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THE SUCCESS FACTORS OF THE FINNISH MOBILE GAME INDUSTRY: A STRATEGIC OVERVIEW

– Cases Rovio & Supercell

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THE SUCCESS FACTORS OF THE FINNISH MOBILE GAME INDUSTRY: A STRATEGIC OVERVIEW – CASES ROVIO & SUPERCELL

The video game industry has been one of the most rapidly growing industries during the past ten years. During this time the number of Finnish companies operating in this field has risen from 20 companies to approximately 150 firms (Tekes, 2013). The Finnish game industry has been able to develop several internationally successful game titles. According to a study made by Neogames and Suomen Pelinkehittäjät Ry., the game industry is the most significant cultural export product of Finland (Neogames & Suomen Pelinkehittäjät Ry. 2010).

Especially the Finnish mobile game developing companies made an outstanding contribution to the Finnish game industry's hypergrowth during the last few years. The long term compound annual growth rate of the Finnish game industry was 25,70% between the years 2004 and 2012. (Tekes, 2013) The impact of digital distribution is discussed in the study, for it has given the opportunity for every Finnish mobile game company to compete on a global level.

The thesis' focus is on the competitive environment of the mobile game industry and how Finnish game development companies are adapting to different competitive forces. For this reason the literature review has its emphasis on Michael E. Porter's publications on strategy and competition.

A brief strengths, weaknesses, opportunities and threats –analysis based on secondary data indicates that the main strength of the Finnish mobile game development industry lies on the excellent technological know-how of the Finnish game development workforce, while the main weaknesses of the industry are the highly competitive business environment and lack of educated workforce. The competitive environment is analysed by applying Porter's Five Forces framework to the Finnish mobile game industry. The results indicate towards the extremely high threat of entrants, the high bargaining power of buyers and the eradicating bargaining power of the suppliers.

KEYWORDS:

Competitive environment, Strategic management, Games industry, Mobile game development

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SUOMEN MOBIILIPELIALAN MENESTYSTEKIJÄT: STRATEGINEN YLEISKATSAUS – TAPAUSTUTKIMUKSET ROVIO & SUPERCELL

Videopeliteollisuus on kuulunut nopeimmiten kasvavien alojen joukkoon viimeisten kymmenen vuoden sisällä. Kyseisenä aikana suomalaisten peliyritysten lukumäärä on kasvanut kahdestakymmenestä noin sataanviiteenkymmeneen (Tekes, 2013). Suomen peliteollisuus on kyennyt kehittämään useita kansainvälisesti menestyneitä nimikkeitä. Neogamesin ja Suomen Pelinkehittäjät Ry.:n tekemän tutkimuksen mukaan peliteollisuus on merkityksekkäin kulttuurialan vientituote Suomessa (Neogames & Suomen pelinkehittäjät Ry.,2010).

Etenkin mobiilipelienkehitykseen keskittyvillä yrityksillä oli huomattava vaikutus alan äärimmäisen nopealle kasvulle viime vuosina. Suomen peliteollisuuden kertyvä vuotuinen kasvuprosentti oli 25,70% vuosien 2004 ja 2012 välillä. (Tekes, 2013) Digitaalisen tiedonjakelun vaikutusta käsitellään tutkimuksessa, sillä se on antanut jokaiselle suomalaiselle mobiilipeliyritykselle mahdollisuun kilpailla kansainvälisellä tasolla.

Opinnäytetyön pääpaino on mobiilipelialan kilpailuympäristön tutkimisessa, sekä pelinkehittäjien mukautumisessa erilaisiin kilpailuvoimiin. Tästä syystä kirjallisuuskatsauksen pääpaino on Michael E. Porterin julkaisuissa strategiasta ja kilpailusta.

Kirjallisiin lähteisiin perustuva lyhyt SWOT-analyysi osoittaa että Suomen pelialan suuriimmat voimavarat ovat sen tietotaitoiset työntekijät. Äärimmäisen kilpailullinen teollisuudenala sekä koulutetun työvoiman puute ovat Suomalaisen peliteollisuuden suurimmat heikkoudet. Kilpailuympäristöä analysoidaan Porterin viiden kilpailuvoiman avulla. Tulokset kertovat äärimmäisen kovasta kilpailusta alalla, uusien tulokkaiden uhasta, ostajien vahvasta vaikutusvallasta, sekä tavarantoimittajien merkityksettömyyden korostumisesta.

ASIASANAT:

Kilpailuympäristö, Strateginen johtaminen, Peliteollisuus, Mobiilipeliala

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LIST OF ABBREVIATIONS (OR) SYMBOLS

IP	Intellectual Property
CAGR	Compound Annual Growth Rate
CEO	Chief Executive Officer
COO	Chief Operations Officer
ESA	The Entertainment Software Association

1 INTRODUCTION

1.1 Preview

The video game industry has been one of the most rapidly growing industries during the past ten years. During these last 10 years the number of Finnish companies operating in this field has risen from a puny 20 companies to approximately 150 firms. (Tekes, 2013) The Finnish game industry has been able to develop several internationally successful game titles. Success stories, such as the record breaking Angry Birds by Rovio, financially successful Clash of Clans by Supercell, Remedy's Max Payne series, Habbo Hotel by Sulake, and several mobile games developed by Digital Chocolate are only few examples of Finnish game industry's know-how. In fact, according to a study made by Neogames and Suomen Pelinkehittäjät Ry., the games industry is the most significant cultural export product of Finland. (Neogames & Suomen Pelinkehittäjät Ry. 2010)

The technological know-how in the Finnish game industry is among the best in the world. The importance of this expertise is emphasized especially as games are developed for multiple platforms such as game consoles, different mobile operating systems or PCs. The price-quality ratio of developing games is quite good in Finland. Although Finland does not have cheap labor, the quality of the work done there is excellent. The Finnish game development is very hard to outsource to lower cost countries because of the high level of know-how and technology required. (Neogames & Suomen Pelinkehittäjät Ry. 2010)

The game industry is also supported by a strong gaming culture in Finland, where gaming is viewed socially acceptable. A good infrastructure in terms of economy, society, technology and telecommunications allows game development companies to have extensive operations in Finland. (Neogames 2011) The increasing use of mobile devices and smartphones has made gaming available also on the move. This has created a huge market for games

developed for these mobile devices. The Finnish game development companies are at the frontier of this mobile revolution.

1.2 Research Problem and Objectives

The aim of my study is to answer the following research problem: What are the driving factors behind the success of Finnish mobile game development companies?

The objectives of the study are composed of the following:

1. To have a clear understanding on the strategic management aspects which have to be considered in the game development industry.
2. Making an overview on the Finnish mobile game development environment by applying Michael E. Porter's "five competitive forces"-framework on it.
3. Providing example case studies of the most prominent Finnish mobile game developers Rovio and Supercell.

1.3 The Scope of the Study

I chose to study the Finnish mobile game development industry instead of the Finnish game industry as a whole. The value chain and business model differs quite a lot for example in mobile and console games. One of the main objectives of this study is to point out how the digital distribution model creates possibilities for Finnish game developing companies aiming to succeed. The end-user is nowadays closer to the developer itself in the value chain, much because of the emergence of digital distribution. The differences in business models and publishing between different platforms will be addressed in the chapter 3.1.

The domestic market for mobile games in Finland is rather small, and every Finnish mobile game developer aims their games for the global market. The reason for most game development companies to use Finland as the base of their operations is the availability of different resources. The game development

industry is supported by different subsidies from the Finnish government, and private funding is also capitalized. The availability of skilled labor for development is also of importance. The difference in annual growth was the reason why I chose Finnish game industry over the global one. The compound annual growth rate (CAGR) for the Finnish game industry counted from 2004 to 2010 was 17,45% which is significantly more than the CAGR of global game market. (Neogames 2011) The long term CAGR between 2004 and 2012 has been even higher. A total of 25,70%. (Tekes, 2013: p. 5)

1.4 Definitions

This chapter contains definitions of some concepts that are used often in this thesis.

Strategy: a company's game plan for achieving its goals.

Mobile Game: These are games that are designed for mobile devices such as mobile phone, smartphone or tablet. At this moment the most typical platforms for mobile games are iPhone, iPad and other tablets, Android devices and Windows phones. (Niipola 2012: p.133)

Game industry: Companies that develop games for any virtual platform form the game industry. The Finnish game industry consists of game development companies located in Finland.

Mobile Game industry: A subcategory within the video game industry. Companies that participate in the development of games designed purely for mobile platforms belong to the mobile game industry.

Freemium as a business model: It is a business model in which the consumer can download the game itself for free but has to pay for the additional content, which is called the premium. Freemium = free + premium. (Niipola 2012: p.135)

Startup company: According to a definition by Steve Blank startup companies are considerably young companies that are searching for a business model that is scalable and repeatable (Blank, 2010). As the business model is still on a

development phase the market may also change. While the company develops it may grow rapidly. A startup scene refers to a certain culture that develops around many companies in one location. One example is the Silicon Valley in California (Niipola 2012: p.10).

(Gaming) platform: A basic concept of the game industry, which refers to a specific device or operating system. Examples of gaming platforms are PC, consoles, such as Sony Playstation 3 and Xbox 360, Apple's iOS operating system or Google's Android operating system. Facebook is also considered a gaming platform, even though it can be run on PC or on smartphones. (Niipola, 2012: p.64)

Casual Gaming: According to Casual Games Association casual games are meant for the general public, they are easy to learn and play. They are easily accessible and can be played on all platforms. (Casual Games Association, 2013)

Demoscene: A subculture phenomenon which took place during late 80's and early 90's. Started from a small group that began to compete with the development of demos and intros for games. The level of programming, art design and music of the games was evaluated. These development events were called "demo partys". Demo events are still being held, with "Assembly" being the most famous. (Niipola, 2012)

Digital Distribution: Also know as online distribution. A distribution method were the content, often being software, is delivered through the internet to the customer's device. (Niipola, 2012)

1.5 Structure of the study

This study is formed from six main chapters: Introduction, Overview of the game industry, Literature review, Case Studies, Evaluation and Conclusion & Discussion. The first chapter introduces the thesis in general. This is followed by an overview of the game industry, where the Finnish game development environment and the mobile game industry is observed more closely. Important

historical events of the Finnish mobile game industry are addressed in the history chapter

The third chapter being the literature review includes closer inspection of the different business models that dominate the game industry in Finland. All information on these subjects is gathered from web articles, magazine articles, Industry related reports and books. The part on competition is done on basis of Michael E. Porter's work.

In the fourth part, case studies of the two most prominent Finnish mobile game companies, Rovio and Supercell, are covered. In these case studies some concrete factors are pointed out, that have contributed to their success.

The fifth chapter includes a Strenghts, Weaknesses, Opportunities and Threats analysis of the Finnish mobile game industry. Also the competitive environment of the industry is evaluated.

In the sixth and final chapter a conclusion was made on what are the success factors driving the Finnish mobile game industry. In the discussion part the need for further studies and analysis of the industry is discussed.

2 OVERVIEW OF THE GAME INDUSTRY

2.1 Global Game Industry

According to a report from DFC Intelligence, an entertainment and video game industry research firm, the entire video game market was worth 67 billion dollars. Their estimates tell that the market will grow to be 82 billion dollars in 2017. Although sales have declined in the console game market, DFC Intelligence analyst David Cole is confident that the console segment will regain momentum as Microsoft, Sony and Nintendo will bring out new console systems within the 2014 and 2015 timeframe. Cole also says that the steadiest growth will be seen on PC and mobile game sales. (Finance.Yahoo, 2012)

2.2 Finnish Game Industry

Besides the reports done by Neogames and Tekes, information on the Finnish games industry is quite scarce. Finnish game developing companies often develop games for multiple platforms, although a significant part of the companies develop games for mobile platforms. (Tekes, 2013: p.2) The versatility of the Finnish game industry makes it difficult to approach only the mobile game industry. For that reason, this chapter will contain information of the Finnish game industry as a whole.

There are currently more than 150 companies operating in the Finnish games industry of which most are small and medium sized companies. This is partly due to the high activity of the Finnish start-up scene. 40% of the companies working in the industry were established during the past two years. (Tekes, 2013: p.2) Although the amount of companies and turnover have been rising steadily during the last five years, the same cannot be said about the number of employees. The economic downturn that began in the end of 2008 impacted the games industry severely as the number of employees decreased. The following charts represent turnover and the number of employees working in the Finnish games industry starting from the year 2007:

Figure 1. The amount of reported turnover in the Finnish game industry since 2007 to 2012. (Tekes, 2013)

Figure 2. The number of employees in the Finnish games industry since 2007. (Neogames, 2012)(Tekes, 2013)

Finnish game developers can be considered born global as the domestic market is not large enough to reap considerable profit. Most companies aim their products toward the Northern American market where the demand for games is remarkably higher mainly due to larger population. Over half of the industry's turnover comes from Northern America (approximately 55-60%) and one third of the turnover comes from the Western European market (approximately 30-35%). Finnish games have not been effectively entering the Asian markets to this day. This is mainly because of the high entry barriers that derive from different legislation, piracy, different business culture, different cultural background, strong competition from Asian counterparts and different earning models. (Neogames, 2012: p.10)

2.2.1 History

This chapter contains brief history of the Finnish game industry.

When listing the driving factors behind the success of the Finnish game industry, the impact of know-how and experience of the lead characters within the industry is undeniably strong. From where have these designers, programmers and electronic musicians collated their valuable experience? The answer is the sub-culture phenomenon called "demoscene", which ran strong in Finland during the late 80's and 90's. The number of game enthusiasts in Finland was relatively large compared to the size of population. In addition to playing games made by others one of their main activities was designing their own demos and introductions to games.

Petri Järvilehto, current Executive Vice President of Games for Rovio Entertainment and one of the founding members of Remedy, states in an interview in Jani Niipola's book "Pelisukupolvi" that the exceptionally large foundation of gamers in Finland has been a significant factor to the current state of the Finnish game industry. Many of these gamers have had the desire to give

their individual contribution to the industry. The demoscene is something that cannot be forgotten, it is where it all started. (Niipola, 2012: p.52)

Jaakko Lehtinen, stated in an article published in Aalto University's website (2012):

> "Computer graphics as a hobby is at a very high level in Finland. During the last couple of decades, the so-called demoscene, where mainly self-taught programmers, graphic designers and musicians compete in the creation of technical and artistic impression, has laid a foundation for the active and internationally astonishingly successful Finnish games industry."

The mid 90's was an important era in a different way. In 1995 an Espoo based game developing company Remedy was established. The company would be known for it's storybased action games. The company's first successful title "Death Rally" that was made in 1996 enabled the company to start their second project which would change the Finnish game industry forever. The game was Max Payne, a game with an intense story about a New York based policeman. Max Payne is considered as a model example of a success story within the Finnish game industry. The game and it's sequel became blockbusters with 7,5 million copies sold and they got favourable reviews from critics. (Niipola, 2012: p.16-17)

Here is a timeline including important years for the Finnish game industry (Niipola, 2012: p.246-250):

- 1992 – The first Assembly event is held in Finland.
- 1995 – Remedy and Housemarque are founded.
- 1999 – Housemarque releases Supreme Snowboarding for PC. The game sells over 1,5 million titles.
- 2001 – Remedy releases Max Payne first for PC and later for Playstation. The game sells over 5 million titles.
- 2003 – A small mobile game company called Relude is formed. The company is later to be known as Rovio.
- 2003 – Nokia engages towards the handheld console and mobile gaming market with its gaming mobile phone "N-Gage". Only 3 million units are sold and it is regarded as an failure.

- 2003 – Mobile game company Sumea is founded. Ilkka Paananen starts at Sumea.
- 2003 – Remedy makes a sequel for Max Payne although it has sold the Intellectual property (IP) of Max Payne earlier.
- 2003 – Trip Hawkins decides to establish Digital Chocolate. A company that focuses on developing mobile games. One of their operations resides in Helsinki.
- 2004 – Digital Chocolate purchases Sumea. Paananen stays in the company for years to come.
- 2004 – Facebook begins its operation. For game developers it becomes a platform of its own. In July 2012 Facebook has over 955 million users.
- 2007 – Apple publishes the iPhone. There are speculations that the iOS (Apple's operating system) might revolutionize the game industry.
- 2008 – Apple opens App Store. An application shop that is based on digital distribution.
- 2008 – Google opens Android Market. Later to be known as Google Play.
- 2009 – Mikael Hed starts as the Chief Executive Officer (CEO) of Rovio.
- 2009 – Rovio publishes its 52nd title which is Angry Birds. The game is published for iOS. During the summer of 2012 Rovio announces Angry Birds to have surpassed a Billion downloads.
- 2010 – Remedy publishes Alan Wake. The game is chosen by Time magazine as "the game of the year" with Rovio's Angry Birds as the second in their ranking.
- 2010 – Rovio hires Peter Vesterbacka to take charge of the marketing of Angry Birds.
- 2010 – The game company Supercell is founded. In 2011 Supercell raises 12 million dollars of funding from Accel Partners amongst other companies.
- 2010 – Apple launches its tablet iPad in the month of April.
- 2011 – Rovio announces the results of its fundraising which is 42 million dollars in all.

- 2011 – Peter Vesterbaka, The Chief Marketing Officer of Rovio, is chosen amongst Time 100: The most influential people in the world.
- 2011 – Remedy makes its debut on the mobile platform with a new version of Death Rally. The game makes over million dollars in nine months, with the marketing budget being just under 10.000 euros.
- 2012 – Rovio Announces its revenue of 2011 which is 48 million euros.
- 2012 – Rovio publishes Angry Birds Space. The game has been developed in cooperation with NASA of the US government.
- 2012 – Supercell release Clash of Clans and Hay Day.
- 2012 – In November 2012 Rovio Entertainment releases its Star Wars themed Angry Birds.
- 2012 – In December 2012 Supercell CEO Ilkka Paananen announces in an interview by a New York Times reporter that their two games are grossing over $500.000 a day. This makes $350.000 in revenue when Apple takes it's 30% cut. (New York Times, 2012)

2.3 Mobile Game Industry

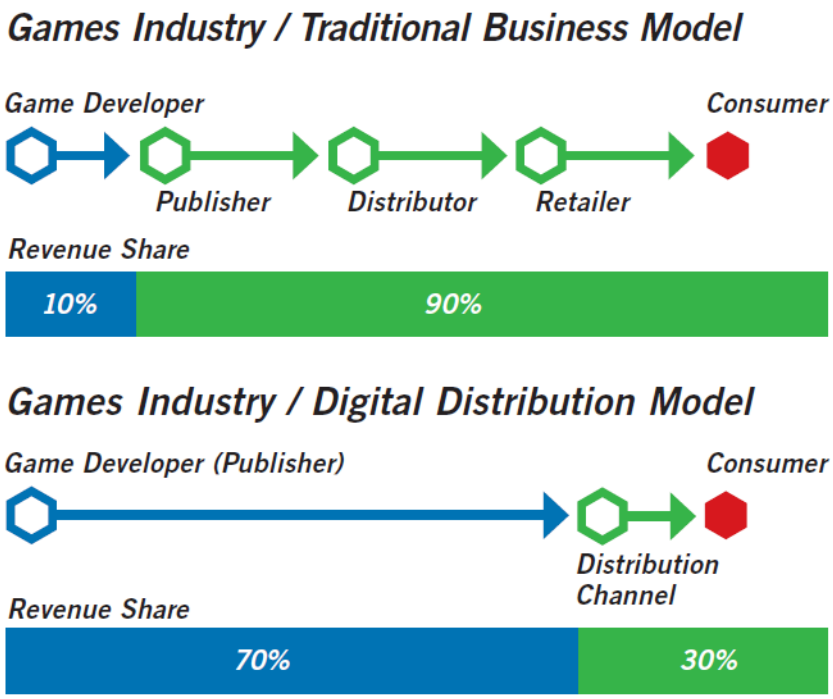
Casual gaming has exponentially grown because of the growing popularity of smartphones. Mobile devices are expected to overtake PCs and laptops as the most common device in 2015 at the latest. Especially tablets are expected to be the standard gaming device of the future. According to the Entertainment Software Association (ESA), a game industry related association in the United States, approximately 55% of the American video game players played with their smartphones or other mobile platforms. Evaluates say that the global mobile game market is going to reach a yearly revenue of 18 billion dollars by the year 2016. A third of this revenue is expected to come from games developed for tablets. This forecast tells of enourmous expectations as the share of tablet games' revenue of the whole games market revenue was only 491 million dollars in 2011. (Niipola, 2012: p.132-133)

3 LITERATURE REVIEW

3.1 Business Model

The business model within the game industry has changed radically since the emergence of effective digital distribution channels. Within the traditional publisher-driven business model, the publisher has the responsibility of marketing. Nowadays, more and more game developing companies are engaging the era of digital distribution business model. Digital distribution enables the possibility of publishing a game without a publisher. The responsibility of distribution is appointed to a specific channel. Examples of such mediums are Steam, a game and software marketplace for PC, or operating system specific stores such as iOS app store for Apple Inc. and Google Play for Android devices. (Neogames, 2011: p.11)

The most significant change in digital distribution business model has been the change of the share of revenue between the developer and distribution channel. In the traditional retail value chain model, the share of the revenue that comes back to the developer is about 8-15% and the rest is distributed between the publisher, distributor, and retailer. Meanwhile in the digital distribution value chain model the revenue that a developer receives is approximately 70%, while the intermediary/distribution channel receives 30% of the received revenue. (Neogames, 2011: p.11)



Picture 1. The share of revenue between Traditional Business Model versus Digital Distribution model. (Neogames, 2011)

Within the traditional business model the publisher finances the development and production of the product. It has been evaluated that out of 10 games, 7 will lose money, two are remunerative, and one will make considerable profit. Because of the high financial risk that the publisher has to take, it often demands the rights for the intellectual property (IP) that has been created in the developing process. By doing this, the publisher guarantees that they will have rights for the product also in the future. (Neogames & Suomen Pelinkehittäjät Ry. 2010: p. 7)

The console game developing industry has its foundations deep within the traditional business model, where publishers hold a key position. The making of a single demo for a console can cost approximately 0.5 – 1.5 million Euros, these kind of sums often being a luxury that Finnish game developing companies cannot afford. (Neogames & Suomen Pelinkehittäjät Ry. 2010: p.7)

Even though the democratic marketplaces make it possible to publish your games independently, it may prove burdensome. Turning down a publisher means that the developing company is also turning down the financial resources from the publisher and an effective mean of marketing. The developing company then has the full responsibility of marketing. So using a publisher even within the digital distribution model is not unheard of. (Neogames. 2011: p.11) The Chief Operating Officer, Ed Rumley of a game publishing company Chillingo, wants to remind individual developers that despite the easiness of uploading a game on an app store, getting the wanted result may prove harder a task. Publishing companies such as Chillingo do more than just upload the game to an app store, they help development companies to find substantial audience to their games and prepare these games for the market. Chillingo has published success stories such as “Angry Birds” and “Cut The Rope” which back their opinions. Ed Rumley states the following in an article published in gamesindustry.biz web-article (Gamesindustry.biz, 2012):

> "Half of our role is getting a game ready for market. By that I mean making sure the balance is there, making sure the game is fun, and making sure the monetization is correctly implemented. If you don't get that right, you're not going to have success acquiring consumers in the first place. The market is far more competitive today than it was even two or three years ago. If you look at the fragmentation in the markets, it's even greater. That's where I think Chillingo really comes out because we help navigate that for indie developers."

3.1.1 New Earning models

Monetization is one of the most important factors when developing a mobile game. There are a multitude of ways to earn within the mobile game sector. According to Neogames’ report the new earning models used for games are as follows (Neogames, 2011: p.12):

- The traditional way of earning from app’s is by selling the app with a single payment. this method is also known as pay per download. The price often being as low as 0,79€ a game.
- Freemium or the “free to play” model (often referred to informally as F2P) is a trend which is currently overtaking the market. In this model the

application itself is free and the earnings are gathered from in-app purchases or advertising. (Armstrong, Kotler, Harker & Brennan, 2012: p. 481)

- In-app purchases are referred to as microtransactions. These microtransactions come from virtual item sales within the game. For example in Supercell's top grossing "Clash of Clans" real currency is used to buy in-game currency, which is then used to speed up the player's game progress and buy virtual goods. (New York Times, 2012)
- In some cases, the game may at first be free, but further content or new episodes are only available for a payment. (Niipola, 2011: p.135)
- Monetization by advertising is done by selling advertisement space within the game. The game itself is free and revenue collates from advertisements. Peter Vesterbacka, the Chief Marketing Officer (CMO) of Rovio, refers to this model as free-with-ads (Neogames, 2011: p.12).

Peter Vesterbacka states in an interview that there are multiple business models that work in the mobile game industry. At Rovio they always try to see which model is most suitable for the system at stake. For example, they noticed rather quickly at Rovio that Android users are not that willing to pay for content. That is why the main model for Android is free-with-ads. In Rovio's case this worked especially well as they were able to build a massive base of installed games which attracted companies to advertise. Vesterbacka does not believe that there is one model that fits one game. This is why Rovio offers their games with all of these models. (Niipola, 2011: p.142-143)

Single payment mobile games have similar characteristics as "boxed games" that are represented in the beginning of table 1. According to a Tekes based programme's final report, the design emphasis on these single payment games is on the attractiveness of the game. The first impression and attractiveness of the game should lead to the consumer acquiring the game. After purchasing the

game the consumer then has access to all or most of the game's content. (ARMS project Final Report, 2012: p. 15)

In mobile games "game as continuous service" isn't used as often as the "free-to-play" game type. Virality and word of mouth often cause free-to-play and social games to spread quickly between consumers. Incentivising game mechanics and steadily rewarding the player within the game improves retention rates. (ARMS project Final Report, 2012) (Flurry analytics, 2013)

Game type	Primary Revenue	Pricing	Design emphasis	Relationship emphasis
Boxed games	Retail	Single price	Attractiveness, lot of initial content	Acquisition
Game as continuous service	Subscriptions	Time-based pricing	Long term engagement	Retention
Free-to-play / Social games	Virtual good sales, in-game advertising	Mictrotransactions	Virality, incentivising game mechanics	Acquisition, retention, **monetisation**

Table 1. Business models and the shift in customer relationship building emphasis. (ARMS project Final Report, 2012)

One of the main issues that mobile game developers face after the launch of a title is user retention. Based on the reports done by Flurry analytics retention and the time spent using an application correlate to higher revenues. The more usage a game has the more opportunities to sell microtransactions and advertise present itself. (Flurry analytics, 2013)

3.1.2 Blue Ocean Strategy

Instead of outperforming rivals, a company can target market space that is untainted by competition. Blue Oceans represent industries or parts of an industry that do not yet exist. Within the blue oceans demand is created rather than fought over as in the existing red ocean industries. When a blue ocean

strategy is implemented succesfully it opens up an opportunity to growth that is both quick and profitable. (Kim & Mauborgne, 2008: p.2)

Blue oceans can be created in two ways. The first one is by coming up with an entirely new industry or a business idea. This is what eBay did when it started the online auction business. The second one is by finding new dimensions in an existing red ocean industry. W. Chan Kim and Renée Mauborgne call this as ”altering the boundaries of an existing industry”. (Kim & Mauborgne, 2008: p.2)

Kotler et. al. introduce an example from the game console industry. Nintendo entered the console market in late 2006 with an alternative console called Nintendo Wii. Wii offered a different console experince than Sony’s PS3 or Microsoft’s Xbox360 were offering at the time. Rather than competing with hardware performance as Sony and Microsoft were doing, Nintendo decided to focus on a new way of gaming. Wii introduced a wireless controller that worked with motion. With a diverse selection of games where one’s body was used as the controller Wii appealed to a vast audience ranging from small children to over 40-year-old women. (Kotler, Keller, Brady, Goodman & Hansen, 2009: p.307). Nintendo Wii has sold over 97 million (as of September 30. 2012) units since it’s release in 2006 (Nintendo, 2012). I has outsold both Sony’s PS3 and Microsoft’s Xbox360 by approximately 30 million units (Sony Computer Entertainment Inc., 2012)(Microsoft, 2012).

3.2 Competition: Porter’s five forces framework

In order to truly understand the success of Finnish game developing companies during the last few years, we have to make a brief industry analysis of the game development industry. The analysis is done in terms of the five forces framework introduced by Michael E. Porter (1979). Often only the established industry rivals are considered as the main competitor for profits and market share. In reality there are four other competitive forces as well: Customers, suppliers, potential entrants and substitute products. After going through these factors, one can better understand the competition and profitability within the mobile game development industry.

The value chain of the game developing industry has undergone a major change during the last decade powered by the emergence of digital distribution. The gaming industry is human capital intense, which makes this an ideal situation for Finland. The gaming companies here are technology oriented, and the know-how of the workforce is of high quality. The largest problem that the game developing companies in Finland have to face is the lack of educated personnel. With the rate the finnish game industry is growing, the output of domestic graduated workforce is not enough.

An overview of competition and strategy is given in a literature review done on the basis Michael E. Porter's work. In 2001, Porter introduced a revised version of the five forces framework that takes into account the impact of internet on the competitive forces. Framework of five competitive forces is applied to the Finnish mobile game developing industry In chapter 5.2.

3.2.1 The five competitive forces that shape strategy

Understanding the competitive forces, and their underlying causes, will prove as a strategic asset and help predict future competition and profitability. According to Porter, a company should defend against the competitive forces and shape them into their favor.

> "The strongest competitive force or forces determine the profitability of an industry and become the most important to strategy formulation. The most salient force, however, is not always obvious" (Porter, 2008: p.26)

3.2.2 Threat of entry

"New entrants to an industry bring new capacity and a desire to gain market share that puts pressure on prices, costs, and the rate of investment necessary to compete. Particularly when new entrants are diversifying from other markets, they can leverage existing capabilities and cash flows to shake up competition." (Porter, 2008: p.26)

The incumbents must react to this threat of new competitors entering the market by holding down their prices or boosting investments in order to deter them.

This means that the threat of entry puts a cap on the profit potential of an industry. Potential entrants are held back by entry barriers. The heights of these barriers to entry are determined by the willingness and preparedness of the incumbents to react to newcomers (Porter 2008: p. 26).

> "If entry barriers are low and newcomers expect little retaliation from the entrenched competitors, the threat of entry is high and industry profitability is moderated. It is the threat of entry, not whether entry actually occurs, that holds down profitability." (Porter, 2008: p.26)

There are seven major sources for entry barriers.

1. Supply side economies of scale – "These economies arise when firms that produce at larger volumes enjoy lower costs per unit because they can spread fixed costs over more units, employ more efficient technology, or command better terms from suppliers." (Porter, 2008: p.26) These supply side economies of scale put the entrant in a position where they have to whether come into the industry with a large scale in order to stagger the entrenched competitors or enter into a price war. But as the incumbents already have a foothold in the market, the newcomers would most probably have to accept a cost disadvantage.
2. Demand side benefits of scale – "These benefits also known as network effects, arise in industries where a buyer's willingness to pay for a company's product increases with the number of other buyers who also patronize the company." (Porter, 2008: p.27). Some customers may value being part of a greater network of consumers. This network effect is emphasized if the product or service relies on the large number of buyers or users. "For instance online auction participants are attracted to eBay because it offers the most potential trading partners." (Porter, 2008: p.27)
3. Customer switching costs – "Switching costs are fixed cost that the buyers face when they change suppliers. Such costs may

arise because a buyer who switches vendors must, for example, alter product specifications, retrain employees to use a new product, or modify processes or information systems. ” (Porter, 2008: p.27)

4. Capital Requirements – This occurs if companies need to invest large financial resources in order to compete. Capital requirements work as a barrier rather well if the capital is needed for unrecoverable and therefore harder to finance, expenditures. Up-front advertisement or research and development are few examples of this kind of expenditures. Porter emphasizes the importance of capital requirements as a deterrent of entry. He states that if the industry returns are profitable and are expected to remain so, and if capital markets are efficient, investors are going to provide entrants with the funds they need. So financing is found in even the most expensive industries if the value for money is good or if the resale value for the bought products is high. (Porter 2008: p. 27)
5. Incumbency advantages independent of size – Incumbents may have cost or quality advantages that are unavailable for new entrants. “These advantages can stem from such sources as proprietary technology, preferential access to the best raw material sources, pre-emption of the most favorable geographic locations, established brand identities, or cumulative experience that has allowed incumbents to learn how to produce more efficiently.” (Porter, 2008: p.27)
6. Unequal access to distribution channels – In order to have its product or service sold the new entrant has to secure a distribution channel for it. Finding a suitable channel isn’t always easy as it may require displacing the products of incumbents. Displacing entrenched competitors may need price breaks, promotions, intense selling efforts, or some other means. Entering an industry where distribution channels are scarce, or

they are already tied up by competitors will prove quite tough. Sometimes the unequal access to distribution channels proves so hard for companies that they decide to bypass old distribution channels and create one of their own. (Porter 2008: p. 28)

7. Restrictive government policy – “Government policy can hinder or aid new entry directly, as well as amplify (or nullify) the other entry barriers. Government directly limits or even forecloses entry into industry through, for instance, licensing requirements and restrictions on foreign investment.” (Porter, 2008: p.28) Government can also lower entry barriers directly by giving subsidies to specific companies or indirectly by funding research for all companies within an industry.

Companies that already have a foothold in the industry must be aware of all the ways of the newcomers to circumvent these apparent barriers. Strategists have to be prepared to counter start-ups, foreign firms, or companies from other industries. The potential entrants may reconsider their entry to an industry if the retaliation of the incumbents is expected to be vigorous. The profit potential of the industry falls considerably if the companies are willing to a protracted reaction to newcomers. Public statements are often used by incumbents to show how committed they are in defending their market share against the potential newcomers. (Porter 2008: p. 29)

There are few ways to predict retaliation in an industry. All of these work as a deterrent for the potential entrants:

- If the incumbents have a history of vigorously responding to new entrants, they are likely to do it again.
- The incumbents might have substantial resources to fight off new competitors trying to win market share. These resources may be either monetary, available productive capacity, or clout with distribution channels and customers.

- Incumbents that are ready to defend their market share at all costs are likely to cut prices, if a new company enters the market. The industry also might have high fixed costs, which create a strong motivation to drop prices to fill excess capacity.
- If industry growth is slow, the only way of getting market share is by taking it from the incumbents. (Porter 2008: p. 29)

3.2.3 The Power of suppliers

The influence of suppliers to profitability in an industry is undeniable. The more powerful these suppliers are the more they can capture value for themselves. They can do this either by charging higher prices, limiting quality or services, or shifting costs to industry participants. The bargaining power of the suppliers is especially high if there are only few suppliers and many buyers. This means that the suppliers are more concentrated than the industry their selling to. The lack of substitute products or services can lead to supplier power becoming rather high. This works both ways though. If there are multiple options for the buyer to choose from, the bargaining power of the suppliers is decreased. (Porter 2008: p. 29)

The suppliers take advantage of the knowledge of the buyer. If the knowledge of the buyer is low in the market the suppliers are able to sell their products even if there would be a better substitute for their product. Suppliers will definitely try to squeeze out maximum profits from an industry, especially if they are serving multiple industries. In this case they are not fully dependant on the concerning industry and are willing to take more risks for maximum profits. But if the supplier is highly dependant on the revenue of a certain industry they will try to protect it by reasonable pricing and even help the industry thrive by supporting it in activities such as R&D and lobbying. (Porter 2008: p. 29-30)

Industry participants will face switching costs when changing suppliers. Switching costs are higher when the industry participants are more committed

to the product, or either there is a difficult learning process to use the suppliers product. In some cases the companies have their production lines adjacent to their suppliers manufacturing facilities, in which case changing the supplier would be very costly or even impossible. The supplier can also be irreplaceable in terms of what it supplies to the industry participant. For these reasons some unions have considerable power over some companies, as there is no substitute for qualified workforce at some industries. For example the power of pilots' unions over airline companies is undeniable. (Porter 2008: p. 30)

If the profitability of the industry participants is relatively much higher than of the suppliers, there is a strong possibility for the suppliers to engage and enter the industry theirselves. (Porter 2008: p. 30)

3.2.4 The Power of buyers

Companies have to withstand heavy pressure from both ends of the supply chain. Just as powerful suppliers, powerful buyers have their means of capturing more value in the market. By demanding better quality from products or services, they drive up the costs. Price sensitive customers force down prices, and so diminish the profitability of an industry. Just as suppliers the buyers can be divided into distinctive groups which differ in bargaining power. (Porter 2008: p. 30)

If the buyer group is either concentrated or buys in high volume they are powerful in sense of bargaining leverage. The power of these large volume buyers are emphasized in industries where fixed costs are high. Industries such as airlines, auto manufacturering and drilling operations have high fixed costs. Companies working in industries characterized by high fixed cost tend to have pressure to keep capacity filled at all times. (Porter 1998: p. 29)

The consumer will play industry participants against one another if the products being purchased are standard or undifferentiated. In these kind of industries the customer can always be sure it can find alternative products from different suppliers. (Porter 1998: p. 29-30)

Customers are less likely to be price sensitive if the product represents only a fraction of their costs, whereas if the product is expensive and part of a bigger component the customer will be most likely to purchase selectively and seek for favourable prices. Low earning consumers tend to lower their purchasing costs, and high earning customers are less price sensitive, if the purchase does not account for a large fraction of their overall costs. (Porter 1998: p. 30)

Buyers are more price sensitive if the industry's product does not play an important part of the buyer's final product or service. In industries where the quality of the buyers product or service is immensely affected by the seller's product the buyers are less likely to be price sensitive. Malfuctions or defects in low quality parts may lead to large financial losses in industries where the whole output of the company is affected by one change in the production line. (Porter 2008: p. 30)

Quality over low price is often considered when the bought product is expected to pay itself over and make profit by improving performance, or by lowering other costs. In situations where the product is not expected to save the consumer more money, they are more likely to be focused on the price. Services such as tax accounting and investment banking are often chosen by quality, as errors in their field may prove costly and embarrassing for the company. In large industry businesses, like logging of oil wells, accuracy and good preparation can save a fine amount of money for the company. (Porter 1998: p. 30)

The customers can pose a threat of integrating backward to the industry and manufacture the product or service theirselves, if the vendors prove to be too profitable. Companies in beverage and food industry have long used their buyer leverage against packaging companies, by threathening to enter the packaging business by manufacturing their own bottles or packages. Some companies have also implemented this by adding packaging to their manufacturing responsibilities. (Porter 2008: p. 30)

Most of these different sources of buyer power can be applied to both industrial and commercial customers. Consumers buying preferences are affected highly if the products are undifferentiated, expensive relative to their income, or when the focus is not on the quality of the product. In these cases consumers tend to be more price sensitive. The main difference between consumers and business-to-business customers is that the customers' needs are more intangible and harder to quantify. (Porter 2008: p. 30-31)

Intermediate customers, meaning retailers, can use the influence they have on consumers' purchasing decisions as a significant bargaining power over manufacturers. The retailing of some goods are characterized by this strong influence on end users. This can be especially seen as the heavy use of associative advertisement in the retail of jewelry, appliances, sporting goods, consumer audio components, and of other goods. (Porter 1998: p. 31)

3.2.5 The threath of substitutes

Substitutes limit industry's profitability and potential of an industry as they place a ceiling for prices. A way of defending against substitutes is upgrading the quality of the product or differentiating it somehow (Porter 1998: p. 32). By having a similar or even the same function substitutes try to replace the industry's product. Plastic is a substitute for aluminium. Tea is a substitute for coffee. The threat of substitutes exists sometimes as downstream or indirect. Indirect competitors' product may replace the buyer industry's product. Software that has been exclusively sold to travel agents is threatened as airline and travel websites substitute for travel agents. (Porter 2008: p. 31)

Often substitutes are overlooked as they prove to be nothing like the industry's product. This is often determined by the purpose the product is bought for. For example when buying a gift for father's day necktie can work as a substitute for power tools. Deciding not to buy any product, buying the product as used, or making the product in-house is a substitute for the industry's product. (Porter 2008: p. 31)

The cap put on a industry's profit potential by substitutes isn't there only at normal times. When an industry is booming substitutes reduce the potential amount of profit an industry's product can reap from a market. For example mobile phones have replaced traditional wired telephones lines in many households. This has capped the profit potential of wired telephone line service providers. (Porter 2008: p. 31)

There are some main factors that determine whether the threat of substitutes is high in an industry. If there is a product on a market that serves the same purpose with a better price to performance ratio the customer is likely to go for that product. This means that the relative value of the substitute is good, and so it limits the profitability of the industry. (Porter 2008: p. 31) For example the improved internet broadband everywhere has enabled the efficient streaming of music, movies and series, which then has decreased the profit potential of stores selling electronic entertainment, and video rental outlets. This can be seen as the emergence of on-demand Internet streaming media such as Spotify and Netflix.

The lower the switching cost is for the buyer, the easier it is for him/her to switch to a substitute product. Medicinal product industry is full of proprietary and branded products that are expensive relative to generic ones. Once the patent for a drug has expired, generic drugs often enter the market. The switch towards these generic drugs contains usually minimal costs for the buyer so a shift to cheap generic drugs is usually fast. (Porter 2008: p. 31)

Strategists should always be alert for potential substitutes, that may emerge when industrial changes happen. Some products may prove to be worthy substitutes after improvement. As different plastic materials improve they begin to threaten steel as a production material in industries such as automobile component manufacturing. This way changes in businesses that may seem unrelated might have severe consequences in industry profitability. The threat of substitution may also shift in favour of an industry, improving it's profit and growth potential. (Porter 2008: p. 31-32)

3.2.6 Rivalry among existing competitors

There are different tactics in positioning one's company against existing competitors. A company can jockey for position by price discounting, introducing new products, advertising campaigns, and improving the overall service level. If there are many companies fighting for market share, the level of rivalry is high and therefore industry profitability is limited. But the degree to which industry profitability potential is limited to, is determined by the intensity and basis of the rivalry. (Porter 2008: p. 32)

The intensity of rivalry is high in situations when there are a lot of competitors on the market, or the competitors are equal in size and power. The rate of industrial growth affects intensity as well. Industries with slow growth rate are often characterized by intense fighting for market share. When product or services lack of differentiation or switching costs lead to the company being more prone to raids done by competitors to acquire one's customers. (Porter 2008: p. 32)

Exit barriers are a influencing factor to the intensity of rivalry. If the management of a company is highly devoted to a particular business or if very specialized assets are used in doing business, companies may keep competing even though they may receive low or even negative returns on investment. By clinging on the market these unhealthy competitors hinder the profitability of the healthy ones. Government intervention and help is possible if an entire industry is suffering from overcapacity. (Porter 1998: p. 33)

When the product is either perishable or when fixed costs are high companies are often tempted to cut prices. This is common in industries dealing with basic materials. Businesses want to keep capacity filled even when demand slackens. (Porter 1998: p. 33)

Companies enter a zero-sum game if they all compete each other within the same dimensions of rivalry. Competing on the same dimensions means trying to serve customers and consumers by aiming to meet the same needs and using same attributes as their competition. This can be avoided if companies

segment and target their low-price offerings to different customers. (Porter 2008: p. 33)

3.2.7 Critique of Porter's five forces –framework

Porter's ideas on strategic management and competition have received criticism because of the business context they were developed in. Porter's theories were introduced in the eighties and thus base on the economic situation that prevailed at the time. The market structure at the time was considered to be relatively stable and cyclical growth characterized the global economy. The economic conditions have changed from that time and nowadays the internet influences strongly to almost every industry. The five forces framework does not completely take into account the new business models and the market dynamics that have emerged through the rise of the internet. (Recklies, 2001)

Larry Downes states in his article "Beyond Porter" (1998), that Porter's five forces framework was adequate during the period it was released and it does not work in the modern marketplace without the introduction of new forces. Downes then introduced three new forces that are Digitalization, Globalization and Deregulation. According to Downes the five forces framework as itself is too static to analyse todays dynamic marketplace.

- Digitalization: As the power of information technology grows every industry participant and consumer has access to more information than they used to have. Technological development leads to new business models being introduced. The easily accessed information results in vastly changed markets. Competitors may come from outside industry borders and are often unfamiliar and unpredictable. As an example Downes gives electronic shopping malls that are operated by credit card organizations or telecom companies. (Downes, 1998)
- Globalization: The improvement in communication and internet access has made the modern marketplace global in a sense that nearly all companies operate in a global level. For the same reason consumers are able to shop around and compare prices globally. It is not anymore

enough for companies to just position themselves as price-leaders or quality-leaders as stated in the Generic Strategies model of Porter. Businesses should instead focus on developing lasting relationships with suppliers, partners and ever more mobile customers. (Downes, 1998)

- Deregulation: During the last two decades the influence of governments has decreased on many industries such as airline, communications, and banking in the U.S. and Europe. Organizations working in these industries have gained new opportunities and have been able to restructure theirselves with the more efficient use of information technology. (Downes, 1998)

4 CASE STUDIES

4.1 Data and methods

The data on these case studies is secondary data which is collected from different literary and online sources. Excerpts of interviews conducted by game industry specific have operated as the main source of data for these case studies. The lack of primary data is unfortunate and leads to the validity of the study slighty suffering. The case study of Rovio does not point out enough success factors to make a comparison between them and Supercell. In Supercell's case concrete success factors could be extracted and analysed in detail.

4.2 Rovio: Angry Birds

In 2003 Niklas Hed, Jarno Väkeväinen and Kim Dikert founded a game development company called Relude. The company developed mobile games to order for the likes of Nokia and Electronic Arts. In 2005 Relude changed its name to Rovio. Rovio was able to make good games and from which few licensing games were even considered hits but not on as big scale as the company would have wanted. In 2009, six years and about fifty games after the founding of the company, Niklas Hed was appointed as the Chief Executive Officer of the company. With the lead of Hed the company started making games of their own instead of just selling the intellectual property (IP) for others. Owning the IP of a hit game would prove 50 times more valuable than making games for others. The company would still make games to order, but the emphasis was on developing games of their own. (Niipola, 2012: p.157)

The popularity of Apple's Iphone had skyrocketed in 2009 but there was not a game that would efficiently make use of the systems qualities. Rovio started to make ideas which could be then developed to games for the iPhone. At this point the only person left from the founding of Rovio was Niklas Hed. Angry birds was published for the iPhone in December of 2009. (Niipola, 2012: p.158)

Rovio had a simple strategy on promoting the game. At the time Apple tended to highlight apps that had colourful characters, overview and imagery used in the logo design. This lead to the characters of Angry Birds being the center of design. Rovio decided to use Chillingo as a publisher for the game. Chillingo was selected because of having a good track record in its earlier publicity campaigns. Finally Apple selected the game as a highlight of the application stores products, so it is safe to say that Rovio's strategy worked. Angry Birds was then able to collect mainly positive word-of-mouth reviews which led to more and more sales. The popularity of the game fed itself and the company was able to keep the traditional advertising expenditure next to nothing. (Armstrong, Kotler, Harker & Brennan, 2012: p.481-482)

With several sequels to the game, Angry birds is now such a strong brand that Rovio can focus on selling game-related merchandise and other products. Angry Birds can be seen everywhere at the moment, from plush toys to fishing gear. (Armstrong, Kotler, Harker & Brennan, 2012: p.482)(Finance.yahoo, 2013)

4.3 Supercell

Supercell truly proves that Rovio is not the only successful game development company in Finland. Amongst all the the game developing companies distributing their games through Apple's appstore Supercell is the one with the highest monthly revenues. Supercell has only two titles for mobile devices, these are "Clash of The Clans" and "Hay Day". This is an amazing accomplishment when taking into consideration that they are competing against the likes of enourmous corporations such as Electronic Arts that has 969 titles (as of December, 2012) for iOS. (App Annie Index, 2012)

Although Supercell is a considerably young company, it's founders have a relatively long history in game developing. In an article published in Gamasutra, a website that focuses on all aspects of video game development, Ilkka Paananen, the CEO of Supercell, tells how all this started and what he

considers to be the factors behind their success. The career of Paananen within the game developing industry started by co-founding Sumea in 2000, a company which eventually was bought by social-game developer Digital Chocolate. After Paananen had hold the position of president in Digital Chocolate for four years he decided to start fresh by founding Supercell. (Gamasutra, 2012: p.1)

According to Paananen the most important aspect to consider when building a next generation game developing company is finding the right people. Most of Supercell's employees have over 10 years of experience when it comes to creating and selling commercial games. Finding the right person for specific project may at times prove to be difficult, and Supercell is willing to suffer when waiting for quality personnel to emerge. This does not bother Paananen as staying small and agile is one of the core parts of their philosophy and vision. (Gamasutra, 2012: p.1)

The emergence of democratic marketplaces such as appstore for iOS, and facebook opened a direct pathway to consumers. Paananen states that earlier the value chain contained a middleman in the form of a large international publisher. Nowadays the developers can focus more on the product itself and set their creativity free. (Gamasutra, 2012: p.1)

Supercell nowadays focuses on tablet and smartphone games. The situation was not always as such. In 2011 they started with a cross-platform game "Gunshine", to which one could have access with both web-browsers and mobile devices. The game did not prove to be successful but the people at Supercell realized that the tablet would be an ultimate game platform, and something they would put their focus on when developing future games. (Gamasutra, 2012: p.2)

In Paananen's opinion games should be developed from the beginning to a specific platform, otherwise they would not succeed. This is something they experienced first hand. Unless they would not focus thoroughly on developing for tablet from ground up, the chances for introducing a commercionally

successful game this platform would be slim to none. Their tablet-first strategy could seem bad at first, when taking into account that there are more IPhones (Apple's smartphones) than IPads (Apple's tablets). This is something that Paananen acknowledges and states the following when interviewed for Gamasutra's web article (2012):

> "I think it results in better games and, ironically, results in better games for the iPhone. When you design for a highly fidelity platform and a bigger screen and so on, you need to put even more emphasis on the quality. And honestly, we think that the tablet is the ultimate game platform. We think that in three to five years ahead, it's going to be the device that most people consume entertainment from."

Paananen says that more important than their tablet emphasized strategy is their culture. At the center of their culture is the willingness to stay small. Often as game developing companies achieve sudden success similar to Supercell's recent accomplishments an urge of instant growth takes over. Companies that have started with small and passionate teams transform into companies with hundreds of employees and game projects become constantly more expensive. With new investors comes new responsibilities, at this point new growth targets are often introduced. Companies become afraid of failing and thus less willing to take risks. This can be seen from the fact that companies introduce more and more sequels instead of new titles. (Gamasutra, 2012: p.2) As an example, in Gamasutra's feature (2012) Paananen accords Zynga's FarmVille franchise. The first FarmVille game for Facebook was made by a small development group, and the sequel for the blockbuster game was made by approximately 100 people in 18 months:

> "Okay, but what did the users think? Did they love the game? Well, maybe not. It really hasn't done that well. It's unbelievable that time after time after time, this industry falls into this same trap. You get bigger, you get slower, you build more expensive products, but they might not be the best products for the consumers."

Supercell does not support dedicating individual game designers in developing specific parts of the game. The developers work as a team and everybody in the team is responsible for the end-user experience. An employee can voice his/her opinion in any part of the developing process regardless of their position in the company. As an organization Supercell is an extremely flat and bureaucracy is limited to a minimum amount. Working spaces are open as no

one has dedicated office space, and teams are given free hands to operate independently. (Gamasutra, 2012: p.2) According to Armstrong, Kotler, Harker & Brennan this team based product development, also known as simultaneous product development, approach emphasizes efficiency as various company departments work closely together and overlap product development processes to save time. (Armstrong, Kotler, Harker & Brennan, 2012: p. 590)

These values and flat organizational structure have been successfully implemented before by a game developing powerhouse called Valve. According to Paananen, the open environment leads to a more agile company that can react more quickly in the game industry that is regarded as volatile and fast paced (Gamasutra, 2012):

> "Giving orders like a top-down management just doesn't work at all. I think the information just flows so much better. There's the feeling that we're all in this together. It makes sense in our relatively fast-moving and dynamic environment too. It's just good to have everyone as close by as possible."

At Supercell processes are avoided as much as possible, as nobody is keen on doing them. Although in certain situations going through process is inevitable. In order to voluntarily start a process in the company there has to be an extremely good reason. Paananen also points out that transparency has become a vital part of their organization. Every morning an automatic email regarding performance data of the company's products is sent to every employee. The email consists of following data: user figures, revenue figures and other critical performance indicators such as retention rates. The data is sent to every single person in the organization and by doing this they aim to eliminate all secrecy from the company. Paananen states that (Gamasutra, 2012):

> "Even if I wanted to keep something secret I can't, because I force myself to send all the data every single morning, and there's nothing I can do about it! It actually helps the management of the company, because it makes our culture very results-driven, and there's no politics."

This level of openness is rather important, especially if a product is performing at a low level. Risk taking is encouraged at Supercell. And failures are something that often come hand in hand when playing against the odds. Failures are regarded as learning processes. Supercell does not celebrate only

successful game launches, but failures as well. When a product has to be killed, meaning it is taken out of distribution, the employees at Supercell gather for an event that is similar to a postmortem. At these events employees and work teams can openly discuss about what went wrong with the product, and how are they going to do better next time. Although Supercell had two hit products in 2012, it had to kill three products as they were not performing as expected. According to Paananen teams learn more in times of failure than in times of success (Gamasutra, 2012):

> "When you fail you learn, and that's worth celebrating. This will also encourage risk-taking. If you punish failure, that doesn't encourage you to take risks. You'll end up just doing sequels and playing safe."

As the last important factor in Supercell's recent success Paananen points out to Finland's suitability as the base of operations. The mix between a lot of engineering talent and creativity of the Finnish workers finally results in good games. Paananen also thinks that the finnish have a strong culture of storytelling, which helps in the creation of intriguing games. The success factors that Paananen stated in the article are summarized on a list below:

- Vast experience of the management and developers in the organization.
- Supercell emphasizes the importance of finding the right people for the job.
- Small is beautiful – small teams provide the best results.
- Independence – teams are encouraged to act on their own and to do quick decisions.
- Focusing on the tablet-first strategy.
- Flat and open organization.
- Transparency.
- Minimum amount of bureaucracy and processes.
- Risks – Not being afraid to fail.
- Finland as the base of operations.
- The emergence of democratic marketplaces through digital distribution.

5 EVALUATION

5.1 Strategic management aspects

According to the literature review in this study a Strengths, Weaknesses, Opportunities & Threats framework can be conducted. The most important strength for the Finnish mobile game industry is the experience accumulated to individual developers stemming from decades of demo-development and game development. Finnish game programmers, game music composers and graphic designers constantly reach a high level of professionalism and quality in their work. Even the average Finnish game programmer can be compared to the higher echelon of the global development know-how. The price-quality ratio of the Finnish mobile gaming workforce is favourable when comparing to the American counterparts especially in the expensive Silicon Valley/San Fransisco region. According to Tekes' report in 2013, the average gross monthly salary for a worker in the Finnish game industry was 3590 Euros (Tekes, 2013). The annual salary survey conducted by "Game Developer Magazine" shows that the average yearly salary for US-based game developers was $84 337 (USD) and $66 116 (USD) for game programmers in first three years into their career. The salary survey lists salaries that developers made in 2012 (Game Developer Magazine, 2013). After converting this to euros, the monthly salary for a US-based game developer was approximately 5380 Euros and for US-based programmers 4220 Euros. So both being considerably higher than the Finnish equivalent. Another strength for mobile game companies operating in Finland is the strong gaming and game development culture.

The Finnish mobile game industry is supported financially by Tekes. Since the late 1990's Tekes has offered Finnish game developing companies public funding and subsidies. The additional funds given by Tekes have made the crucial and extensive R&D done by game developers possible. In 2011 Tekes funded the Finnish game industry with approximately 8.6 million euros. Currently Tekes is running a programme called "Skene – Games refueled" which has an aim of improving Finland's gaming and entertainment

internationally to an even higher level. In addition to funding the industry with approximately 70 million euros, Skene also aids game developing companies in business development, networking with investors, publishers and other game companies, and market research. (Tekes, 2013)

The application market is currently saturated with games that resemble more and more of each other. Companies need to differentiate their games somehow in order to get discovered from the midst of the vast competition. Although the technological know-how of the Finnish game development companies is of the top level, the experience in marketing and business development is often lacking especially in the smaller start-up companies. One of the most considerable weaknesses of the industry is that the demand of qualified workforce exceeds the supply of domestic educated employees without resource. Another weakness for the Finnish mobile game industry is the small size of the domestic market. The domestic market is often used as a target only in the beta testing phase of product development. In order to make real profit the target market for Finnish mobile game companies is Northern America. The amount of domestic venture capital is rather small when comparing to international standards. Domestic venture capital is also very hard to get. For this reason financing is often gathered from abroad.

Next is the list of opportunities in the Finnish mobile game industry. The increasing use of digital distribution brings more opportunities for the Finnish mobile game development market. The demand for games is on a steady rise while the achieved success in the game development industry paves the way for more for more educational institutions to take game development within their study programmes. By doing this the shortage of domestic educated workforce can be filled. Challenges in internationalization can be considered as opportunities. Especially the Asian market is yet to be truly entered. There is a lot of room to make the mobile game industry an attractive target for domestic venture capitalists.

The threats for the mobile game industry are as follows: The disparity of platforms seems to increase as more and more smartphones are introduced

every day. Different operating systems urge game developing companies to make versions for each system or dedicate their game development to single system at a time. The education may also threaten to fall behind of the fast paced progress of the mobile game industry. Being unable to find qualified workforce companies cannot grow to be internationally credible. The quickly growing Finnish game industry could employ more than 400 new workers every year but the amount of graduates in the industry reaches only a third of the desired amount. The estimated number of students graduating to this field this year is only 150. (Roslund, 2013)

5.2 Five Forces framework applied on the Finnish mobile game development industry

In the literature review the five forces were listed and explained how they are applied generally in business. This chapter will explain how the five forces apply to the mobile game development industry.

Due to the fact that the mobile game industry is global in its nature the threat of potential entrants is extremely high. The entry barriers that exist are low as publishing a game within any of the digital distribution channels is rather easy. In addition to game development companies and large publishers, anyone who has the skill to develop a mobile game is considered a potential competitor. The highly active game company start-up scene in Finland, which was discussed in chapter 2.2, is something that derives from the effects of easy distribution and low cost development. Due to fast development times and easy distribution games are also easy to imitate. The mobile game market is quickly saturated with clones after a game reaches high popularity.

Mobile games that have free entry acquire positive network effects easily that add to the value of the service for all the users. This applies especially to games with multiplayer and social functions. (ARMS, 2012: p.16) Angry Birds by Rovio for example exhibits a high degree of network effects.

The hardware and software required to develop mobile games is rather affordable nowadays which supports the fact that supplier power is low. This is partly because of the vast amount of options they have in equipment and software section. According to industry veterans Johannes Vuorinen and Juhana Myllys in an article published in 3/2013 issue of Pelit magazine (a Finnish game industry related magazine) and written by Jouni Utriainen the tools for game development have improved and they are often usable with an affordable price or even free of charge. Making good use of the digital distribution channels can be done by anyone. You really need nothing but few people and an idea. As an example Vuorinen and Myllys used their own computers as hardware at the beginning of their start-up company Frogmind. Later they moved on to purchasing high-performance laptops and a tablet meant for visual designing. (Utriainen, 2013: p.59) The revenue for mobile game companies often comes from the sales of virtual goods and services which also supports the fact that the game developers aren't dependable on suppliers.

Apple's appstore, Google Play and Windows marketplace also represent suppliers as they provide the game development companies with the digital distribution medium. The distribution channels are highly dependant of the game development companies as they receive the appointed proportion, which is approximately 30% as stated in chapter 3.1, of the entire revenue a game makes.

Although workforce is not regarded as a supplier group they have high power in limiting the growth and profitability of the mobile game industry. One of the main issues regarding the Finnish mobile game industry is the inadequate amount of students graduating every year for the use of mobile game companies. The problem was already assessed in the end of chapter 5.1.

Any form of entertainment can be seen as a substitute for mobile games. But the growing popularity of smartphones and casual gaming, that can played on the go, forecast the further growth of mobile game industry. This was addressed in chapter 2.3.

The amount of applications listed in the app store speaks of heavy competition. In January of 2013 the number of apps was approximately 775 000. (About, 2013) Price sensitive customers can find games that use free-to-play business model. This leads to the bargaining power of the buyers being high.

The rivalry against existing competitors is high. It easy to learn from competitors and imitate their products, because of short development times and low costs. Differentiating products becomes vital in acquiring coverage. In order not to compete each other within the same dimensions of rivalry, some companies decide to develop niche applications and games for the specific needs of users. (Readwrite, 2011)

6 CONCLUSION & DISCUSSION

The objective of this study was to find factors influencing the success of the Finnish mobile game industry. In addition to critical success factors that apply specifically to the Finnish mobile game industry, the conclusion also includes supporting factors. The following factors are not in order of importance since together they form a coherent unity.

As stated in the chapter 2.2.1. the highly active “demoscene” created a solid foundation for the whole game industry in Finland. The mainly self taught game programmers, visual designers and music composers that started making game content already in the late 80’s and early 90’s are nowadays industry veterans with decades of experience. Many of these characters that belonged to the demoscene are now working in the mobile game industry.

Currently the mobile game industry is a rather attractive field. The success stories of companies such as Rovio and Supercell have inspired new entrepreneurs to enter the market. The vibrant start-up culture of Finland was mentioned in chapter 2.2. The Finnish start-up scene has some specific characteristics such as fearlessness to fail. University students have been the driving factor behind the activity of the start-up scene. They are young

entrepreneurs that are passionate about technology, entrepreneurship, business models and innovations. (Niipola, 2012: p. 216)

The government run institution Tekes plays an important role in the Finnish mobile game industry's success and growth. In chapter 5.1. the Tekes funding and assistance was addressed. The CEO of Supercell, Ilkka Paananen, states in Talouselämä's article that the enourmous success of Supercell wouldn't have been possible without Tekes' support. Supercell has since paid back the loan given by Tekes' in addition to paying 44 million euros in taxes to the Finnish government between January and March of the year 2013. (Talouselämä, 2013)

Although the current situation of Nokia is not considered enviable, one can not ignore the corporation's importance for the Finnish mobile game industry. Because of Nokia, Finland now has hundreds of people who have a way of thinking and planning things in a global perspective. Some of the programmers who started at Nokia, saw the game industry as a natural continuum for their careers. Some companies, such as Rovio, have been directly working with Nokia as subcontractors, while others have learned from Nokia indirectly. According to Antti Vilpponen, the founder and editor-in-chief of Arctic Startup, Nokia has fueled the development of the Finnish game development know-how. If one compares the Finnish mobile game industry to the corresponding ones in Sweden or in Denmark, a difference can be seen in their size. (Niipola, 2012: p.62-70)

As stated in chapter 1.1. The Finnish mobile game industry is supported by a good infrastructure and educational system. In chapter 3.1. the importance of digital distribution was mentioned. These along with the social acceptability of gaming form the supporting factors influencing the Finnish mobile game industry. Although these supporting factors are important they do not create a successful industry on their own. Critical success factors are something that differentiate Finland from others.

6.1 Recommendations for future research

The thesis relies mostly in literature regarding the finnish mobile game industry and the companies within it. A comparison between Finnish companies and foreign companies would be recommended in order to truly find out the scale of success of the Finnish mobile game industry. Research on the sustainability of the mobile game industrys growth is also welcome. The study might prove quite difficult because of the fact that the game industry is rather volatile. As information technology improves everyday, new platforms and new business models are introduced, the game industry has the potential to change in a fast paced and large scaled manner. An option for approaching the subject would be comparing the current state of the industry to the global game industry’s state before the collapse of the IT bubble in 2000.

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