Abstract

The video game industry is the industry focusing on the development, distribution and monetization of video games. This industry has grown rapidly during the 21st century and this trend continues to accelerate in the future (Ell, 2018). The video game industry has expanded and evolved through technological advancements which have allowed the industry to escalate at such a fast pace. The video game scene has extended from pure entertainment to educational, competitive and creative purposes. As technology plays a crucial role in the everyday lives of the modern society, so will the video game industry.

To understand the extent of the effect that the video game industry has had we take a closer look at the core of the industry, their business models and how they operate. Business model as a concept has no unified description or model but rather works as a framework to examine the core functions of a business. Therefore, for us to gain a comprehensive idea of the industry, we focused on four centric elements of business; the offering, the customer, the infrastructure and financial viability.

Through these four elements we analysed the significant factors we found during our research, affecting the operations of the video game companies.

The offering includes the value proposition of the company. Regarding the value proposition, these companies work as facilitators and inspirers for the value creation. The companies attempt to funnel their resources to facilitate the co-creation of value with the customers and to inspire them to utilize these resources. In game development this is seen from the continuous engagement and interaction between the developers and the customers to create value that addresses the fluctuating needs. The customer addresses the segmentation and engagement channels with the customers. The customer base is segmented based on their playing habits. The identification of separate segments allows the companies to focus their development and marketing efforts on the appropriate audience and through the right channels. The infrastructure depicts the key resources that allow the companies to facilitate the value creation process. These resources include the human knowledge and know-how to create and implement the co-created value. These resources can be internal or externally gained through various networks, strategic alliances or acquisitions. Finally, we arrive to the last section of the analysis, the financial viability. Profitability is one of the fundamental pillars for growth and successful business. It is formed as the difference of revenue and costs. Revenue is the monetization of the value delivered to the customers and costs are formed from the resources and assets used to create and deliver this value.

All these elements described play a significant role in enabling the companies to facilitate and inspire the value co-creation with the customers, delivering this value to the customers and monetizing this process cost efficiently, for the companies to grow and continue their profitable operations.

Keywords Business model, Video game industry
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1. Introduction

The video game industry is the industry dedicated to the development, distribution and monetization of video games. The selection of games is vast as the industry has expanded in the 21st century, with the most popular types, or genres, of games being first-person shooter games (FPS games), multiplayer battle arena games (MOBA games) and real-time strategy games (RTS games). The increasing selection of games is facilitated by the rapid growth of the industry, and the trending will continue to accelerate in the future (Ell, 2018). As technological advancements play the key role in enabling the growth of the industry, when technology keeps expanding and advancing, so does the video game industry (Ell, 2018). According to this article written by Ell (2018), video games are taking over other forms of media in popularity, as the consumption is cheaper. In addition, video games have conquered the competitive scene with the rise of electronic sports (eSports). The fast growth of the industry and the revolutionary changes in the utilization of business models increase the importance of closer analysis of the industry.

On top of this, I have been an active video game player for a long time and video games have been a big part of my youth. My interest for them has only increased as technological enhancements have enabled new possibilities for the industry. I wanted to figure out the most significant factors behind the success of the large video game companies and started by examining the business models of these companies. As the analysis will depict, the findings showed new methods for customer engagement, value delivery and monetization. Therefore, I find further examination of the industry and their business models valuable.

To understand this industry better and gain valuable information through the analysis, this paper attempts to enlighten two main questions; “What is a business model?” and “What do we know about the business models in the video game industry?”. My research focuses around the research literature on business models and articles in business journals considering the video game industry. My main sources for my analysis include the literature from “Business Model Generations” published by Osterwalder and Pigneur (2010) and the article “eBusiness Model Design, Classification and Measurements” published by Dubosson-Torbay et al. (2001). In addition, I use multiple online articles to gain perspective of the video game industry and on which I reflect the findings from the research literature. The model used in our analysis is
founded on the models presented in these articles and modified by combining the focus areas from other sources.

2. Business models

2.1 Literature review

The Business model has been the subject of multiple discussions and the focus of substantial attention by academics and practitioners (Zott C., Amit, R., Massa, L.; 2011) ever since the rise of the Internet. Despite the overall surge in the literature on business models, scholars do not agree on what a business model is (Zott C., Amit, R., Massa, L.; 2011). Since the 1990’s the concept of the business models has been described, among others, as a conceptual model (Osterwalder, A. 2004; Osterwalder, A. Pigneur, Y., Tucci, C. L. 2005), an architecture (Dubosson-Torbay, M., Osterwalder, A., Pigneur, Y. 2001) or a structural template (Amit, R., Zott, C. 2001). On top of this, not long after the business model gained some ground in the academic circles, it became a widely used term in board rooms by managers, consultants and other commentators of business (Baden-Fuller, C., Morgan, M. S.; 2010) which has led to mixed perceptions of what the fundamental meaning of the term is. As a general prerequisite for the use of any theoretical concept or model is the understanding of the core and meaning of the concept, this vagueness might result in misleading conclusions.

Therefore, an attempt to establish a clearer depiction and idea of the meaning of a business model is essential. Magretta (2002) describe business models as stories – stories that explain how enterprises work. Magretta (2002) builds her idea on the early work of Peter Drucker (as cited in Magretta, 2002) in defining the business model by focusing on how organizations make their revenue by delivering value to the customers at an appropriate cost. Since then, many other researchers have given their insight on defining the term of the business model. Amit and Zott (2001, p. 511) established a slightly more precise definition: “A business model depict the structure, content and governance of transactions designed to create value through the exploitation of business opportunities”. The structure refers to the participants of a transaction, the content refers to the goods exchanged and the governance to the flow of these goods (Casadesus-Masanell and Ricart, 2010). Osterwalder and Pigneur (2010) define the business model as the rationale of how an organization creates, delivers and captures value. The business model is an operational tool expressing the business logic of an
organization (Osterwalder, 2004). Teece (2010) continues by defining the business model as the way a company provides value to the customer and transfer payments to profit.

Timmers (1998), on the other hand, thinks of business models as an architecture for the product, service and information flow, including descriptions of business actors, their potential benefits and the sources of revenue. Dubossos-Torbay et al. (2002, p.3) endorse the “architecture” frame of mind as they highlight the firm’s network of partners for creating, marketing, and delivering value to [...one or several customer segments order to generate profitable and sustainable revenue streams.

The business model not only describes the current business concept, but the possible futures for a firm (Osterwalder, A., Pigneur, Y. 2005). In addition, a complete business model includes not only the detailed and differentiated business concept, but also a financial model, which estimates the value created and how that value might be distributed among stakeholders (Ardichvili, Cardozo and Ray, 2003). Even though some authors disagree on the issue of integrating the revenue factor to the business model (Amit and Zott, 2001) others, as stated previously, include the revenue model to the discussions concerning business models (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Timmers, 1998).

From these depictions and other publications in the recent literature a clear trend can be acknowledged and categorized into four separate factors (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Timmers, 1998):

1) Product/Service
2) Customers
3) Infrastructure
4) Financial aspect.

The first factor includes the value proposition (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002; Magretta, 2002; Morris et al. 2005) which refers to the value the company can offer the customers through their unique capabilities (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002; Magretta, 2002; Amit and Zott, 2001; Hedman and Kalling, 2003). According to the literature, this value is usually delivered to the target customers.
These customers can be identified through *customer segmentation* (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002; Magretta, 2002; Amit and Zott, 2001; Hedman and Kalling, 2003) which is the first element of our second area of business, *the customers*. The literature highlights two main areas of interest in customer segmentation, the target market and scope (Aziz, S. A., Fitzsimmons, J. R., Douglas, E., 2008). The target market refers to the group of customers who the company recognizes as current or potential customers while the scope determines to the variety of segments the company attempts to deliver their offering. The determinants may concern local or international customers, the type of customer or the type of market chosen (broad vs niche) (Morris et al., 2005). *Channels* are methods for delivering value which include communication, sales and distribution channels with external stakeholders (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002; Magretta, 2002; Amit and Zott, 2001; Hedman and Kalling, 2003). Our section dedicated to the customer also examines the customer relationships formed the segmentation and channels, and which are established to guarantee a sustainable and successful future for the company (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002). Dubosson-Torbay et al. (2005) argue that by getting a feel for the customer a company can discover new profitable business opportunities and valuable customer segments which in return advance the efforts of the company.

Next commonly referred business area in the literature is infrastructure and its management (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002; Magretta, 2002; Amit and Zott, 2001; Hedman and Kalling, 2003). The infrastructure describes the value system configuration (Gordijn, Akkermans, van Vliet, 2000) for the value delivery which includes the company *resources* and *assets*, and *networks* (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002). Osterwalder (2004) recognizes four key categories that summarize all essential resources for a company to create sustainable value: *human, intellectual, physical and financial*. Secondly, the networks allow companies to optimize their operations and reduce risk of a business model (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Osterwalder and Pigneur, 2002). The networks allow companies to focus their capabilities and resources to their key activities (Osterwalder, 2004). This also shows the
interconnectedness of these elements and highlights the fact that a company can’t function properly without allocating resources and effort to every element as the company can only offer as much as their weakest element allows them.

The final area distinctively recognized in the literature is the financial aspect (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Timmers, 1998; Magretta, 2002). Profit is generally formed as the difference between the revenue and the costs of the operations. Therefore, the first element recognized in the literature is the **revenue** (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Timmers, 1998; Magretta, 2002). Revenue is the monetization of the value delivered to the customers (Dubosson-Torbay, Osterwalder and Pigneur, 2001). A firm’s revenue can be formed by multiple different methods. These methods will be covered more in-depth later during the analysis. As mentioned previously, the other element is the **cost structure** (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004; Timmers, 1998; Magretta, 2002). The cost structure of a company is, in general, formed from unscalable fixed costs and scalable variable costs (Osterwalder, 2004). In addition, costs can be affected by economies of scale and scope (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, 2004). **Economies of scale** are incorporated with the advantages from ordering or producing increased amounts of products. The average unit cost goes down as the fixed costs are divided between a larger number of products. The **economies of scope**, on the other hand, incorporate complementary products or businesses that allow the company to gain costs advantages.

### 2.2 Framework for the analysis

Dubosson-Torbay et al. (2001) introduced a business model framework for electronic business. The model highlights four similar business areas: **the product/service, the customer, infrastructure and the financial aspect** (Dubosson-Torbay et al., 2001). This model is used as the foundation for our analysis. For this framework to fit our research, however, I have replaced the key elements in these business areas with ones compiled from the literature and articles that best fit the examination of the video game industry (Dubosson-Torbay, Osterwalder and Pigneur, 2001; Osterwalder, A. 2004; Osterwalder, A. Pigneur, Y., Tucci, C. L. 2005).

For the product and service component we will be focusing on the **value proposition** from the **value creation process** perspective rather than the original product and service fit perspective.
Therefore, I have combined this as *the offering* for the customers, which is our first section of the analysis. The target customer analysis is moved to our second section, the customer. This section focuses on the segmentation of the customers and how to deliver the value proposition to the segmented customers. Our third section, *the infrastructure*, focuses on the key resources and networks enabling the value creation process. In this section our model excludes the examination of key processes and activities as I did not find them as significant as the other elements in the value creation process. Our analysis concludes in the *financial viability* section, which includes the same elements as the fundamental framework. Even though the framework introduced by Dubosson-Torbay et al. (2001) was targeted towards eBusiness, it did not cover all essential factors affecting the value creation process in the video game industry.

### 3. The Analysis of the Video Game Industry

#### 3.1 The Offering

The value creation process for a video game company includes a large variety of somewhat unique *value propositions*. Before we dive in to the different propositions we must define the value creation environment in the video game industry. Firstly, the value in video games is created through experiencing the product, or service, by using it. Vargo and Lusch (2004) argue that created value is not fixed during the development but rather the customers create the value by investing time and resources to experience the potential value offering, the value proposition, and thus creating his/her own value (Normann and Ramirez, 1993). This means that the value creation process has merged into an integrated system consisting of multiple participating parties (Grönroos, 2011). Vargo and Lusch (2008, p.3) enforce this by stating that the customer is always a “coproducer” of value, which in return states that the providing firm is in fact a co-creator of value itself. Normann and Ramirez (1993) continue that in this situation firms can only give suggestions on what kind of value can be created but cannot unilaterally deliver it.
While this might not apply to more traditional corporations, the video game industry is a highly interactive and dynamic industry with multiple active participants. Both parties, the companies and their customers, also have assigned roles for the value creation process and we will discuss the value propositions through both perspectives. In addition, we will view the main value creation methods for the video game industry through these perspectives.

The first element can be examined through an example. Half-life is a first-person shooter game released in 1998 and the original value proposition offered by the developer realized when the user started playing the game. However, like in many cases today, the developer or publisher have allowed players to utilize a development kit to modify the game. This was the case for Half-Life as well and, for the surprise of many, a highly popular game called Counter-Strike was created as a modification to the original game.

Another popular modification method used in games is an in-game development tool. Little Big Planet is a console game released in 2008 and became widely popular due to the built-in level creator -tool. This allowed players to utilize their own creativity to create new levels from nothing and share them with other players in the community. Gidhagen and Sörhammar (2011) describe the firm’s part in this kind of value creation process as the inspirator and the facilitator. By allowing the users to modify and customize content on the foundation of their development, it creates unique value for every individual. In addition, this does not require any additional efforts from the company while keeping the revenue stream intact. The freedom of modifying the content also generates valuable information for the developers which they can utilize in future projects. The information and other benefits form these operations reflects to other aspects of business and these will be cover in their individual chapters later in this paper.

The value of information from the users can be detected from the emerging popularity of Beta-testing video games. Beta-tests are done by allowing a group of users to play an unpublished game and gathering personal feedback regarding the improvement points within the game. The developers adjust the game based on the feedback to deliver the value the customers are looking for. The development companies facilitate the users with content on which they can experiment, explore, and comment on the factors that need improvement (Gidhagen and Sörhammar, 2011), which ultimately results in unique value for every customer.
In addition, many companies enforce the community members to help others solve problems regarding the games or other related questions. Companies accomplish this by having engaging and interactive community managers who offer real-time help and host community events for creative ideas and socializing purposes. Engaging with the customers increases in return their willingness to help improve the game and this enables the community managers to gain valuable information of the customer requirements (Gidhagen and Sörhammar, 2011). It creates a value creation circle that generates value for the customers through engagement and interaction.

3.2 The Customer

Segmentation

The video game industry serves a large variety of players with different needs, interests, actions and expectations. For game development companies to deliver the value to the right target group they must understand and define the different groups they are engaging with. This is not, however, a simple task due to the digitalization and globalization of the industry and the entire world. Customers are more accessible, and the regional restrictions are diminishing. In addition, the growing trend for game developers is to create games either for a large group of people, for example educational games for classrooms, or for example, online games without specific target age range. As the overall significance of demographic and geographic factors are decreasing, new methods for targeted marketing and sales efforts have risen. These factors focus on the customer loyalty and commitment, their consumption behavior, needs and expectations.

The very top-level division can be seen between the different genres. For companies to supply the players with the content and features they desire, they must segment their customers by engagement (Perez, 2018). Perez (2018) continues by stating that this engagement allows the companies to gain information from the customers and create personalized and relevant content which give a strong perception of value. This segmentation by engagement can be done through three factors: frequency, consumption and competitiveness (Perez, 2018).
Frequency refers to how often players log in to a game and how long do they play per session on average and is significant as the sales and marketing efforts vary between these player groups. Frequency is a significant segmentation tool especially for mobile games. Take FarmVille, a social network game developed by Zynga in 2009, as an example which was accessible through Facebook. Zynga uses a system of daily activities to track the frequency of log ins for every player. This system allows players to collect daily in-game currency which allows a player to progress further and faster in-game. With this information the companies can direct specific offers to the group of players that will gain the most value out of it. For the more frequent players the offers can include sales on in-game currency or various seasonal bundles as they are the most likely to be willing to pay for seasonal products. On the other hand, new, passive or returning players can be attracted through free gifts or cheaper boosters to further them quicker and allow them to experience the full content of the game. Offering free gifts can seem as a loss, but it is a small price for gaining more active and less price sensitive players.

Another example is a multi-platform game called Hearthstone, that is an online card game developed by Activision-Blizzard in 2014. They utilize the similar tool, a daily quest system, with which they track the activity of players. The quests usually require a certain amount of games played per day, so it allows the monitoring of player frequency and the duration of the average game session. As they focus mainly on seasonal extension as new content the more frequent players are offered large bundles of card packs for a reduced price when a new expansion to the game is released. This would not be as effective for new or passive players as they would most probably not be intrigued to spend large amounts of money on a game they hardly play. However, the more passive players are offered a few free seasonal card packs or reduced prices on small starter -bundles, which do not require large investments but allow them to further themselves in the game.

Closely related to the previous factor is consumption. The emerging monetization trend in the video game industry mostly circles around in-app purchases. Like the example companies in the previous examples, this means purchasing additional content, that may or may not give you actual advantage in the game. The monetization models will be covered in detail during the Financial viability section. The purchasing amounts and frequencies of a player allow the companies to time their offers correctly to keep the players engaged and the revenue stream
constant (Perez, 2018). In addition, the consumption gives information on the needs of the players. The companies may create bundles and offers that include just the right content for each player and create the maximum value. Like frequency, the consumption factor is utilized both in the mobile and console/PC markets and in multiple different genres. In addition to the previously mentioned example, MOBA games like League of Legends and shooter games like Fortnite largely rely on the in-app purchases as they are otherwise free-to-play games, so defining the target segments is crucial.

Finally, the competitiveness of the players divides the expectations and needs towards the development of the game. Most of the largest game genres (first-person shooters, MOBA games and RTS games) have a large competitive player base (Statista). As these games form most of the player base, their needs and expectations have a large impact on the growth possibilities of a game. However, majority of the population who play video games play them casually. Casual gamers generally play a couple times a week for entertainment or to pass time. They are not invested to any game and they belong to the customers who avoid spending money on the in-app purchases or any additional content. In addition, they form a different kind of community that consists of a wide demographic of people.

Then we have the competitive gamers. Firstly, their needs differ from the casual players as they look for balance, competitiveness and the experience of growing and improving oneself within the game. Competitive players look to push themselves to the limit and beyond that, while they do not necessarily enjoy it all the time. The amount of competitive player has risen in the past decade as the Electronic Sports scene has grown simultaneously. Competitive players can be juxtaposed to players on any competitive sports team, while the casual gamers go out to play with a group of friends. This extensive description tells us that video game companies must consider both types of player’s needs if they operate with games within competitive genres. For example, Overwatch is a team-based first-person shooter game developed by Activision-Blizzard. It offers a quick casual game mode where players can just jump into a game and start playing. In addition, they offer multiple alternative arcade game modes. On the other hand, they have strived to create a competitive mode with a realistic ranking system. It queues players against others of the same skill level which makes the games balanced. They update the games to fix any unnecessary bugs or unbalanced content pointed
out by the players. Activision-Blizzard has considered both of their target segments and their requirements to keep them satisfied and, to deliver the value they are expecting.

Channels

With the customer segments defined another challenge emerges; how to deliver the value to the end users. According to Dubosson-Torbay et al. (2001), a company can deliver the value their offering provides either by direct or indirect routes. We will discuss both physical and digital distribution channels. In addition, we will cover the main communication channels used by video game developers.

Firstly, the indirect distribution channels consist of three participants; a developer, a retailer and a customer. It consists of two separate transactions: the retailer buys a game from a developer and sells it onward. The hard copies can be bought from brick-and-mortar stores, like GameStop, or online, like CDON.com. However, due to the digitalization and the rise of online sales popularity, the demand for hard copies is decreasing rapidly. Take Joel Riplie, the owner of a video game retail business since 1985, as an example. Not more than 10 years ago his business was booming and operating with 15 different store locations. Since then he has closed most of his stores due to the rise of large corporations and digital distribution. “I give my retail business five to 10 years”, he said for an article for Polygon (Castillo, 2017).

Secondly, we have the major indirect distribution channel, the platforms. They operate in a similar fashion like the online retail stores except the copies they sell are in digital format and can be downloaded straight the computer, console or mobile device. The most recognized platforms include Steam for PC games, Play Station store, Google Play and Apple store for mobile devices. The favor of these has increased mainly due to the accessibility of the games and how easy they are to use. You have instant access to any game desire and can download it to your device without the need to store physical copies. The memory is stored within the hard drive of the computer and not on a remote breakable disc. The downside to this, however, is the fact that you cannot resell them. In addition, they are bound to your account and the sharing capabilities of the games is extremely limited. For companies, however, the digital distribution is a significant cost saver due to the scalability. This will be cover later in more detail.
Lastly, there is the direct distribution method. This means integrating distribution to company operations. Activision-Blizzard is one of the largest companies utilizing integrated digital distribution. They have developed their own platform for distributing their content. This allows them to organize their presentation of the content and make the access to their games more user-friendly. You have an account which connects the games and media published by a single developer all together. The company can manage their customer relations through their own communication channels and link them into their games. For example, Epic Games, the creating company of the trending game Fortnite, uses their platform not only for publishing their games, but to engage with their players through direct communication or linked social media. This increases customer loyalty and the respect towards the brand (Dubosson-Torbay et al. 2001).

Distribution channels are no the only channels through which value is delivered. Communication and interaction with the customers, as highlighted in this paper so far, is important for many reasons and therefore a practical channel of communication is established. In addition to the communication done through their platforms, many companies have accounts on nearly every large social media, including Facebook, Twitter and Instagram to name a few. This allows companies to gain valuable information effortlessly. On the other hand, the customers gain real time updates on the development ideas and new content.

Another way of communicating is through various forums hosted by the development company. Customers may open discussions with specific topics or addressing certain problems and gain quick responses from the developers as well as other active members of the community. This increases engagement with the customers and creates a feeling of social cohesion within the community. In addition, more emerging channels include community voice chat applications. One growing voice communication application, called Discord, is a great example of a place where players can find fellow players, talk to company representatives and game developers, and this way improve the community overall. Bidirectional communication is one of the most essential factors in the value creation process for the development companies and therefore it has a high hierarchical position.
3.3 The Infrastructure

Key Resources and Assets

Key resources describe the most important assets required to make the business model work (Osterwalder and Pigneur, 2010). Grant (1995) distinguishes tangible, intangible and human assets. The tangible resources include the physical and financial assets and the intangible include the brand, patents, copyright and networks (Dubosson-Torbay et al., 2001). In her article considering the key resources in game development business, Patrycja Klimas (2018) identified the most important asset categories based on the monetization model used by the company. She recognizes physical, human, informational, financial and relational resources (Patrycja Klimas, 2018). We will examine these categories applied to the industry in general disregarding the monetization element.

The least critical assets include the physical assets, which consist of the hardware used for the development, the tool software and the physical infrastructure. Even though they are essential for the creation of the value they do not play a key role in the process. They are dispensable and replaceable, which does not make them key resources.

The second category is the financial aspect. This includes the company cash and lines of credit (Osterwalder and Pigneur, 2010). The financial assets are mainly used for further game development and design, employee salary and advertising. These are, in fact, the largest cost elements as you will see later in this paper. During the early stages of life cycle of a development company the inbound cash flows are minimal which makes the financial assets especially important for growing companies. As visibility and customer relationships require large investments to create and maintain, the financial assets play a significant role in the value delivery process. For larger companies’ financial assets allow M&A actions to widen the scope of the operations or to acquire a competitor. Tencent, a Chinese multinational investment conglomerate, is a good example of video game industry M&A actions. They have lately acquired large stakes in multiple game development organizations including Riot Games, Supercell and Activision-Blizzard.

Thirdly, we have the intellectual and informational aspects. The brand of the company represents the values and ideas of the company and its people. A good brand increases the
willingness to commit and pay for their products and decreases the sensitivity to price and value. This means that even though the company does not deliver the same value as before the customers will not immediately switch to another developer. Secondly, the patents and copyrights are another part of this category. In general, it is difficult to patent every part of a game or public domain and it limits the use of viable content for smaller creators which slows the development of the industry. Therefore, many companies have shifted from in-house created software to open-source third party ones. This allows the companies to focus on their core competencies.

The most important asset class according to Patrycja Klimas (2018) is the human resources. Firstly, game development and design are as good as the developers behind it. Ilkka Paananen, the CEO of Supercell, tells: “that the best teams create the best games” (De Rycker, S., 2017). Their teams consist of the top developers on the market (De Rycker, S., 2017). They not only have the know-how of the technical implementation but can pool ideas and use their creativity to think outside-of-the-box. In addition to the technological skills they are familiar with the marketing and business side of the company’s operations. They have a clear idea of what the customers want and know how to engage with them efficiently. Also, other companies value these kinds of traits on their employees as the human capital is the factor that separates the development companies from each other in the industry today.

Secondly, the people make the culture of the company which radiates from the inside to the outside to the stakeholders. The culture can also be seen in the hierarchy of the companies. Many fresh video game companies are low hierarchy and are more ad-hoc. They consist of teams created for various projects. The members have usually almost complete responsibility for their own games and the monitoring is significantly lower than before. Therefore, the human capital is the most important part for the video game companies.

**Networks**

The networks define the various partnerships a company has formed with external organizations to allow them to deliver their value proposition and how the value creation process is distributed among these players (Dubosson-Torbay et al., 2001). As will be defined later, the shrinking transaction costs allow companies to integrate their operations vertically more easily than before (Dubosson-Torbay et al., 2001). The integration can be performed in multiple ways depending on the situation; strategic alliances, joint-ventures, long-term buyer-
supplier partnerships, acquisitions or other partnerships (Dubosson-Torbay et al., 2001). The integration enables the companies to focus on their core competencies which is a prerequisite for delivering the value proposition.

Strategic alliance is one of the more common types of co-operations within the video game industry. It is an arrangement where two companies decide to share resources to undertake a specific, mutually beneficial project. Tencent, as introduced before, has a large portfolio of strategic alliances with various companies. There are many reasons why these alliances can be mutually beneficial for video game companies. Firstly, optimizing their operations through focused operations. Every player in this alliance can focus on their expertise. Secondly, they can benefit from the services and status provided by the other party: “The alliance will enable us to couple our broad range of internet service capabilities to Square Enix Group’s superb creativity and provide our customers with unprecedented content experiences on a global basis,” said Steven Ma, senior vice president of Tencent Group (Morris, C., 2018). Both parties can benefit from the knowledge, networks and resources of the other party. The alliance can open new opportunities in terms of new markets or wider scope of operations. For example, Tencent has opened a route to the Chinese markets for the mobile game developer Supercell, after Tencent bought the majority stake in the company.

To be more precise, this kind of alliance is called an acquisition. When a firm purchase more than 50% of another company’s shares, it becomes a majority owner, and acquires the company. For gaming companies, and many others, there are two main drivers for acquisition; risk reduction and financial performance (Weubker, J. E., 2015). The risk reduction comes from the diversification of the company’s portfolio. Through an acquisition a company may acquire new resources, staff or wider product/service range. The wider the product and service portfolio the smaller the impact of fluctuation in the demand or price of a certain product or service. The financial benefits emerge from synergies. Synergies emerge when the performance of two companies combined is greater than the sum of them individually. This performance can be achieved from increased revenue, optimized processes, reduced costs or general efficiency. The benefits do not end there, however, as companies may pursue wider regional or demographic reach, blocking competitors or securing talented personnel (Weubker, J. E., 2015).
We can examine the reasons through the example of Activision-Blizzard and their acquisition of King. Through the acquisition Activision-Blizzard widened their demographic reach as social games are largely more popular within the female demographic than other games. Secondly, their offering and platforms got diversified. They could now reach hardcore and casual gamers on multiple platforms (Weubker, J. E., 2015). In addition, as will be defined later, their monetization model got diversified from pay-to-play into free-to-play. Due to the rise of mobile gaming and free-to-play revenue models this was an answer to the competition as well.

3.4 The Financial Viability

Revenue Model

Revenue stream and cost structure create the foundation for financial viability and therefore requires thorough examination. The monetization models in the video game industry vary greatly and multiple combinations of these models exist. However, these combinations are composed of three main models.

Firstly, we have the paid games. This corresponds to any physical product or service where you purchase it by paying a fixed amount after which the owner rights shift from the seller to the buyer. This is known as the premium model. This model guarantees profits for the copies sold as the monetization occurs when the owner rights shift. This model is common amongst single-player games as they have limited content and the value is gained solely through experiencing the game. Other monetization methods wouldn’t suffice as will be discussed shortly.

However, this model has limits. The popularity of the model is decreasing due to the increased competition of other models (Davidovici-Nora, M., 2014). This decline is accelerated not only due to the rise of other models but due to the limited reach of the paid games. The limited reach refers to the preferences of the customers (Davidovici-Nora, M., 2014). The willingness to pay derived from the value gained through the purchase must equal to the price of the game. As stated previously, new models have emerged offering alternative payment methods and value propositions. This lowers the customers willingness to pay as they might get similar value for a cheaper price.
The **subscription fee** is the second monetization method utilized by video game developers. Subscription based games enable players to try the game for a short trial period, usually for a week. Alternatively, a player might be given access to a limited amount of content for free and may continue to play it for free. The full content of the game will then be available through a monthly or annual payment. This method emerged as an alternative model to lower the barrier to purchase a game as the customers could experience the value before the purchase. In addition, the smaller monthly payments also lowered the barrier of purchase as the one-time investment decreased from a larger fixed sum to the smaller monthly fee.

On top of this, a new value creation method emerged. The online games created value through the network effect (Shankar, V., Bayus, B., L., 2002). The more players the game had the more value it generated to the other players. The value gained through the network effect reflects to the revenue received by the company as well. As stated earlier in this paper, video game companies attempt to engage with their customers to enforce loyalty and co-created value, it unlocks steady revenue streams through long lasting subscriptions. The same kind of value creation through the network effect does not work in single-player games as players do not benefit from others playing the game.

Activision-Blizzard created a massive online multiplayer role-playing game called World of Warcraft in 2004. The monetization of this game shows an example of a combination of the two former models. To download the game players must pay a fixed one-time amount. The access to the content is then enabled through monthly subscriptions.

The final alternative is the **freemium model**. This model gives players full access to the game for free. The monetization emerges from two main sources: **in-app purchases**, also known as **microtransactions**, and **in-game advertisements**. Microtransactions consist of purchasing in-game supplies with real world currency. Freemium games generally offer in-game customization possibilities by purchasing various cosmetic items for your character. This monetization model is widely used across different platform like PC, mobile and console. As an example, we can examine the online Battle Royale game Fortnite. The in-game shop offers countless cosmetic items for players to purchase. These items do not give any advantages to players, however, they simply let players to express themselves and make them distinctive to other players. This is because enabling the purchasing of in-game advantages would reduce the player base as the target segment would only consist of players willing to spend
tremendous amounts of money on these advantages and would take away the balance of the game.

Some games, on the contrary, do allow microtransactions to affect the performance of a player in a game, in other words, by enabling the purchase of in-game advantages. Take Hearthstone as an example, according to Daniel Friedmann (2017) players generally must spend around 400$ a year to remain current in the game. Players can purchase randomized card packs to acquire better cards which would take up to hundreds of hours of playing to acquire otherwise. As these cards are attainable through other methods than microtransactions the revenue model generates a profit.

*The monetization for microtransactions* is executed through a three-step model (Alomari et al. 2016) following the well-known purchase (ARM) funnel theory developed by E. St. Elmo Lewis (1898). The ARM (Acquisition, Retention, Monetization) funnel theory helps us understand the idea of the freemium model.

In contrary to the other models, the usage of this model does not focus on the initial revenue. The acquisition phase includes acquiring new players for minimal costs. Enabling access to the full content for a lower price widens the reach of the game as it generates value to players for no cost other than opportunity cost for their time. Video game companies use incentives to attract new players with free in-game supplies or offer existing players bonuses for inviting new players through social network to experience the game. The model has a widened reach to the more price sensitive players and therefore decreases the threshold for new players to take up the game. Similarly, to the previously mentioned games, these games rely highly on the network effect (Pahwa, A., 2017), which increases the incentives for other players to widen the community by inviting new players to the game. This effect generates costless value to the companies as well as the players. Even though this stage does not generate significant revenues, it builds the foundation for future growth and profit.

The second stage, retention, focuses on engaging with the paying players and efforts on how to keep them interested in the game. The more often the players return to the game the bigger the chance of them purchasing in-game supplies. Developers use in-game incentives to attract players back, even daily. Activision-Blizzard’s card game Hearthstone uses daily tasks, or quests, that require players to play a certain amount of games to get the daily reward which
increases their progress in the game for free. In addition, they use special bonuses to attract old players back to the game.

The last phase is monetization. As Seufert (2014) states that only 5% of the players of the freemium model are monetized, it is essential for the companies to attempt to convert non-monetized players into paying players. The rest of the players are only part of creating costs for the companies. The profits are then funneled to the acquisition of new players through various methods like advertisement and conventions.

In-game advertisements compose the second part of the monetization of the freemium model. These advertisements should not be confused with advertisements promoting the game itself as they don’t generate direct revenue. On the other hand, in-game advertisements allow other companies or developers to promote their games within the game. This generates commission from the shown advertisements. While microtransactions were widely used across all platforms, the in-game advertisements are focused on mobile applications and therefore discussed separately.

There are two types of in-game advertisement; non-rewarding and rewarding. In non-rewarding, players face advertisements at certain intervals while playing the game. For a player to avoid the advertisements they must pay a fixed amount or a monthly fee. This way the companies allowing in-game advertisements gain revenue whether the players watch the advertisements or not.

The rewarding allows players to gain in-game supplies by watching an advertisement or downloading the advertised game. The advertisements do not emerge at certain intervals but rather create incentives for players to watch them through in-game benefits.

Cost Structure

The cost structure is the second component of generating profit. Costs incur when companies attempt to create, market and deliver value to their customers (Dubosson-Torbay et al., 2001). These costs are generally composed of two time-span dependent parts; the variable and fixed costs (Osterwalder and Pigneur, 2002). Variable costs are considered as costs that may change during a certain predefined time-period, while the fixed costs stay constant.
According to an article published by the software development company VironIT (2018, June 19), game development is mainly carried out as projects. The length and scope of the project may vary depending on the complexity of the game (Yuri, S., 2018). Therefore, the costs depend on the complexity of the game as well. Of the costs considering game development, VironIT highlight the main cost determinant; creation and development costs, intellectual property costs and marketing costs.

Creation and development costs consist of the salaries of the game development team and the physical infrastructure, like hardware and real estate, enabling the creation of the game. Otherwise these are considered fixed costs as they are defined before the start of the project. For example, the office spaces are booked, and the team is assembled beforehand. However, as the costs are time-dependent, they might change during the project, for instance when the time estimate for the project gets prolonged for unknown reasons.

Secondly, like stated before, the development of the game continues after the creation of the game by co-creation with the customers. During this time, both cost determinants are considered variable, as there is no predefined time-span for the development. The variation depends on the complexity of the requirements presented by the customers. If they require large changes or the company requires changes the costs will deviate in return.

The intellectual costs are composed of software and brand licenses. This includes the external software and data needed for the development. In addition, these costs include brand and copyright costs for the developed game. As these are prerequisites for the development they are considered as fixed.

Finally, there are the marketing costs. They are more vaguely defined and therefore considered as variable costs. The costs vary depending on the customer segments, the target reach and the stage of the development. For example, the early stages of development do not require as much marketing efforts as the later phases. In addition, if the customer segment is familiar with the channels of the company, they can focus their efforts on their own platforms which reduce costs. On the other hand, for new emerging companies marketing costs can form the majority share of total costs as exposure is important for growth.

In addition to the main cost determinants, there are two factors for cost minimization; economies of scale and economies of scope. Economies of scale occur in many instances of the
development. Firstly, the software purchased for the development can be utilized in future games after purchase. On the other hand, companies that create their own software engines to run their games can utilize the economies of scale in a similar manner. Once created the engine can be used without a limit. The creation costs are then divided between multiple projects. Secondly, the distribution of the games, as discussed in the corresponding section, is cost effective. Whether the company chooses to distribute through external platforms or their own, after the initial costs the distribution become practically free. Therefore, the production or download of a game theoretically reduce the cost of a single product as the total costs are divided between more products. In addition, economies of scope enable synergy through the distribution channels as they support multiple games created by the company. This shows that the video game industry gains synergy advantages from the development and distribution of games through both factors.

4. Conclusion and Discussion

Our analysis enabled us to gain a comprehensive overview of the business models in the video game industry. We started by defining the business model framework and then utilizing it to examine the fundamental aspects of the business models in the industry. From this analysis, however, a couple of factors emerged which I found especially important for this specific industry.

According to the literature the concept of the business model describes how a company creates and delivers their proposed value to the customers (Dubossen-Torbay et al. 2001; Osterwalder and Pigneur, 2010). As the value proposition in this industry is more value co-creation centric, it is essential for the company to facilitate this process. Firstly, for a company to enable co-creation they must establish healthy relations with their customers. Therefore, the type of customer engagement in the industry plays a crucial role in the value delivery process. Facilitating the creation of value exactly as the customers want unlocks additional value which was previously ignored. In addition, the role of the company as a facilitator rather than the creator will increase. This can be seen from our analysis as when customers get used to the idea of co-creation, they will not go purchasing games without this benefit as they generally cannot deliver similar value for the same price. This should not, however, be taken as a constant as certain people, like collectors, might value other attributes over the general population. The co-creation combined with the increased needs and requirements emerged
through technological advancements makes operating with unsuitable business models impossible. Therefore, this analysis should be interpreted as the current situation of the industry. Adapting to the increased demand not only requires innovative changes in certain aspects but rather on the business model level.

Secondly, the value can be distributed cost effectively through various platforms (Dubosson-Torbay et al. 2001; Osterwalder and Pigneur, 2010). The platforms allow the companies to communicate with their customers through social media and discussion forums in addition to the distribution of the games. As stated in our analysis, this enables the companies to gain valuable information from the customers effortlessly. This, in return, improves the co-creation process by further facilitating the cooperation between the two parties. In addition, the importance of the information channels will increase as the competition increases. The fiercer the competition the less the companies can compete with price or similar traits. Therefore, the companies must have access to the needs of the customer and engage with them to build loyalty and brand recognition which should increase the chances of future interactions and revenue streams.

Thirdly, the companies require the know-how to create the planned value. The human resources compose the most important aspect of the infrastructure (Klimas, 2018). The talented people not only have the skills to implement the ideas, they also can come up with innovative ideas on how to satisfy the continuously shifting needs of the customers. As stated previously, the evolution of the gaming industry is strongly connected to the technological advancements (Ell, 2018). This increases the need for qualified employees create new value. As an example, we can examine the Virtual-Reality (VR) games. This technology opened new possibilities for the video game industry after its emergence to the markets. This raised new expectations that that did not exist previously. In addition to the knowledge of the employees, these people create the organizational culture to facilitate the innovation, another important part of the value creation process.

Finally, for the companies to grow and operate successfully they must generate revenue and gain profit from their efforts. The most recently emerged freemium model (Pahwa, 2017) has enabled the increased reach of the games and therefore, increased the potential of the revenue gain. The emergence of new models and factors for creating, delivering and monetizing the value further implies that the growth of the industry continues, and new
business models will emerge. For example, when the technological advancements enable the companies to optimize their production, development and distribution, it not only increases the profit margin but also allows the companies to explore new monetization methods. This can be seen from the introduction of mobile games. As stated before, many of these are free-to-play games which explored new monetization methods through in-game advertisements which were not in use before. This shows that all the elements of the business model affect each other, and the evolution of the business models requires innovation in all of them.

All in all, this paper attempted to enlighten the concept of the business model from the literature and articles. This understanding was then utilized in the examination of the different sections of the business models of the video game industry and especially its value creation process.

5. Sources


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Johdon tiivistelmä

Tutkimuksen aihe

Tutkimuksen aiheena oli syventää videopeliteollisuuden yritysten liiketoimintamalleihin sekä tarkastella niitä kyseiselle alalle sopivan viitekehyn kautta. Peliteollisuus on kasvanut merkittävästi teknologian kehittymisen rinnalla viimeisen kahdeksan vuoden aikana. Teknologian kehittymisenä tulevasta tulevalla vaiheella tuleekin merkitys maailmanmarkkinoilla kasvamaan. Ymmärtääksemme peliteollisuuden avaintekijät sekä niiden toimintaperiaatteet ja vaikutuksen, on aiheuttaa eritellä yritystoiminnan eri osa-alueet ja tarkastella niiden vaikutusta palioittain.

Tutkimuksen tulokset


Jotta pelien levittäminen asiakkaille sekä information tehokasta saadaan toimimaan, on asiantuntijoiden tarvetta käyttää tarkoituksen mukaan liiketoimintamalleja. Peliteollisuuden liiketoimintamalleja vastaa paljon erilaisia toimintaehdot, joita voidaan pitää käytännön osana työntekijöiden arvioineen. Arvon luominen ja sen säilyttäminen on pelien kehittämisessä erittäin tärkeä. Tulevat pelien kehittäminen, hallinnoillaan käytettyjen liiketoimintamalleja käytetään käsiteltyä erittäin tärkeänä. Pelit kehitetään ja tuotetaan usein yhdessä, eikä valmistajia ole mahdollista käyttää niistä suurimman osan käytöstä.
Tämän tutkimuksen pohjalta peliteollisuuden yritykset kyvenvät tunnistamaan oman liiketoimintansa keskeiset osat sekä hyödyntämään tutkielman löyksiä toimintansa parantamiseen.