

Thesis: Positioning EasyAntiCheat in the gaming industry

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<p>The following report was a qualitative research based thesis, commissioned by a company called EasyAntiCheat, providing anti-cheat services for multiplayer online games.</p> <p>The goal of this thesis was to provide EasyAntiCheat with information about the current and future trends in the gaming industry to possibly decide on the company's next steps. Also a competitor analysis was conducted to understand where the competition positions in the market.</p> <p>The concept of Positioning was discussed in detail, not forgetting the customer need analysis and market segmentation. Positioning from the business-to-business perspective is still quite uncharted, thus the theoretical framework is fairly limited. Since the gaming industry is rapidly changing, there is a very limited amount of literature sources used in the actual industry analysis. Several other sources were analyzed to gather information concerning the gaming industry trends. The research was done as a qualitative desktop study. Also two interviews were conducted regarding the commissioning company and their competitors, and, the future of the gaming industry.</p> <p>In conclusion of the gathered information, EAC is a strong competitor in the anti-cheat market. New technologies keep the industry alive and the revenues continue rising each year. PC gaming continues blooming even though mobiles and tablet games are gaining popularity.</p> <p>EAC does continuous research and tries to stay ahead of the competition. Providing the prospects a "plug to play" –demo is a big asset to the company. Some weaknesses and threats still exist for the company but EAC is a strong competitor in the market which keeps on thriving.</p>	
<p>Keywords Positioning, Competitor analysis, Gaming industry, Gaming, Multiplayer games</p>	

Table of content

1	Introduction.....	1
1.1	Background.....	1
1.2	Research Question and Demarcation.....	2
1.3	Company Introduction	4
1.4	Cheating in Multiplayer Video Games	6
1.5	Key Concepts	8
2	Positioning	10
2.1	Positioning as a concept	10
2.2	Market segmentation.....	16
2.3	Needs Analysis	17
2.4	Competitor Analysis.....	21
2.5	SWOT –analysis.....	23
3	Methods.....	25
3.1	Research Design.....	25
3.2	Research and Data Collection Methods.....	26
4	Results.....	27
4.1	The Gaming Industry in Numbers	27
4.1.1	Current Trends.....	29
4.1.2	Future Trends.....	30
4.2	Key competitors and success factors.....	34
4.3	SWOT analysis for EAC.....	40
4.4	Competitive Advantage for EAC.....	41
5	Discussion / Conclusions.....	44
5.1	Key findings.....	44
5.2	Recommendations	45
5.3	Further Research.....	45
5.4	Validity and reliability.....	45
5.5	Analysis of learning.....	46
5.6	Company Feedback.....	48
	References.....	49

Attachments.....	56
Attachment 1. PunkBuster Major Features	56
Attachment 2. Customer Buying Process	57

1 Introduction

After reading this chapter, the reader will get an overview on the thesis topic and the research question. The case company, EasyAntiCheat, and their area of business will be presented in more detail in the subchapter 1.3 and information about the industry in chapter 1.4. Also key concepts will be discussed in the chapter 1.5.

1.1 Background

“Just how seriously should you as a developer take the possibility of online cheating? If your game is single-player only, then you have nothing to worry about. But if your game is multiplayer only, the success of your entire product is at stake.” (Pritchard 2014.)

This thesis is done for a start-up company, EasyAntiCheat (also referred to as EAC), which is a company providing anti-cheat services for multiplayer online games and is located in Espoo, Finland. The task is to write a comprehensive thesis regarding their positioning on the current and future market in the gaming industry. EasyAntiCheat is an International company and they have potential clients all over the world. Understanding where EAC stands on the market will help the company in creating a functioning marketing plan as well as selling their services to game developers. It is hard to sell a service to potential customers when you have no documentation on how your company differentiates from the competition.

EAC has segmented the market a little bit already by deciding to focus on specific markets and realizing that not all markets function the same way. Some need more attention than others, and for example professional translators can be needed.

The concept of Positioning will be discussed in detail accompanied with competitor and market analysis. Finally some suggestions are provided for the company and further research ideas presented. The aim of this research is to understand where EAC stands in the market and what is their position among competitors.

Benefits

The findings of this research will provide EAC information about their position in the market and therefore will aid the customer acquisition process. This will bring the company valuable information on how to improve their service. The results can also be used as a base for a marketing plan for the company.

The possible outcome of this thesis is also to get more visibility to the problem of cheating in multiplayer online games and therefore more customers to EAC.

This research will benefit the author on a personal level, professionally and academically. Project management and especially research skills improve. Getting documentation of the acquired academic skills will be an asset for future purposes. Learning about positioning can be of help in many ways, for example when positioning myself among other job seekers. Learning about the basic principles of positioning is important to be able to work in the field of marketing. Since I hope to get employed by EAC after this research is done, getting familiar with the competition and market is vital.

1.2 Research Question and Demarcation

My Research Question (RQ) is “How to position EasyAntiCheat in the Gaming Industry?”

Based on the information above, my Investigative Questions (IQ's) are the following:

IQ 1: Who are the competitors globally?

IQ 2: How does the competition position their products and services?

IQ 3: What are the current and future trends in the gaming industry?

IQ 4: How to position EAC's products and services?

The IQ's were chosen based on the information needed to be able to position EAC. Getting familiar with the competition and the industry is the base for any marketing plan.

Table 1. Overlay Matrix

IQ number	Theory chapters	Methods	Result chapters
IQ 1: Who are the competitors globally?	2.4	Desktop study + interview	4.1
IQ 2: How does the competition position their products and services?	2.1, 2.4	Qualitative research of customer (end user) perspective	4.1
IQ 3: What are the current and future trends in the gaming industry?	3.2	Desktop study	3.2
IQ 4: How to position EACs products and services?	2.1, 2.5	Desktop study	4.2, 4.3

Demarcation

The demarcation was done based on the nature of the thesis topic. In order to understand where EasyAntiCheat positions in the market, a study about the competitors and their success factors and challenges was necessary. Also, learning about current and future trends in the Market will assist me in understanding where the Market is going and how EAC will need to adapt along with it. This will also be helpful when planning the company's next steps especially if EAC wants to stay ahead of the competition. Potential customers of the company are game developers from anywhere in the world. Since the company sells to other businesses, I am focusing on Business-to-Business and Business-to-Market aspects, and that is why consumer markets have been left out of the research. For example when analysing the customer buying process, only B-to-B aspects are analysed and this will show in the results as well. Understanding how the end-user can affect the buying process for example, will be taken into consideration in the research.

The commissioning company shared their vision on their biggest competitors and the focus is mainly on them. Other potential competitors found will also be taken into the analysis. As discussed later, the competition does not share information about specific features and their pricing or sales figures to protect themselves from competition. For

the same reasons the commissioning company requested that this research should not include too specific information about their core features, pricing systems, and the like.

The markets chosen for this research are Europe and the United States of America since they are the most relevant markets for EAC at the moment. Eastern Europe will be analysed in more detail due to the high number of players. Since I am making this thesis for a company whose potential clients can be from anywhere in the world, the research area could not be narrowed down much further and taking all markets into consideration would have made this thesis too wide. That is why other markets will be completely left out of this research.

I will gain a good understanding of the competition and the market by answering to the four investigative questions above. All four questions are relevant and helpful in creating a solid base for this thesis. This research is restricted to the Research Question and Investigative Questions mentioned in Table 1.

1.3 Company Introduction

The information gathered for this chapter is a result from an interview with founders Simon Allaeys and Aarni Rautava on 22 Jul 2014 in Startup Sauna, Espoo.

EasyAntiCheat is a Finnish start-up company founded in 2006. The idea of EasyAntiCheat is to protect players against unfair cheating. Online multiplayer games are an easy target for hacking and cheating since the personal pleasure of physical reward can be notorious. This is why EAC exist and wants to protect the games. “With EasyAntiCheat, you’ll never have to worry again about cheaters gaining an unfair advantage (EasyAntiCheat, 2014)”. Cheating in multiplayer games will be elaborated in the chapter 1.4.

Game developers buy the service which will be integrated with the game itself. When gamers want to play the set game, they will have to download the anticheat on their computer as well and this will prevent the player from cheating during the game. They cannot play the game without EAC and this obligates them to play fair. Persistent

hackers will try to create new cheats to surpass EAC and sometimes they succeed – until the cheat gets detected and the player banned. This also forces the player to buy the game again in order to continue playing.

Aarni Rautava was fourteen years old at the time of foundation of the company, and was hacking games and enjoyed destroying gaming communities. His mission was to destroy Finnish anti-cheat communities. At some point Aarni met Valtteri Kiviniemi online and threatened to destroy Valtteri's servers. Valtteri challenged Aarni to create an anti-cheat which could not be hacked and Aarni took the bait. This is also something that makes EasyAntiCheat special; the game codes have been written by hackers and not by cheat haters who do not hack themselves. This enables an extensive view on product development.

After some years of working with EasyAntiCheat, Aarni was ready to quit – the updates took too much time and many of the supported games started to lose their popularity. Luckily Aarni had met Simon Allaey in 2009 who studied Marketing and Service Design. When Aarni told Simon in 2013 that he is planning to continue studies and quit EasyAntiCheat, Simon suggested they could team up with Valtteri and work for EAC together. Simon quit his job to work for EAC full-time and in the autumn of 2013 the boys participated in Start-Up Sauna and found out that there is still a need for this service. They met Mikael Honkavaara at the event and received valuable advice and honest feedback from him. Now Mikael Honkavaara is an advisor for EasyAntiCheat.

Currently EasyAntiCheat employs three men who work actively on software development and customer acquisition. EAC is based in Start-up Sauna in Espoo, Finland. It is a creative and innovative surrounding which aids in product development and marketing planning process.

1.4 Cheating in Multiplayer Video Games

This chapter focuses on the problems the case company handles on daily basis. Getting an overview on why EAC exists and why this thesis is relevant is crucial for the reader to understand why such company needs positioning. Understanding the principles of cheating in multiplayer online games will help the reader comprehend the structure of the theoretical framework of this thesis.

According to The Entertainment Software Association (2014), 62 % of American gamers play with others, either in person or online. 77 % of the gamers play with others for at least an hour each week and 47 % of gamers play social games in general. On average 25 % of Europeans play at least once a week and 81 % of all players play games online (ISFE 2012). The numbers of gamers are big and naturally the number of cheaters grows along with the popularity of the game. The more popular a game gets, the more players will be involved and the more cheaters will find their way into the game as well.

Cheating in PC games has become more common (Lan, Zhang & Xu 2009). The more recognition a game gets, the more it will encounter cheaters (Pritchard 2000). Before Internet got big, players of multiplayer games were required to play in the same room together and they could monitor each other and make sure nobody cheated. Now that Internet is becoming widely accessible, people can play from the security of their own homes and there is no one to monitor their foul play. This means that gaming companies will have to supervise the gamers in other ways. This task is difficult; some game practices may be considered acceptable by some gamers while others think it is foul play. There are no clear rules on what is cheating that could be applied to all games and players around the world. (Chen & Wu 2013.) An example of this is Glitching. Glitching is a flaw in the game itself, which is a result of a mathematical mistake (Wikihow 2014). Sometimes when game developers build the game, they make mistakes in the coding – for example a tiny hole in between the walls in the playing field which can enable players to go behind the wall and shoot other players from there. The glitches can also enable players to walk underneath the map and get past difficult situations without the fear of death.

People cheat for different reasons: to get recognition by the game community and to be declared as the best player, to win tournaments and money, or to destroy the gaming community. (Rautava, 22 July 2014.) No matter what is the reasoning behind the cheating, it continues to be a big problem for other players as well as the game developers. Cheating gives the player an unfair advantage in the game. The cheater can use for example speed and fly hacking to move faster in the game and to avoid obstacles. When fly hacking, the cheater will literally fly above the playfield and therefore will be harder to kill. When playing in a single player game, cheating will only affect your own game but in multiplayer games it affects the other players as well. People play to entertain themselves and cheaters can ruin the gaming experience for these people. Gamers who play professionally can lose the progress they have worked hard for, due to a hacker who steals their earnings and profits. This can mean multiple hours of lost work. After a cheater has been caught and punished accordingly by the anti-cheat system, it leaves an impact on the cheater. Some players might stop cheating right then and there, others will try smarter cheats to stay undetected, and, some will continue cheating regardless.

7 Days to Die is a survival game launched in 2013. In the table below are the results from a poll that took place in 7 Days to Die's support forum. The answers are collected on 29.10.2014 at 14:26.

Table 2. How bad is cheating in 7 Days to Die. (7 Days to Die support forum, 2014.)

How bad is the cheating in 7 Days to Die?	Voters: 624	
Not a problem to me	206	33,01 %
Sometimes it's a problem	116	18,59 %
It's often a problem	77	12,34 %
It's a big problem	225	36,06 %

The players were asked a question about the cheating problem in the game and the results show that nearly 67 % of the respondents considered cheating a problem in the game, and over 36 % thought it is a big problem.

Online multiplayer games are played anonymously. A player creates an alias or an avatar and all communication is handled through this character. *Deindividuation* is a term used to describe people who meditate, become engrossed in a task or a hobby, or, become members of a large group. By immersing into a large group means losing one's individual identity and therefore incorporating the social status of the group. So for example when two groups argue, it feels like two people would be arguing. The three elements related to deindividuation are *anonymity*, *scattered responsibility* and the *large size of the group* highlights the two aforementioned elements. Becoming a member of a group divides the responsibility among the group members, thus, you feel less responsible of your actions. (Changing minds 2014.) For example, one could think that it is acceptable to bully someone since “everyone else does so too”. When playing Multiplayer online games and cheating in them, deindividuation can be behind it. Seeing and treating other players as avatars instead of humans and forgetting that stealing someone else's gaming's can cause the player exasperation and sadness.

1.5 Key Concepts

The following concepts are important for the reader to familiarize with, in order to understand the theoretical part of this research.

Start-up

A Start-up is a term often referred to a relatively new company trying to build a successful business. It is hard to define a start-up since the employee numbers and profits can vary drastically. According to Forbes (2013) a start-up often ceases to be a start-up when it becomes profitable. Steve Blank, an awarded lecturer at Stanford University describes start-ups as follows: “a startup is an organization formed to search for a repeatable and scalable business model.”

Gaming industry

When talking about the gaming industry, I mean especially all multiplayer games played online – mostly on a computer. This includes both paid and free-to-play games.

Multiplayer video games

In a multiplayer game more than one person can play in the same game environment either as a single-player or as a team. When playing in a team, a group of gamers play together in order to achieve common goals.

Support Forums

Support forums are often game specific websites where visitors are given the possibility to discuss with each other by messages. Game developers and other parties can also participate in the discussions. Users can create new topics known as ‘threads’ to attract visitors to discuss a specific matter. Often it is possible for anyone to read the threads but commenting is only allowed for registered users. (Techterms 2014.)

Positioning

“Positioning is the act of designing the company’s offering and image so that they occupy a meaningful and distinct competitive position in the target customers’ minds.” (Kotler 1997. In Hooley, Piercy & Nicoulaud 2012, 184).

Segmentation

Where there are differences in customer needs and wants, or attitudes and predispositions towards the offerings of the market, there are opportunities to segment the market. In other words the larger market can be subdivided into smaller segments that provide market targets. (Adapted from Hooley, Piercy & Nicoulaud 2012, 187).

Competitor Analysis

In order for a company to be successful, they must provide greater customer value than competitors do. (Adapted from Kotler & Armstrong 2014, 94).

2 Positioning

This entire chapter focuses on the main theoretical concepts of positioning. The picture below shows the theoretical framework in short.

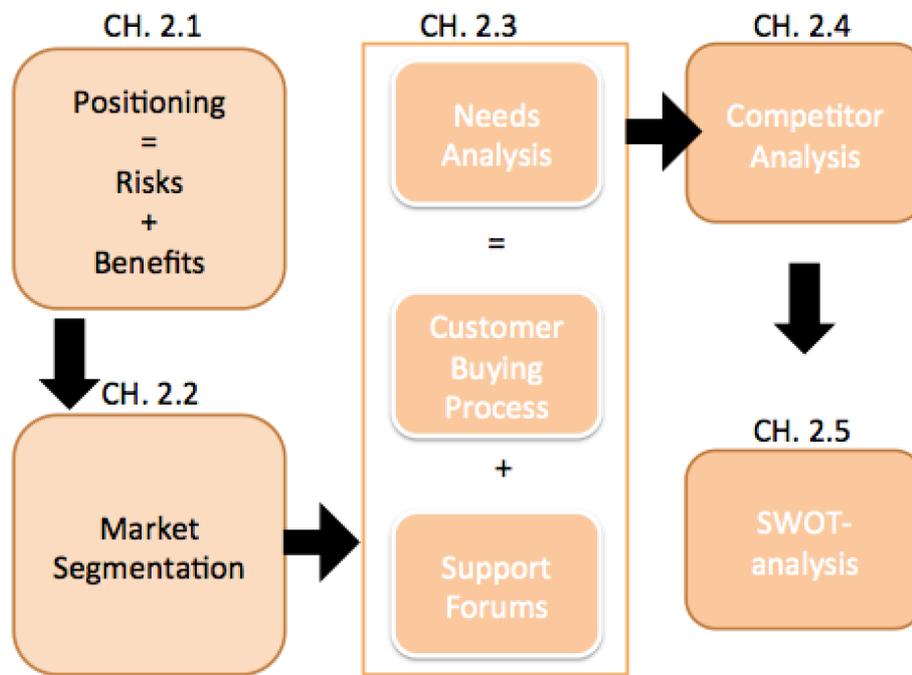


Figure 1. Theoretical Framework

The concept of positioning will be explained in subchapter 2.1. Market Segmentation will be explained in Chapter 2.2 and Needs analysis in Chapter 2.3. Competitor analysis will also be part of this theoretical framework and discussed in Chapter 2.4. Finally, SWOT-analysis will be discussed in chapter 2.5.

2.1 Positioning as a concept

“Positioning is the act of designing the company’s offering and image so that they occupy a meaningful and distinct competitive position in the target customers’ minds.” (Kotler, 1997. In Hooley, Piercy & Nicoulaud, 2012.)

Consumers are overloaded with information about products, brands and services. When deciding what to buy, consumers will organize the brands in their head by cate-

gories and therefore position them in their minds. The position each product take is a combination of the feelings, experiences, advertisements, preferences and habits of the consumer. (Kotler & Armstrong 2014, 232). This makes positioning very challenging.

According to Hooley, Piercy and Nicoulaud (2012, 183) there are two different concepts; Competitive Positioning and Market Segmentation, and they are linked together by Customer Needs. The figure 2 below shows this connection very clearly. These two concepts, market segmentation and competitive positioning, are very powerful on their own but at the end of the day, it all comes down to satisfying the customers' needs better than the competition does. As reported by Ries and Trout (2001, 2) positioning is not done to the product itself but to the mind of the prospect, thus the goal is to position the product into the mind of the possible client. As we can see in the figure 2 below, Competitive Positioning is about how the customer perceives all the alternatives available, for example how Samsung and Huawei compete in terms of value, quality and image (Hooley et al. 2012, 183).

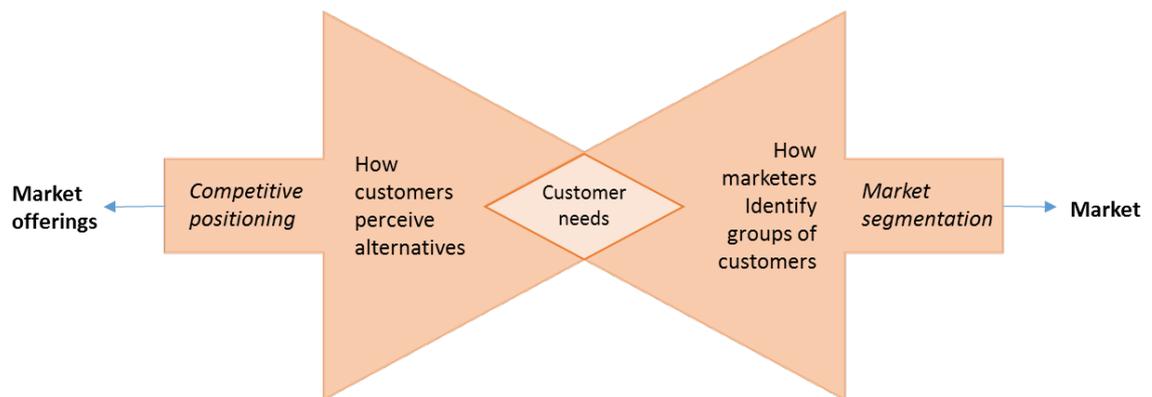


Figure 2. Competitive positioning and market segmentation. (Hooley et al. 2012, 183)

Market Segmentation is done by marketers to identify customers, and to divide them into groups (segments). For example, what are the characteristics of customers and how these characteristics affect their buying behavior. Like mentioned before, customer needs are what truly matters. Providing the customers what they need is essential to understand the market. When doing customer segmentation, marketers need to look for the things that benefit most of the potential customers, and, position themselves so

that said customers choose the marketers' products or services for fulfilling their personal needs the best. (Hooley et al. 2012, 183.)

According to the Figure 2 above, the planning process should start by segmenting the market and understanding, which customers belong to which segment. Choosing the target markets is the next step – understanding which market suits your marketing needs the best is extremely important for the marketing plan to work as effectively as possible. After this the actual positioning takes place. Identifying the competitors positions can and should be used to develop your own. It is important to understand the different positions of competitors to help you realize why some markets are attracting customers and some are not. (Hooley et al. 2012, 183). This can help any company to develop their position by changing the way they segment the markets.

Positioning can be done to a company, a product or service, a brand or even a person (Ries & Trout 2001). Ries and Trout give multiple examples in their book, *Positioning: A Battle For Your Mind*, on how to position companies, churches, islands and even your own career. Hooley, Piercy and Nicoulaud (2012, 186) say it well: “You do not buy coal, you buy heat; you do not buy circus tickets, you buy thrills; you do not buy a paper, you buy news; you do not buy spectacles, you buy vision; you do not sell products, you create positions”. And that is exactly what competitive positioning is all about.

Al Ries and Jack Trout (2001, 193-199) say there are six questions you need to ask yourself when positioning your business;

1. What position do you own?
2. What position do you want to own?
3. Whom must you outgun?
4. Do you have enough money?
5. Can you stick it out?
6. Do you match your position?

These questions will give a good guideline when figuring out any company's position in the market. Realizing where you are now and where you want to be in the future, will help goal setting and competitor identification.

There are risks when it comes to positioning. In the table below these risks are illustrated and explained in more detail.

Table 3. Positioning risks and errors. (Hooley et al. 2012, 186)

		Uniqueness claimed	
		Narrow	Broad
Credibility	Believable	Over-positioning Too exclusive or narrow	Under-positioning Nothing special
	Less believable	Doubtful positioning Improvable claims	Confused positioning Unclear what the Position is

Over-positioning means that a customer has a very limited view of the company or a brand, and for example a customer might think that company X only provides products in a specific price range – normally expensive – and is completely unaware that this company also sells affordable versions of the product. **Under-positioning** is the contrary – customers have unclear views of the company or product and do not find it special. **Doubtful positioning** is a hard situation to be in. The company can try to make a statement and create a position but they might not be accepted – whether or not the statements are true or false. **Confused positioning** is a result of complicating and ever-changing messages that confuse the consumer. (Kotler 1997. In Hooley, Piercy & Nicoulaud 2012, 186.)

Creating a good, strong positioning plan is challenging. You never get a second chance to make a good first impression (Ries & Trout 2001, 14). Keeping the risks in mind

and creating a comprehensive competitor analysis is necessary for the positioning plan to work. Sometimes it is a challenge to position your company on a crowded market. A new company will face difficulties trying to position themselves among big, strong companies, and it is extremely difficult to get to the position of being the number one. For an unknown company to compete with market leaders is nearly impossible without excellent positioning. Repositioning the competition is challenging but possible. Al Ries and Jack Trout (2001, 61) explain that there are hundreds of variations and brands for each product and it makes the market entry for new products extremely difficult. An average supermarket has thousands of items on the shelves. This means that a customer has thousands of brands and products to sort through in his or her head before leaving the store. When there are so many products available, how can a new product enter the store when finding a niche in the market can be nearly impossible? Ries and Trout claim that the answer is to reposition the competition in the prospects mind. For example butter manufacturers can make advertisements and tests proving that margarine is unhealthy and full of dangerous ingredients. Explaining to the customers how pure butter is tastier and the fats are healthier, can make all the difference in the prospects mind. (Adapted from Ries and Trout 2001, 61-62.) For many parts this is exactly what happened in Finland, people switched their diet products to full fat ones and are happier than ever – until the fatty products are repositioned. “People like to watch the bubble burst (Ries and Trout 2001, 62)”.

Each company needs to communicate with the customer and the end-user.

Communication means sending two-way messages between the sender and the recipient (Hooley et al. 2012, 309). According to the Economist (1st Feb 2014) Westerners are exposed to over 3,000 logos each day – to some more than once a day. Walking down the streets of any big city is an information bomb; there are neon signs everywhere, billboards, light poles, and bus stops are all filled with messages. Not to mention the flyer you got on your way to the supermarket. (Adapted from Lamoureux). Ries and Trout (2001, 11) claim that only a small fraction of the messages we receive gets through and not always are those the most relevant ones.

To get a message through on this over communicated world, it is important to create a clear message and utilize some basic communications model. AIDA is the abbreviation for *Awareness, Interest, Desire* and *Action*. To begin the process of communication, a company needs to make the customers **aware** of the services or products offered. How can a customer buy the product if they do not know it exists? In the launching state this is extremely important, and especially if the product is new on the market customers might need information on what the product is and what it does. After customers are made aware of the product, they need to be made **interested** in it as well. As mentioned before, people receive thousands of messages each day and they certainly will not be interested in all of them. When introducing a new product, customers need to be informed on the benefits and new features of it. (Hooley et al. 2012, 309.) Does it have longer battery life? Is it more convenient in size perhaps?

After customers are made aware and interested in the product, **desire** towards the product should be created. An example of this is Apple's iPad. Apple wanted to make the iPad the hottest and coolest MP3 player to own and targeted their marketing to 15-30 year olds. They succeeded in their marketing efforts so well that even the more mature markets got interested in the product and now the iPads original position is at risk. Finally, **action** needs to be stimulated in the customer so that they reach out and buy the product. Offers, promotion codes and other deals help taking the customer to the next stage, which is purchasing. (Hooley et al. 2012, 309-310.)

When it comes to communication, many decisions need to be made before starting to spread any messages. Firstly, deciding what message you want to send. Short, clear messages stick easier and spread faster. It will also help the customers to *accept* the message faster and create a better position for your product in the minds of the prospects. An important part of the process is translating the message into a clear manner so the prospect will be able to internalize the message. Deciding on what marketing tools to utilize is also something to think about. Sales promotions, guerrilla marketing, direct marketing or personal selling are some of the possibilities. Some of these focus mainly on the advertisement and awareness, and others try to create actions from the customer. Electing the right media channel can make all the difference

regarding the success of the campaign. TV commercials, printed advertisement, internet, e-mails, radio, et cetera. The possibilities are endless and reaching the right target audience and getting the right message out is a challenge. Finally, the budget needs to be set. (Hooley et al. 2012, 310.) Big company with bigger resources have more possibilities and smaller companies need to get creative. The sky is the limit when it comes to communications and marketing.

2.2 Market segmentation

According to Kotler and Armstrongs glossary (2014, 677), market segmentation means "dividing a market into smaller segments of buyers with distinct needs, characteristics, or behaviors that might require separate marketing strategies or mixes". Since this research focuses on business-to-business aspects, all business-to-consumer perspectives are left out of this chapter. Market segmentation for the business market is less developed and therefore can affect the information search and can also make the use of different approaches more acceptable. Hooley, Piercy and Nicoulaud state that when it comes to business marketing, market segmentation is not as developed as it is for consumer markets. This can affect the research due to lack of information. (Hooley et al 2012, 200.)

Shapiro and Bonoma (1990) created a model of three topics that should be taken into consideration when segmenting a market. The *background company characteristics*, *attitudinal characteristics* and *behavioural characteristics*. As for the background, it is useful to know where the potential customers are located, what is their size, what is their buying process and do they need much technical support. Attitudinal characteristics vary wildly from one company to another. Bigger companies might have decision-making units (DMU) where a group of individuals make decisions together instead of one buyer. They all have different opinions, experiences, habits and perceptions of what is for the best of the organization. When discussing with different representatives of the DMU, different qualities and benefits should be emphasised. Behavioural characteristics also include the above mentioned things but also products status and volume affects the market segmentation. For example current and lost customers most likely are of different segments. (Hooley et al 2012, 200-204.) Lost customers obviously

did not like something about the product and are looking for something different. Understanding what went wrong with these customers is important to prevent this from happening again in the future.

According to Hooley, Piercy and Nicoulaud (2012, 205), the most essential way of segmenting markets is to group customers by what benefits they are looking for in a product. For example, women needing a new foundation can be segmented into groups by who wants matte finish, who wants full coverage and who just needs to hide a few flaws. All are looking for a foundation but the benefits wanted are different. That is a good place to start the segmentation process. It is good to keep in mind that people looking for the same benefits might have different media habits and thus serve as more specific targets for the company's services (Hooley et al 2012, 204-205).

Segmenting markets is extremely beneficial for companies. Hooley, Piercy and Nicoulaud list five benefits of segmentation. Especially smaller companies can find segmentation beneficial because it gives an *opportunity* to match markets with company's competencies and therefore create a niche in the market. Segmentation also helps to *discover gaps* in the market. Is there a possibility for product development? Mature markets offer a chance to *pinpoint segments that are still growing* and can be seen as a major strategy when the rest of the market is declining. Marketers can use segmentation to *match their product with the customers* and their needs. Stronger position can be created and therefore a stronger competitive advantage. Finally, not segmenting can cause loss of above mentioned benefits and cause the company to fall in between by not using a more focused marketing strategy. (Hooley et al 2012, 205.)

2.3 Needs Analysis

This subchapter focuses on customer needs and customer buying process. Need is the first stage of a customer decision process; the customer recognizes that there is a need or a problem that requires a solution. So need states the felt deprivation of something. (Kotler & Armstrong 2014, 678.)

Kotler and Armstrong (2014, 28) argue that the most basic marketing principle regarding needs are those of humans. Humans need food, shelter, safety, whereas social needs include belonging and affection, and individually humans need to express themselves and gather knowledge. Wants are formatted through culture and one's individual personality. For example, an American *needs* food but *wants* a hamburger meal with french fries and a soft drink. A Brazilian *needs* food but *wants* barbeque with rice and beans. When we add a person's purchasing power into the mix, wants become *demands*. When combining the needs and resources, people demand products and services that bring the most value and satisfaction. A person might want to buy a 15 € hamburger in a restaurant instead of a Big Mac because they get more value and satisfaction for their money. (Adapted from Kotler & Armstrong 2014, 28.) That is why people choose the more expensive bread or eggs – they value the fact that the eggs are organic or the bread is made of rye instead of wheat and are willing to pay for it.

The needs of customers are fulfilled by market offerings. The offerings are a combination of services, products, experiences and information, and exist to fulfill a *need* or a *want* and not always are they limited to tangible items. Hotels, train tickets and home repair services are examples of intangible services. Market offerings can also be places or pieces of information. (Kotler & Armstrong 2014, 28.) Often, for example, countries promote themselves or some famous attractions of theirs. Information about hygiene or the government's food recommendations are also offered to people. This information wants you to choose a healthier salad over candy or Brazil over Peru. Educating the people and influencing their decision making process is the goal.

Sometimes sellers make a mistake of paying too much attention to the product or service itself and neglecting the needs and wants of the customer by not showing the benefits and experiences these products produce. This is called Marketing myopia. (Hooley et al 2012, 29.)

Customer Buying Process is part of the needs analysis since understanding how customers do their purchasing decisions can alter the way a company does marketing or communicates to customers. There are many models for different customer and

markets but in this research we focus on the business-to-business aspects, as well as the general theories of customer buying process. The basic process of EAC can be found as Attachment 2.

Finding information on customer buying process is not difficult. In fact, Google search gives millions of search results in less than a second. As mentioned above, there are different models for different customer segments but the one used in this research is illustrated below.



Figure 2. Customer Buying Process.

This figure sums the main topics of the process in a clear way. Where everything starts is in the mind of the customer. The customer creates a *need* for something. May it be triggered by basic human instincts (internal stimuli), such as food, or by a commercial on TV (external stimuli), the result is the same: how to fulfil this need? There must be a need or a problem before any purchase decisions are made. After a need is awakened, the customer might research which option could fulfil this need the best and most efficient way. Often Internet or word of mouth is used for this step but other means do exist. Next the customer will evaluate the information gathered. Depending on the attitude of the customer, either one or more companies or brands will be evaluated. After concluding the three steps, customer will make a decision on what to buy. At this point only the feedback of an unhappy customer, or a sudden financial difficulty can alter the customer's decision. Once the product or service has been bought, the customer will

compare it to previous experiences and decide whether the purchase was good or not. If the customer is happy, it will hopefully result in brand loyalty but in case the customer is not satisfied, they might express their feelings through online product reviews or other channels. Keeping the post-purchase talk positive is a challenge for any company. (Johnston 2013; Perreau 2014)

Support Forums

Web forums are an online discussion platform where users can create topics (threads) and discuss with other likeminded people. Posting is anonymous and often requires registration. In the gaming world support forums have the same functions but most often users use them to express any issues encountered with the games and get assistance with them. People help and support each other and look for tips and ideas. Support forums are also a channel for gamers and game developers to meet and talk. These support forums can be seen as communities built around the games. Many players take the games very seriously and want to share their thoughts with other people who feel the same way.

“You create these communities around the game that do an incredible amount of intellectual work, and when they’re done with the work, they will leave the game and go on to another game that’s more challenging. Can you imagine if we had that kind of environment in classrooms?”

— Constance Steinkuehler Squire, associate professor in digital media and co-director of the Games+Learning+Society Center at the University of Wisconsin-Madison, and former senior policy analyst in the White House Office of Science and Technology Policy

Picture 1. Gaming communities. (The ESA 2014.)

Support forums are also a channel for gamers to unravel their feelings towards the game, game developers, other players, or, anything else for that matter. Using these web forums can be very fruitful and the response time is often very fast. Gamers are active and expect the same from developers and publishers. Any problems encountered with the games should be addressed to quickly or otherwise the support forums

fill up with negative comments. Especially hackers like to make noise when getting caught and often blame the anti-cheat software or the game developers. Since commenting is done through a pseudonym, people can deindividualize easily and discussions often take a malicious turn. An example of this is an event that took place in August of this year and is called the ‘GamerGate controversy’, which will be later discussed in more depth in Chapter 4.1.1.

2.4 Competitor Analysis

This subchapter focuses on how and why competitors are analysed. Companies look for a place in the market where customer needs are met in a way which competition cannot offer (Kotler & Armstrong 2014, 553). The purpose of competitive benchmarking is to pinpoint the best practises that could be adapted or entirely adopted to enhance your own performance (Hooley et al 2012, 107). Identifying which aspects of business to benchmark can be beneficial financially and in the terms of time management.

Kotler and Armstrong (2014, 548) say that the first steps when analysing the competitors are *identifying* the company’s competitors, *assessing* competitors’ objectives, strategies, strengths and weaknesses, reaction patterns, and, finally, *selecting* which competitors to attack or to avoid.



Figure 3. Steps in Analyzing Competitors. (Kotler & Armsrong 2014, 548.)

Hooley, Piercy and Nicoulaud claim that identifying the competitors includes analysing why certain companies are the market leaders and what do they do differently compared to others. Benchmarking the smaller competitors is equally important. The smaller companies can have specific strengths in a specific are of their operations, such as customer service or after sales marketing. (Hooley et al 2012, 107.) For a company

to create an effective marketing plan its must observe the competition on regular basis in order to find possible competitive advantages or disadvantages. Comparing the products and prices, as well as marketing strategies and channels, is vital to keep up with the competition. (Kotler & Armsrong 2014, 548.)

It is not easy to identify competition. Kodak is a film and digital photography company founded in 1888. Kodak saw other camera film makers as its major competitors but the real competition turned out to be camera makers who used no film at all. Kodak fell behind in technology and filed for bankruptcy. (Kotler & Armstrong 2014, 548.) This is what many companies do – define its competitors to be other companies offering similar products or services and often at similar prices and to the same customer base. In reality companies face a much more extensive range of competitors since a company could define any company with similar products as competition. (Kotler & Armstrong 2014, 549.) For example Porsche could define all car manufacturers as competition instead of focusing on exclusive and luxurious vehicles such as Ferrari or Rolls Royce. It is also a possibility that companies do not follow the development of technologies or do not realize how they can affect their business. This is where the example of Kodak steps in again – they had not realized what an effect would digital cameras have over the traditional film cameras and therefore were not prepared. Keeping an eye out for underlying competitors is fundamental.

Competitors can also be identified from the *industry* point of view. They can identify themselves as the gaming industry, oil industry or the entertainment industry. The different competitive patterns and industry regulations must be understood and incorporated within the company to become an effective player in the field. Identifying competitors from the *market* point of view signals that same customer groups are approached and their needs are tried to satisfy. (Adapted from Kotler & Armstrong 2014, 549.) From the industry point of view BMW might see Mercedes-Benz as a competitor but from the market point of view all modes of transportation can be of competition. Will customers buy a car or use the public transportation?

Kotler and Armstrong (2014) say that there are four points to consider when assessing the competitors. Determining the competitors' objectives, identifying their strategies, assessing their strengths and weaknesses, and, estimating the competitions reactions. They also claim that a company must provide greater customer value and satisfaction than the competition does, thus, marketers must adapt to the needs of the customer.

After realizing who the competitors are, the next step is to decide which competitors to attack and avoid. *Should you attack the strong or the weak competition?* Competing against the weak takes less money and effort but also brings smaller gains. Choosing to compete against the stronger competition will be more time consuming and financially challenging but the results can be of a bigger scale. Sometimes avoiding the strong competition is not possible but luckily they also have weaknesses. Finding these said weaknesses and succeeding over them could be very fruitful. *Should you compete against the close or the distant competitors?* Competing with the rivals who resemble your business the most is what many companies do. For example Stockmann competes more with Sokos or Anttila than Hong Kong or Tokmanni. However, destroying the close competition is not a smart move. This can force small companies to sell themselves to bigger companies and therefore the competition will get stronger and bigger. (Adapted from Kotler & Armstrong 2014, 553.)

2.5 SWOT –analysis

According to Kotler and Armstrong (2014, 77-78), SWOT is a tool used to analyse your business. It helps you to analyse the **Strengths, Weaknesses, Opportunities** and **Threats** that your company might face in the market. SWOT is an acronym for the words bolded in the previous sentence. The first two words are internal issues, and the two latter ones are used for external analysis. Internal issues can be changed with time and effort but external issues are happening in the market and you cannot affect them. That is why this tool is extremely useful for new companies since it helps the company to realize where they stand and what they need to improve. It shows the risks in the business and makes it easier to create an exit strategy as well.

It might be useful to ask different people from the company to participate in the creation of the SWOT analysis. Even customers can have interesting insights and provide information from other perspectives. In addition, this will help the company to understand how customers perceive the company and can take actions accordingly.

Creating a SWOT analysis can be a real eye-opener. If done properly, it can teach you many things. Understanding the opportunities that lie in good networks and personal skills can already be a huge step in creating a better foundation for your business. Understanding the strengths and weaknesses of the company will bring you closer to your goals and benefit the company in the long run.

A SWOT analysis can also be done from the competition – it will not be as easy but can bring interesting observations to the table. Understanding what the strengths and weaknesses of the competition are can be an opportunity for your company to develop.

3 Methods

This chapter explains the data collection and research methods used to conduct this thesis. The Research Question and Investigative Questions can be revised in Chapter 1.2.

3.1 Research Design

The connection between the four Investigative Questions are best shown in this figure 4 below. Although IQ's 1 and 2 both concentrate on the competition, their research methods are slightly different. Both use desktop study but from a different perspective – just like the IQ 3. IQ 4 can only be analysed after the three IQ's have been answered.

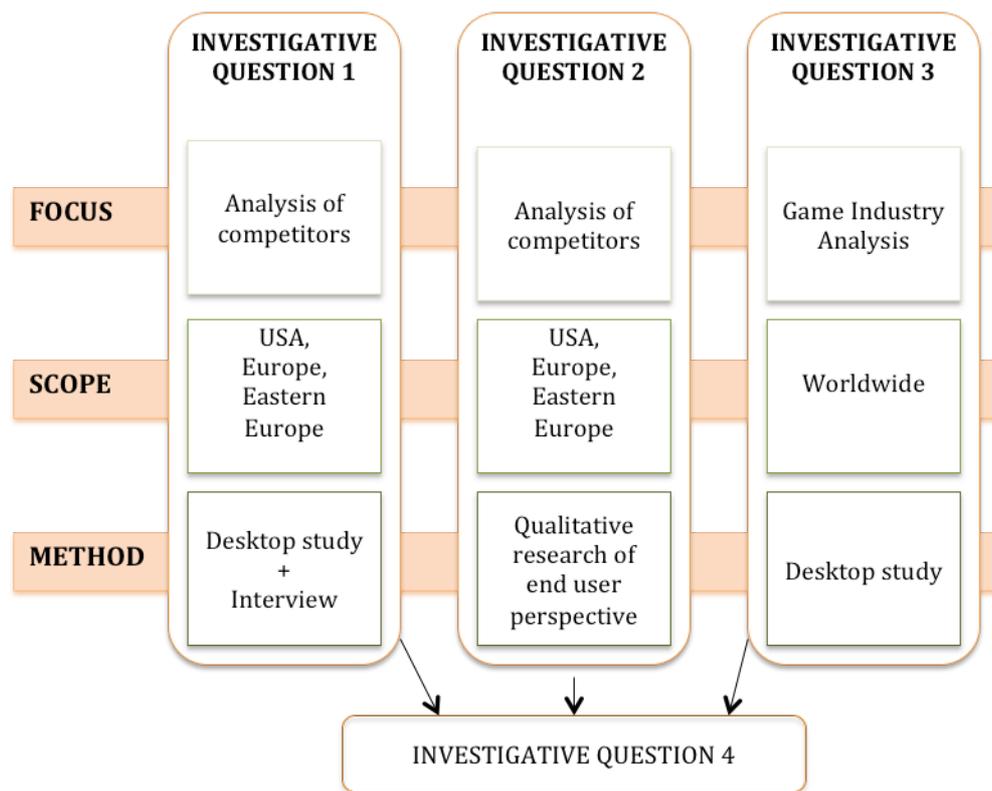


Figure 4. Research design

3.2 Research and Data Collection Methods

Each Investigative Question and their research methods are explained in more detail in this Chapter.

Investigative Question 1

A desktop study and an interview were conducted to answer the first IQ. The commissioning company was interviewed to get a better understanding on who they see as competitors and why. A desktop study was used to see if any other competitors exist and whether they should be taken into consideration in this research. Multiple online sources were utilized, including company websites, Facebook groups and support forums. The commissioning company was interviewed to see who they see as competition to have a base for the research.

Investigative Question 2

Also the second IQ was answered through a desktop study but also a qualitative research from the end-user perspective gave insight on the competitors' position. Support forums and Facebook pages were analysed and the results helped to create an idea of how the competition positions in the market.

Investigative Question 3

A desktop study was the main data collection method for this IQ. A small phone interview was also conducted with a manager level employee of SuperCell.

Investigative Question 4

As seen in the figure X, to answer the final IQ, the results from IQ's 1-3 were analysed.

4 Results

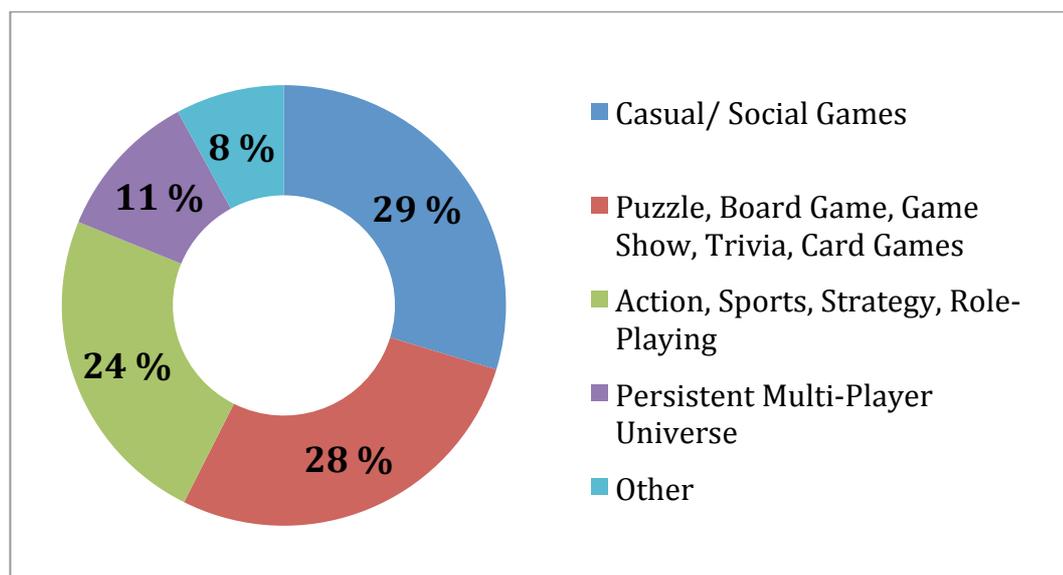
Now the results gathered through this research will be discussed. The Investigative Question 1 will be answered in chapter 4.1. Investigative Questions 2 and 3 will be answered in Chapter 4.2 and Chapters 4.3 and 4.4 will answer the Investigative Question 4. The Overlay Matrix can be revised from Chapter 1.2.

The statistics used to analyse the US market were written in 2014 but unfortunately only 2012 statistics were found for the European market. That means that these figures are not completely comparable but they give an overall view on how the markets differ. As for the Eastern European figures, SuperData has conducted a research in 2014 and therefore more recent documentation exists and the figures are directly comparable to the US market.

4.1 The Gaming Industry in Numbers

According to the Entertainment Software Association (referred to as ESA), 59 % of Americans play video games and the average household in the US owns at least one console, PC or smartphone dedicated to gaming. The following pie chart shows what kind of online games are played most often.

Table 4. Types of Online Games played most often in the USA. (The ESA, 2014)



By looking at the numbers, we can tell that social games and different trivias and puzzles are the most played games in the United States of America. Persistent Multiplayer games take 11 % of the chart and in Europe the corresponding figure for Multiplayer online games is also 11 % (ISFE, 2012).

21 % of American gamers said that the price affects their decision to purchase video or computer games (THE ESA, 2014). This might affect the way game developers see anti-cheats and proving the price-quality information is important. However, American players did spend \$21.53 Billion in 2013 on the games industry of which \$15.39B on the content, \$4.26B on hardware and \$1.88B on accessories (The ESA 2014).

Table 5. Devices used to play in Europe. (ISFE 2012.)

Console	25,125 %
Portable games device	12,375 %
Computer	38,625 %
Mobile device	26,4375 %

SuperData was founded in 2009 and “is the leading provider of market intelligence on free-to-play and digital games. By collecting behavioral data directly from publishers and developers, SuperData identifies key trends, establishes revenue estimates, and analyzes market changes for popular online games, including MMOs, mobile, and social games.” (Superdata 2014.) The company provides key performance indicators, which are industry relevant and gotten directly from different game developers and publishers. Results are shared monthly for a monthly fee. Customers can choose which markets to follow, is it free-to-play or mobile markets for example. By using SuperData, you get information about the end-users needs and wants, can improve their services. (SuperData 2014.)

In the United States of America, 48 % of all gamers are female. There are more female gamers aged 18 or older (36 %) than there are males aged 18 or younger (17 %) and the number of female gamers over the age 50 increased by 32 % from 2012 to 2013.

(THE ESA 2014.) In Europe the figures are very similar; 54 % male and 43 % female (ISFE 2012).

“I would say the evolution of video games has been very rapid. Because video games rely so much on technology and innovations, the possibilities of video games have been very quickly transforming before our eyes.”

— Christian Adame, assistant curator for the Phoenix Art Museum, one of 10 museums to host the Smithsonian Institution’s traveling “The Art of Video Games” exhibition, on the advancement of video games

Picture 2. (The ESA, 2014)

4.1.1 Current Trends

According to an interview in PocketGamer website, PlayRaven’s CEO Lasse Seppänen thinks that mobile gaming should be more innovative and take risks. He feels that many developers invent the bicycle over and over again when true creativity should be shown. (Osborn 2014.) A manager level employee of SuperCell thought that mobile gaming is strong and developing and especially tablets will become popular. Even a house wife can be a gamer and some workers play games on their way to work. (Interviewed 4th Nov 2014.)

IDATE is an independent research company founded in 1977 who specializes in observation, consulting and analysis of the telecom, Internet and media markets. IDATE has analyzed the video game developments and found eight key trends for 2014.

1. The arrival of new home consoles fuels dynamic growth over the period 2013-2017
2. Moderate financial performances for traditional players compared to players in mobile and online gaming
3. Reduction of blockbusters, as they are more and more expensive to produce
4. Nearly two thirds of the income of the video games market comes from the dematerialization of distribution and online payment practices
5. Transition to Free2Play (F2P)

6. Ubiquity takes hold for good
7. Video gaming and connected TV as a natural convergence
8. The tablet explosion (GameSummit 2013.)

A hot topic of the moment is **the GamerGate Controversy**. The GamerGate Controversy allegedly started when a woman, Zoe Quinn, created a video game called 'Depression Quest' and her ex-boyfriend accused Miss Quinn for having an intimate relationship with a video game journalist, which allegedly resulted in positive publicity for the game. This resulted in harassment and threats towards Miss Quinn and anyone supporting her. The targets were mainly women. Zoe Quinn was forced to leave her home after receiving death threats. The harassment was done mainly by other social media users, and, a hashtag 'Gamergate' was used (#gamergate). The harassers were accused of anti-feminism, sexism and misogyny. People using the hash tag claimed that the ethics in video game journalism was jeopardized and resulted in criticism towards game journalists discussing the issues of gender and politics. Some are looking for signs of corruption and some participate in the discussions just to harass. (Mirror 30 Oct 2014; Nyt.fi 2014.)

Women as gamers is a topic rarely discussed and the GamerGate controversy has brought up issues which people are eager to talk about – whether it is to harass the women in question or to support them. Most likely these women have become victims by chance and the real reasons for the hate talk is deeper than this.

4.1.2 Future Trends

Forecasting the future is challenging but it is at the centre of marketing strategies and competitive positioning. Companies that have difficulties in mastering forecasting are more likely to create positions that shield against yesterday's competition and appeal to yesterday's customers. (Hooley et al 2012, 157.)

Video Gaming is becoming more and more interesting. There are many new technological features that are becoming available for the end user as well. According to Adam Dawson (2014), head-mounted displays, multi-screen gaming and open source

gaming have become interesting features where the player can really immerse in the game. Open source gaming means that anyone can create a game for mobile or web through an easy process.

Cloud gaming is also becoming popular; video and file streaming create challenges for game developers but are the most interesting technological features in the future of gaming. File streaming enables the player to start playing (on PC, console or mobile device) while the remaining content keeps downloading on the background giving the players an instant access with little latency. With **video streaming**, games are directly streamed on-demand. Through a thin client, titles are stored on the company's server and streamed directly to computers. Then they can be accessed without the need of a console or a state of the art PC since most of the performance intensive operations are handled by the server. Companies that provide this type of cloud gaming include Gaikai, OnLive, CiiNow, Ubitus and Playcast Media Systems. **File streaming**, on the other hand, uses a thin client to run an actual game on a mobile device, PC or console. Using this method, a small part of the game is downloaded initially, enabling the consumer to start playing instantly while the remaining content downloads during play. Users get instant access to games with low latency, at a low bandwidth. Companies that provide this type of cloud gaming include Appoxy, Kalydo and SpawnApps. (Dawson 2014.)

Creating Modular Computers is a way to customize your computer by upgrading some modules in it, for example the hard drive or the motherboard, without harming the operations (Webopedia 2014). Razer Inc. is a company specialized in modifying computers and they sell all type of peripherals (keyboards, audio, controllers, mouse pads, etc.), clothing, gaming systems and much more. They have now created their own Consumer Electronics Show (CES) which is "a tower that houses ports for any type of modular component" which includes motherboards, hard drives, graphic cards and even BlueRay players. (Dawson 2014.) This would take the PC customization to the next level and make the upgrading process easier for the end consumer. When it comes to anti-cheats, this is still not a hot topic since anti-cheats are not going to use this technology any time soon. Even if it did, it would not be feasible for the hackers since

they would have to build their own chipsets and get to know the machines before being able to surpass the anti-cheat. In the console side, hackers are modifying the chipsets already. The Digital Rights Management (DRM) protection that, for example, consoles have to prevent the end users from playing pirated games on the consoles. Also the music industry uses DRM to prevent customers from saving and sending forward of the acquired material. Hackers have built chipsets that bypass this protection and are therefore able to play pirated games. The more transparent the manufacturing of computers is, the easier it is for hackers to get involved. (Sullivan 2006.)

Steam is a platform for entertainment. You can play games, share and create content, keep in touch with others, and much more. At the moment Steam is developing an operating platform of their own, SteamOS. It is a platform, which works on Linux but has improvements so that the games and bigger screens could adapt to it better. It has been created especially to the computer in your living room so you can move your friends, games and all other favorite functions of Steam to a bigger screen and, thus, enjoy the best games and other content created by other users. SteamOS plans to be the most innovative operating platform by letting the developers enhance the machines in your home by staying actively in contact with the players. Before a player gets access to the creation process, he or she is given tools to do so. SteamOS plans to keep improving and encouraging users to create and develop. SteamOS works by connecting the computers in your home to your computer, allowing the player to use a television screen for gaming. All Windows and Mac operated games can be used in SteamOS. This way, players can share games with family members and friends easier than ever before. SteamOS is said to be free forever. (Steam 2014.) The launch date for SteamOS is yet to be published.

According to SuperData, pay-to-play massively multiplayer games (MMO) show a slower decline in the Eastern Europe compared to the other areas and especially Russia and Poland keep the numbers positive. Russia currently occupies half of the Eastern Europe's digital markets and Poland 20 %. SuperData predicts the pay-to-play market to decline by 7 % by next year. Free-to-play and mobile games will drive the pay-to-play MMO market down from \$2.6B in 2014 to \$2.1B in 2017 and Europe accounts

for over a quarter of the worldwide revenues. Asia will continue to lead the MMO market but Europe is a strong second. Smaller Eastern European markets are predicted to grow faster because the smaller market is a more logical entry point for publishers. Hungary is the fastest growing market for free-to-play games and the overall market for MMO games is expected to grow from \$794M in 2014 to \$908 by 2017. (Super-Data 2014.)

A manager level employee of SuperCell claimed that PC gaming is fading while mobile games continue to thrive. The interviewee said that there are possibilities for bigger things for smaller amount of money while PC gaming requires bigger finances to become a quality game and gain popularity. This is why mobile games have high numbers of competitors. On the other hand, mobiles and the mobile industry are evolving and soon the games will not be so simple. Console games are more unpredictable and the competition is hard while rewards are small. The interviewee thought that Steam OS could be something big and definitely should be monitored closely. Those co-operators and partners who are involved with Steam OS from the beginning are the ones who will succeed. When it comes to anti-cheats, the interviewee thought that *Ghosting* (=the act of a dead player monitoring a live enemy to reveal their moves to other, live, team members) will become more used and BOTs (short for robot, meaning that the computer plays the game by itself) will be used more to gain an unfair advantage. Steam OS will be harder to hack since it works on Linux which has a strong security. (Interviewed 4th Nov 2014.)

Many sources predict the gaming industry to continue evolving and maintaining the popularity. Even though the use of smartphones and wireless devices has increased by 22 % and 37 %, over 2012 in the USA (The ESA, 2014), Gartner, the leading information technology research and advisory company, believes that PC gaming revenues will mount up to 21,601 Million dollars by 2015 (Gartner 2013). Free-to-play games and pay-to-play games are still popular, regardless of the rise of mobile gaming. Video gaming industry is developing with new technologies and the end-users seem to like it.

Finally, the president and CEO of Entertainment Software Association Michael Gallagher's quote concerning the computer and video game industry can be read below.

“Our industry has a remarkable upward trajectory. Computer and video games are a form of entertainment enjoyed by a diverse, worldwide consumer base that demonstrates immense energy and enthusiasm for games. With an exciting new generation of hardware, outstanding software, and unmatched creativity, technology, and content, our industry will continue to thrive in the years ahead.” – Michael D. Gallagher, president and CEO, Entertainment Software Association (The ESA 2014.)

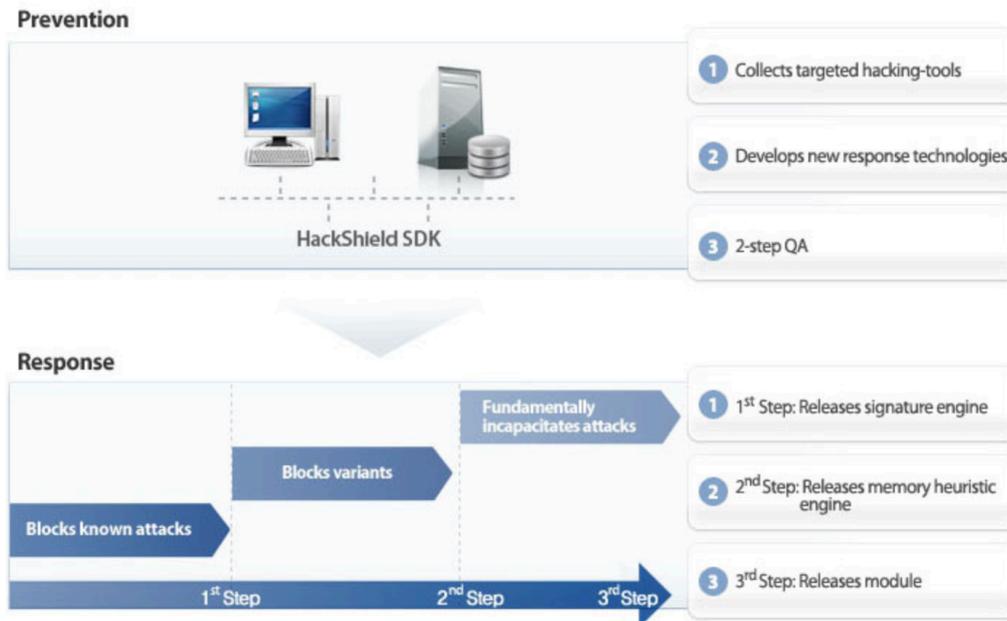
4.2 Key competitors and success factors

In order for me to understand where EasyAntiCheat stands in the market, a research regarding the competitors needed to be conducted. The difficulty was to find information about the companies since none will reveal anything regarding how exactly they take care of the anti-cheat issues and what is their pricing. Finding information on the differentiating factors is the most difficult part – the service developers want to keep their secrets from the hackers' eyes. The commissioning company shared their vision of their competitors and the research was started based on that information.

HackShield

HackShield is being used in over 200 online games all around the world. They have a very clear website where one can find information about their implementation, infrastructure and system environment, to name a few. Their website looks like a typical IT company's page. Even Microsoft came to mind. This can be appealing for potential customers since this is what one could expect an anti-cheat webpage to look like. The problem is that everything is written in Korean and only some parts have been translated into English. Using search engines to find more detailed information did not bring any more information either.

HackShield does list their core features. The following picture is taken from their own website and demonstrates relatively clearly how their core functions work. No further detail from these functions are explained, only this picture was available.



Picture 4. Core Features. (HackShield.)

The company seems to be quite big and even offers 24/7 customer support, world wide. When doing further research on the company, there are not that many discussions arising from Google – perhaps results in Korean would have brought more insight. With a search word “HackShield problem”, the latest topics are from September. Either there is nothing negative to comment or the company really has done great job with directing all feedback through other channels.

Valve Anti Cheat

Valve Anti-Cheat (VAC) is an American software developed by Valve Software. Valve is the creator of Steam which is a platform for thousands of games with over 100 active accounts all around the world. In January of 2014 Valve announced to have reached over 75 Million active accounts which means that during this year they have gotten over 25 Million new accounts. (ValveTime 2014; Makuch 2014).

Currently VAC supports 356 games on Steam (Steam 2014). The reason for such a big number lies in the launch process; you only need to tick a box when launching your server in order for VAC to be present (Steam 2013). The picture below demonstrates this process.

Steam Dedicated Servers

The process for enabling VAC security is the same for **Steam Half-Life Dedicated Servers** and **Steam Source Dedicated Servers**.

1. Launch your Steam Dedicated Server from the **Steam Tools** tab.
2. Make sure the **Secure (Valve Anti-Cheat)** checkbox is checked.
3. Start the server.

Picture 3. How to get your server to be VAC secure. (Steam 2013)

For VAC to work, game developers need to report the detected cheats to VAC development team. Once a cheat is detected and blocked from the game, it cannot be used in that said game anymore. Valve Anti-Cheat will automatically ban anyone trying to cheat. The problem with VAC is that the bans will only affect the game they were detected in, and will not be applied to the rest of the games on Steam automatically. For example if a player is banned from Game A, it will not be applied to Game B since the banning only applies to that said game. The same goes with cheating. The cheats will only be detected in the game they were played in and will not be applied to the rest of the games on Steam (Valve Corporation 2013). In theory you can use that same cheat on all other 300 games. There are some exceptions to this rule but in general this means that in order for VAC to work well in the game you play, you need to be proactive yourself and report hacks and cheaters (Adapted from Valve Corporation 2013).

VAC uses their own cheat signatures to detect any cheats. Any third-party modifications to the game (including dynamic link libraries and core executable files), which will be used to gain an unfair advantage, will be categorized as a cheat and will result in a VAC ban. (Steam 2013).

The biggest reason why VAC is considered as a competitor of EAC is that they support a big variety of games. Many of the game developers might think that they do not need another anti-cheat software and that their current anti-cheat is sufficient. It is difficult to convince them to switch to another anti-cheat – especially since they would have to pay for it.

PunkBuster

PunkBuster (hereby referred to as PB) is created by EvenBalance in year 2000, in Austin, Texas. PunkBuster website tells very quickly what they think of cheaters: “We daily battle the selfish little punks who want to ruin your favorite online games and the hack-writers who supply them with cheats (PunkBuster, 2014)”. The main aspect on PunkBuster is that they give “time-outs” to players – anywhere from 15 minutes to complete banning of the player. They have an extremely unfinished looking website which is very unprofessional and too simple for an company in this industry.

According to PunkBuster, they do not charge the end customer directly, but instead believe that the anticheat should be integrated in the cost of the online game itself. The website also claims that the use of PunkBuster is optional but I have found no proof of that – quite the contrary. Apparently you do need to use the anticheat when launching the game in order to be able to play it. (GameFAQs, 2011). 17 games are supported by PB at the moment.

These two above mentioned companies (PunkBuster and VAC) work in a way similar to an antivirus system. They search your computer in real-time for files they already know – they do not have access to the other files on your computer and can only detect the files that have been recognized as cheats (Even Balance, 2014). This is a topic that caused concern in the forums among players. The players worry if their personal information will be documented and screenshotted. Even an article by Zoran Cunningham was written to an online game website, Gamasutra, about the absence of good anti-cheat solutions and how PB works in an unethical way.

The PunkBuster website lists their major features. The list is quite long and can be found entirely in the Attachments as Attachment 1. The three bullet points that I want to showcase in more detail are the following:

- Real-time scanning of memory by PB Client on players' computers searching for known hacks/cheats
- PB Admins can request actual screenshot samples from specific players and/or can configure the PB Server to randomly grab screenshot samples from players during gameplay

- Search functions are provided for PB Admins who wish to search player's keybindings and scripts for anything that may be known to exploit the game (PunkBuster 2014.)

Keybindings are used to finish tasks faster by using your keyboard. In gameplay you normally would use your left hand for the keybindings, while the right hand uses the mouse. You can keybind nearly all functions you will need in the game, for example pressing 'W' would make your character go forward, 'A' to the left, 'S' backwards and 'D' to the right. (PvP Wiki 2009.) This way you can save precious time in the game and have an advantage over other players.

To search players keybindings, grab screenshots and to scan the players computer in real-time is not acceptable. EasyAntiCheat does not do this and does not see any reason to start doing so in the future either. Each player's privacy is protected and no information is taken by EAC. The question is; why does PunkBuster want to collect all this information or is it purely for the need to keep their anti-cheat up to date? The End Used License Agreement (hereby referred as EULA) of PunkBuster is very interesting as well. The following three paragraphs are direct quotations from the PB's EULA.

“Licensee further acknowledges and accepts that PunkBuster software may be considered invasive. Licensee understands that PunkBuster software inspects and reports information about the computer on which it is installed to other connected computers and Licensee agrees to allow PunkBuster software to inspect and report such information about the computer on which Licensee installs PunkBuster software.

Licensee understands and agrees that the information that may be inspected and reported by PunkBuster software includes, but is not limited to, devices and any files residing on the hard-drive and in the memory of the computer on which PunkBuster software is installed. Further, Licensee consents to allow PunkBuster software to transfer actual screenshots taken of Licensee's computer during the operation of PunkBuster software for possible publication.

Licensee agrees that any harm or lack of privacy resulting from the installation and use of PunkBuster software is not as valuable to Licensee as the potential ability to play interactive online games with the benefits afforded by using PunkBuster software.”

(PunkBuster EULA 2014)

Reading the PunkBuster support forums, gamers seemed to be divided into two groups based on the information above; other side disagrees completely with the EULA and the other side thinks that all this is irrelevant for the game experience. By accepting this EULA the player will also agree that any harm caused to the computer or hardware in question, due to the installation and use of PunkBuster, is not as valuable to you as the fact that you can play cheat-free (PunkBuster EULA 2014). There has also been rumours that PB was hacked and innocent players were banned to show their hatred towards PunkBuster (Totilo 2012; de Matos 2012).

Fairfight

FairFight is a customizable anticheat system that operates in real-time. They mention on their website that they do not examine any players devices which is a logical worry for players as seen with PunkBuster. FairFight actually uses PunkBuster and VAC as examples on their webpage and uses them for comparison. This is an interesting approach which will be later discussed under this topic.

FairFight uses algorithmic analysis of player statistics and server-side cheat detection (GameBlocks, 2014) and seems to be quite effective, or, at least their Facebook has over 5,300 likes and the page is filled with success stories of banned or suspended players. When examining their Facebook page in more detail, I noticed that they only post screen shots of banned or suspended players' comments on forums. These pictures have many comments appraising FairFight and bashing the cheaters. This can be seen as a challenge to cheaters and provoke them to try new hacks and FairFight could encounter big, revengeful server attacks. Being cocky can also be a negative factor for potential customers.

“FairFight has detailed player information, leader boards and statistical summaries that PunkBuster and VAC do not provide. There is email with full reporting, comprehensive chat monitoring, heat maps, and more.” (GameBlocks 2014.) Would be interesting to get access to the email and see what information FairFight offers their customers since the idea of providing this type of information with the client is fascinating. Cus-

tomers get a better idea on what this anti-cheat is doing for them and what the players are up to. On FairFight's webpage, under *Frequently Asked Questions*, they tell can PB and VAC can be run alongside FairFight, but is not necessary.

FairFight does not have a clear website, nor is it easy to find information on them. They do have a *Frequently Asked Questions* section on their webpage which turned out to be the most useful part on their webpage. They do have a poll on their webpage asking players to vote in which games they would like to see FairFight next. I think this is a clever way to get the attention of potential customers. Currently they only have three customers.

UAC Universal Anti Cheat

UAC was an anti-cheat run by two men on their free time for no compensation (UAC, 2014). The service was free of charge and based on screenshots taken of the games. The company had problems with the database and server and the developers had trouble keeping it all together. (Dexus, 2012.) They started the company in 2005 and by the time the company was discontinued, they were supporting 44 games. They decided to discontinue the anti cheat in 2014. (UAC, 2014.)

4.3 SWOT analysis for EAC

I wanted to analyse the company a bit more. Using SWOT as the tool was an easy decision; SWOT is extremely easy and clear way to understand where the company is. This tool will also be very helpful when determining EAC's position. The SWOT analysis was conducted based on market trends and competitor analysis.

Table 6. SWOT analysis.

STRENGTHS	WEAKNESSES
No hardware spying	Limited resources
History in hacking	Price?
Plug and play –demo	Brand power
Price?	A small and new company
	Proving cheating
OPPORTUNITIES	THREATS
A poll on the website	Quite a bit of competition
Exceeding expectations	Pricing?
Only few strong competitors	Free anti-cheats
PC gaming keeps rising	Portable gaming is getting popular
Pricing	

4.4 Competitive Advantage for EAC

In the field of anti-cheats, EAC is a strong player. Competition is weak and only a few companies can truly be seen as competitors. Keeping an eye out for the smaller developers is important but at the moment becoming the go-to solution for big publishers is the main goal.

Since EasyAntiCheat operates globally, the potential customers are also global. This brings an endless amount of possibilities for propable customers. There is also some room for ‘hit and miss’, and, practise does make perfect. Learning how to approach bigger customers can be done by learning about smaller ones first. Communication is extremely important in positioning and learning to communicate with customers efficiently can be an asset which the competition does not have. The tone of communication and the response time with the end-user can be a differentiation factor from competitors. PunkBuster hates cheaters and HackShield is extremely official. EAC is very approachable and relaxed while being professional and fun. A tough combination which is working well for EAC.

Many of the competitors of EAC offer quick solutions. *Tick a box and receive anti-cheat protection.* Some of the competition has died off by themselves and the remaining competition is not heavily armed. Some of the competitors use very basic tricks to keep cheaters in order but EAC seems to be the most effective one. HackShield seems to use the same technology as EAC but their tricks are older – HackShield was popular in 2008 through 2012 but is not actively developed anymore unlike EAC, which continues to evolve and learn new techniques to become the best anti-cheat in the market (Rautava 2014). Some other anti-cheats have tried to succeed in the market and failed, UAC is an example of this. Developing and learning new techniques is vital for success. Researching is one of the day-to-day activities for EAC.

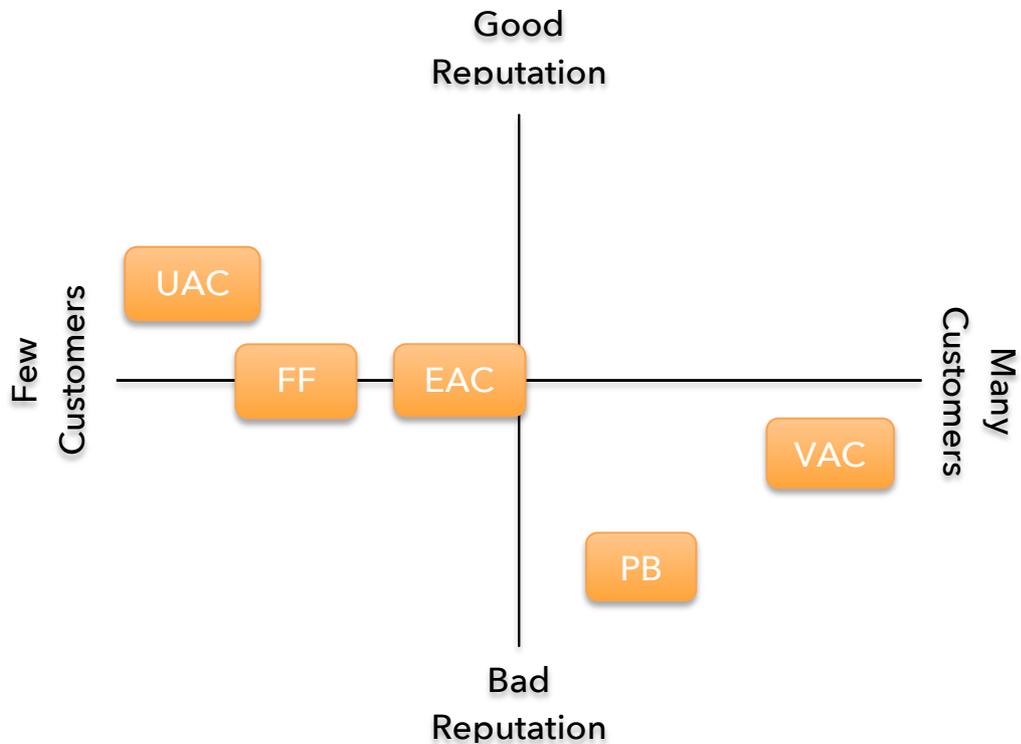
What makes EAC different and better than the competition is the fact that no private hacks can be loaded into EAC. The only way to prove this is by downloading cheats from CheatEngine and try to apply them to EAC and to some other game. Other games might ban you later but to begin with the cheat can be uploaded.

A big challenge is to prove the prospects that cheating and hacking happens and Getting the customers a ‘plug and play’ –demo will help them understand the product more and create trust for it. This type of ‘demo’ is unique for anti-cheat and could be highlighted more to the prospects. The customer buying process of EAC can be seen as the Attachment 2. The fact that EAC uses fairs, launches and other game events, as a channel to meet potential customers and make new connections is smart. For a small company to fly all around the world meeting clients is not feasible and therefore combining these events with pre-set meetings is a good way to make the most of the trip. Often EAC does make plans to meet people during their stay at an event and sometimes they have flown to meet potential customers face-to-face unannounced and have even threatened to sit outside their office until a time for a meeting is set (Rautava & Allaey 2014). I do not think other anti-cheats would risk the trip and would not be as bold. The trip in question did result in a meeting.

Finally a positioning map is presented with four competitors of EAC. HackShield was left out of this map due to the lack of information that was found. The map is divided

by two axis'; one measuring the reputation of the anti-cheats in question, and one the number of clients they have. Reputation was measured through an overall image of the companies on the support forums and other media.

Table 6. Positioning Map



By looking at this map it is quite clear that the more customers a company has, the more negative feedback and speculation is involved. This shows in the support forums and other media. Learning to control this factor would be a great asset for EAC in the future.

5 Discussion / Conclusions

The final chapter of this thesis introduces the key findings and recommendations regarding the next steps and future research for the commissioning company EAC. Validity and reliability of the research is discussed and author's personal learning's are examined.

5.1 Key findings

The gaming industry is ever changing and evolving. Depending on whom you ask, people seem to have different views on the future trends and the current market situation. However, different sources claim that the PC gaming industry continues to thrive and the active gamers continue to play MMO games especially since new technologies keep gaming interesting. When it comes to anti-cheats, new technologies mean new challenges, new areas to master and possibly new customers too. This requires effort, patience and changeability to keep up with the evolving industry.

There is some competition in the anti-cheat markets and the biggest competitors for EasyAntiCheat are PunkBuster, FairFight and VAC. FairFight is still a small player in the field but could get bigger and needs to be watched. PunkBuster supports over a dozen games and VAC over three hundred. VAC has such a high number due to the launch process; any game on Steam can be supported by VAC by simply ticking a box. Having such high number of supported games means more work and less accuracy, and required players to be active too. UAC was an anti-cheat service, which has been put to bed in January of this year and therefore no longer is a competitor. UAC was run by a couple of friends for no profit and completely on their free time. EAC has taken the risk to pursue this goal and is succeeding in it already.

EAC is proactive, researching and seeking for new hacks constantly to stay ahead of the cheaters and the competition. EAC also offers a demo for potential customers to see what their game would look and feel like with EAC support. They still have many

threats and weaknesses to overcome but that is not unusual for small start-ups. I truly think that EAC is the best anti-cheat solution in the market and this message needs to be positioned in the prospects minds.

5.2 Recommendations

Pursue the role of a trustworthy and honest anti-cheat and address the fact that no hardware spying is involved. The end-user and customers would appreciate this and would take speculation and negativity away from the support forums. The ideas for further research in chapter 5.3 should be put to action.

5.3 Further Research

For future research would be useful to conduct a thorough investigation about the competitors through support forums. These forums show how often games supported by the competition have had issues, how severe problems they have and how the end-user feels about the competitors. Competitions pricing is also something that would be useful to know but difficult to find out.

A research concerning the Asian and South American markets should be executed. Cultures and markets in the set continents are very different compared to the Western ways and therefore a proper research would be useful before entering the markets. Needs for translators and such should be researched but only after the other markets have been successfully entered.

Would also be interesting to know how big of an influence word of mouth has when buying a game that is using anti-cheat services. A quantitative survey could be conducted regarding this.

5.4 Validity and reliability

Choosing to analyse only the European and North American markets was a result of the scope of this thesis. Analysing all possible markets would have made this thesis too

wide and therefore had to be narrowed down. Understanding these two markets before entering new ones was a tactical move.

One of the biggest problems I had with this thesis was the actual research. It is extremely difficult to find reliable sources since so many potential sources are articles, support forum conversations, or other material that can reflect the opinions of the author too much to make it objective. The only way to get end-users comments, are the support forums. These support forums are often for registered users only and the conversations are often aggravated. Players want to decode their feelings about problems and issues and it shows quite quickly on the forums. Any positive comments are quickly buried underneath.

When discussing the GamerGate issue, Wikipedia was used as a source. Understanding the entire scope of the movement was best described in Wikipedia and 158 sources were listed in the article. GamerGate is wildly discussed topic at the moment and reading all possible sources to get an overview is not possible – only the discussion forums contain a lot of information of which a great part is negative commenting and does not bring value to this research. Choosing to use Wikipedia was a calculated decision.

I had a phone interview with a person on managerial level working at SuperCell. The interviewee provided me with personal viewpoints of the current and future market of the gaming industry. Since SuperCell is creating games for tablets (SuperCell 2014), it is understandable that the interviewee thought PC gaming was fading and tablets and mobiles are the next big thing. This also makes the results of the interview questionable for being slightly biased.

5.5 Analysis of learning

This project has been incredibly time consuming and fun. The topic is interesting and I could have continued my research much further. The problem was to know when to stop since this is a bachelor thesis and does not need as much depth. I do feel that my research question and investigative questions were good and logical and gave a good basis for this research.

Through this process I have learned a lot about myself, research, positioning and especially the gaming industry. Understanding the scale of the research was challenging and I could have planned this process a bit better. I still have to improve my time management skills although working under pressure suits me. My research skills have improved tremendously, learning to use search engines better by using innovative search words was challenging but rewarding – sometimes I found information that my other search words could not bring me. I learned to be critical towards the sources and paid attention on the quality of my research. I tried to use as many sources as possible and verifying statements from multiple sources. This is the challenge when conducting a research where most sources are online.

During this process I have made many mistakes and one of them is not making enough interviews. I am sure they could have brought some different insights especially regarding the gaming industry trends. One interview that I made with an employee of Supercell seemed biased and therefore not as fruitful as hoped for. Learning to see what sources are reliable and what are not was educating.

I hope that all that I learned from this thesis process will be beneficial for my career. Working within the gaming industry is interesting and rewarding. Marketing is something that I feel passionate about and think that I could be good at. Positioning is something I consider to be the basics of marketing and no marketing plan will be efficient without proper positioning.

If I could do something differently, I would start earlier. There are so many topics to cover and uncover that I could have spent ages researching and writing. By writing and researching this topic, there were many other viewpoints and ideas that I wanted to take into this thesis but had to leave out due the scope of the thesis and the time limit. I am sure that more digging and investigating could have brought even more viewpoints and questions – even if they would not have been used for this thesis, they could have been useful for personal development.

5.6 Company Feedback

“Having Milla do the thesis with our company helped us gain new perspectives in marketing and customer acquisition. Milla easily integrated in the company culture, which I think also reflects in the clever details found in the thesis. Overall I would say Milla’s work was outstanding. After reviewing the cooperation and the thesis work we were impressed with how Milla so deeply understands the niche we operate in. After short deliberation we unanimously decided to hire Milla and let her take control and overall responsibility of the company marketing.”

Espoo, December 1st, 2014

Simon Allaeyns, CEO

EasyAntiCheat

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Attachments

Attachment 1. PunkBuster Major Features

- Real-time scanning of memory by PB Client on players' computers searching for known hacks/cheats
- Throttled two-tiered background auto-update system using multiple Internet Master Servers to provide end-user security ensuring that no false or corrupted updates can be installed on players' computers
- Frequent status reports (highly encrypted) are sent to the PB Server by all players and the PB Server raises a violation when necessary which causes the offending player to be removed from the game and all other players are informed of the violation
- PB Admins can also manually remove players from the game for a specified number of minutes or permanently ban if desired
- PB Servers can optionally be configured to randomly check player settings looking for known exploits of the game engine
- PB Admins can request actual screenshot samples from specific players and/or can configure the PB Server to randomly grab screenshot samples from players during gameplay
- An optional "bad name" facility is provided so that PB Admins can prevent players from using offensive player names containing unwanted profanity or racial slurs
- Search functions are provided for PB Admins who wish to search player's keybindings and scripts for anything that may be known to exploit the game
- The PunkBuster™ Player Power facility can be configured to allow players to self-administer game servers when the Server Administrator is not present entirely without the need for passwords
- PB Servers have an optional built-in mini http web server interface that allows the game server to be remotely administered via a web browser from anywhere over the Internet

(PunkBuster, 2014)

Attachment 2. Customer Buying Process

There are two ways of starting a discussion with a potential client; they contact EAC or EAC makes the first reach. Often EasyAntiCheat does some research to see which companies do not have any anti-cheat systems or could use a better one. New game launches are an excellent target. Sometimes the companies have been looking for an anti-cheat for their game and stumbled on EAC through recommendation or research of their own.

The next step is to send an e-mail that makes the target company curious and which would hopefully result in a meeting. Some of the smaller companies do not want a meeting but are happy with e-mail or Skype negotiations, bigger companies often want to meet the people behind the curtain. Travelling to other countries for a short meeting is very time consuming but often worth the effort. Meeting potential customer in game events, launch parties and the like is a good way to make multiple new connections at once.

After getting in contact with the potential customers, they often want access to the developer portal to get a better understanding of the technology behind the service. As Simon Allaeys, the CEO of EAC, said; “It is the technology that gives the good impression.” Getting the customers a ‘plug and play’ –demo will help them understand the product more and create trust for it. This type of ‘demo’ is unique for an anti-cheat.

Most likely the potential customers will do some research of their own, such as reading the support forums and seeing if there are any network issues and if the games have worked well with the anti-cheat program. Potential customers might also check the EAC supported games to see if there are any similar games to see how they work with EAC. After the buyer comes to a conclusion of the decision to purchase, the pricing is discussed and – hopefully - contracts are signed. Sometimes small discounts can be in order for the deal to close.

The customer buying process for EasyAntiCheat seems very simple but there are many questions that arise after the potential clients spend some time reading forums and getting to know the product a bit more. The complication in this process is that gamers, who want to cheat but are cut back by EAC, are very brutal on game forums and these are the things that first come up. The challenge is to get the positive comments to pop out first. It is also very hard to prove the actual cheating in the games.