by frequent patches. Community is bad, sure, but not worse than other competitive multiplayer games. People get wrapped up in the competition, tilt and say whatever they want because it is the internet and there are no consequences. It is a problem though but I don't see any other game doing as much against it as lol does. I wouldn't advise to play lol exclusively, play other games to cool down. Collapse ▲

0 of 2 users found this helpful

source: https://www.metacritic.com/game/pc/league-of-legends/user-reviews
Appendix 20– League of Legends, Official game forum comment No. 1

i've become toxic.
Sir Poppus (EUW) submitted about 23 hours ago in Player Behaviour

in my recent games i can't resist but flame a little if someone were to int (like going 0/8 in less than 20 mins) or to afk

i've finally become toxic.

i can blame it to many things, stressful period blabla, but the truth is... i've become toxic because it is the norm in this community, the environment you're in slowly but surely will change you and i can't believe there are people who can keep being always buddha like when your team is not putting the minimal amount of effort to not make your game experience miserable


Appendix 21– League of Legends, Metacritic.com comment No. 5

TomSarran Aug 8, 2018
I don't know how I feel about this game. It's been one of the biggest things in my entire life. I haven't played in over a year, but I had been playing for almost 9 years, and I reached the top 1% of players. I was so proud as well but the game is honestly not fun. I was not playing for fun. I was playing out of addiction. This game is toxic and extremely frustrating, but then again I had some of my best memories staying up all night and playing this at sleepovers with my friends. I feel like both giving it a 10 and giving it a 0, so i'm just going to give it the in between. Collapse ±

source:  https://www.metacritic.com/game/pc/league-of-legends/user-reviews
Appendix 22– League of Legends, Metacritic.com comment No. 6

This multiplayer online battle arena, in general, is quite fun and addictive. "League of Legends" offers a vast variety of characters with over 140 champions to choose from, meaning it is entirely possible to discover someone who fits one’s playstyle. Mastering said character comes with great rewards, and it is a sensational and challenging experience to utilize this champion in different scenarios.

This MOBA, as any other, comes with the components of strategizing and adapting. No two matches are the same, so accommodating to the current situation is just as crucial as weighing out priorities is.

Riot is also constantly updating "League of Legends", meaning that the game is ever-changing. New characters, skins, items, and game modes are released periodically, and some existing champions are instead reworked to fit the current layout of the game.

The company also does an acceptable job at handling the perpetually angry and demanding community. For example, if someone is being a bit of a handful during a certain match, this individual can be muted, which means that his/her messages will not be shown. After the match, players can report this person, and Riot personnel will review these claims. If they find these accusations to be truthful, said player will be banned, and those who reported him/her will be rewarded accordingly.

Overall, I would highly recommend "League of Legends" as it is easily enjoyable due to its mechanics and constant adjustments, and, although the community can sometimes be stereotypically toxic and bothersome to deal with, the general thrill of the game and the fact that it is completely free to play smoothly make up for it.

source: https://www.metacritic.com/game/pc/league-of-legends/user-reviews

Appendix 23– League of Legends, Youtube.com (LoL) comment No. 1

bought it already with the icon and the border. love this skin :)

source: https://www.youtube.com/user/RiotGamesInc/community

Appendix 24– League of Legends, Youtube.com (LoL) comment No. 2

Genuinely GENUINELY the best skin created by riot games, keep up the good work design team

source: https://www.youtube.com/user/RiotGamesInc/community
Appendix 25– Customer Behavior Survey: Age distribution

What is your age?
103 responses

source: own elaboration

Appendix 26– Customer Behavior Survey: Gender distribution

What is your gender?
103 responses

source: own elaboration
Appendix 27 – Customer Behavior Survey: Reasons for not playing video games

Why don’t you play video games? Choose all that apply.
43 responses

- a. Never tried: 4 (9.3%)
- b. Video games are boring: 7 (16.3%)
- c. Video games never appeal to me: 21 (48.8%)
- d. It is a waste of time: 20 (46.5%)
- e. I don't know how to play: 4 (9.3%)
- f. I don't have time to play: 26 (60.5%)
- g. Video games are for kids: 6 (14%)
- h. Other: 5 (11.6%)

source: own elaboration

Appendix 28 – Customer Behavior Survey: Average hours of playing per day by players

On average how many hours do you spend on playing video games in a day?
60 responses

- a. Less than an hour: 30%
- b. 1-2 hours: 11.7%
- c. 2-4 hours: 8.3%
- d. More than 4 hours: 50%

source: own elaboration
Appendix 29—Customer Behavior Survey: Motivational factors for gaming

Which factors do you think motivates players (or you) to play video games? Choose all that apply.

103 responses

- a. Enjoyment/entertainment: 90 (87.4%)
- b. Emotions catalyst (e.g. to give vent to emotions): 45 (43.7%)
- c. Competition (competing with other players): 58 (56.3%)
- d. Experiencing unreality and escapism: 42 (40.8%)
- e. Autonomy of choice (e.g. on how to choose the game): 49 (47.6%)

Source: own elaboration

Appendix 30—Customer Behavior Survey: Individual motivational approach towards games

Source: own elaboration
Appendix 31– Customer Behavior Survey: Does playing affects the way people act

Do you believe that playing video games affects the way people act (positively and negatively)?

103 responses

Source: own elaboration

Appendix 32– Customer Behavior Survey: The way games effects players

Do you think that playing video games brings more positive or negative effects to players?

84 responses

Source: own elaboration
Appendix 33—Customer Behavior Survey: Perception of selected games’ effects

source: own elaboration

Appendix 34—Customer Behavior Survey: Fortnite players

Do you know and ever played Fortnite: Battles Royal?
103 responses

source: own elaboration
Appendix 35 – Customer Behavior Survey: League of Legends players

Do you know and ever played League of Legends (LoL)?
103 responses

- 62.1% Yes
- 37.9% No

source: own elaboration
Appendix 36– Customer Behavior Survey: Fortnite

source: own elaboration
Appendix 37– Customer Behavior Survey: Fortnite marketing approach

<table>
<thead>
<tr>
<th>Do you know and ever played Fortnite?</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

source: own elaboration

Appendix 38– Customer Behavior Survey: League of Legends

source: own elaboration
Appendix 39 – Customer Behavior Survey: League of Legends marketing approach

<table>
<thead>
<tr>
<th>Do you know and ever played League of Legends</th>
<th>a. Yes</th>
<th>b. No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Male</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>b. Female</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

source: own elaboration