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Value Creation with Freemium

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Created by
John Hesseltine & Ruslan Krastev

Supervisor: Veronika Tarnovskaya



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Abstract

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Advisor:	Veronika Tarnovskaya
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Thesis purpose:	The aim of this thesis is to research and clarify the freemium business model and uncover how Internet companies use it for value creation.
Methodology:	Due to the exploratory nature of this thesis, a qualitative inductive method was chosen with a multiple-case design. Unobtrusive measures were implemented and data was collected from public sources.
Theoretical perspective:	Business model theory, Free, Adoption lifecycle
Empirical data:	Case studies on Skype, LinkedIn, Dropbox and Zynga
Conclusion:	Freemium, while a young concept, has proven that it can be profitable to give your product or service away for free. It has many inherent benefits that help it succeed in the digital market and taking advantage of those benefits helps set one business a step above their competitors.

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1. Introduction

Freemium has become a widely used digital business model as it has been notoriously hard to create a profitable Internet service immediately after the “dot com” burst in 2000. The way business had been done was not sustainable and a new method had to be developed in order to progress the service industry on the Internet. During this time, file sharing applications had been created such as Napster in 1999, allowing people to illegally obtain files such as music and movies for free. This sparked a new revolution in the way the Internet worked and people expected that they could get anything they wanted for free, thus making the Internet a place of free things (Anderson, 2009). This attitude of everything is free has carried over into the freemium business model and has developed into what we have today.

Freemium has also grown because there is a new generation of people that have grown up using computers and the Internet throughout their lives and they have the skills and abilities to actually use the technology as it changes because they are digital natives and their lifestyle demands and needs these services (Iglesia and Gayo, 2009).

Freemium has been defined as “the [digital] model where some people pay directly and support many others who pay nothing at all” (Anderson, 2009, p.162). This means that a service is available for free, but has the option for paying and those who do pay, fund the service for those who do not. It has been common to now offer the full product or service for free, but if a user pays for it, they will receive extras that will make their experience better as an incentive to do so.

The reason there has been such a surge in freemium products is the cost of doing business has drastically decreased with the Internet (Anderson, 2009). Storage prices have gone down, making it cheaper for businesses to host more data and data/ bandwidth costs have also drastically decreased which enables massive amounts of data to be sent and received quicker than before. The Internet is evolving with new technology and code, allowing new ways to do things than before and creating opportunities to do things that could not have been done before.

Since doing business on the Internet requires a feasible e-business model that will make the company able to generate profit and increase economic utility (Gordijn and Akkermans, 2001), it is also the Achilles’ heel if not much attention is paid to it. For many companies the

creation of a working business model is the most difficult part, a widespread problem during the “dot com” bubble (Teece, 2010).

Freemium is not right for every business, however. Many companies that have started down the freemium business model path are now out of business. The challenge is to make a service that is in enough demand to have people try it, but to offer something beneficial for the top tier of users, or power users, that entices them to pay for the service.

Some of the most famous companies that became an integral part of our lives and are successfully implementing the freemium business model are Skype - a free voice and video communication software, Zynga - a social network gaming company with millions of users, Dropbox - a web-based file hosting service and LinkedIn - a business-oriented social networking site.

1.1 Problem Formulation

The purpose of this thesis is to research and clarify the freemium business model and uncover how Internet companies use it for value creation. The explanations will be supported by referencing case studies that have been conducted on large, successful companies that have used the freemium business model in order to grow and become industry leaders. Different types of companies use freemium and we would like to look more closely on how the processes within their freemium business models contribute to the process of value creation.

The area of freemium is interesting to study due to its innovative nature and ability to alter already established business practices. It is interesting to research how companies convince their customers to change from free to premium users or in the case of free to play games - to buy virtual items such as swords, shields, helmets, etc. Sometimes, such items do not even provide an advantage for the players and are used for purely aesthetic reasons. We are also interested in the subject, having grown up with the Internet and seeing its various transformations. Freemium is new with little information or research done on the subject (Teece, 2010), which interests us greatly.

Freemium has very little information in regards to the theory. The concept has been recognized by professionals as a viable business model; however there is a lack of research done on the subject of freemium as a digital business model. A rise of successful freemium businesses has been witnessed and we would like to see what makes these freemium

businesses successful. By successful, it is meant the ability of a company to become famous, well-known worldwide and become an integral part of people's daily lives.

This thesis is devised to be informational for people working in the online industry, especially those that are creating a new business. One of the greatest challenges that software companies need to overcome is how to capitalize on their innovations (Niculescu and Wu, 2011). The freemium model is not right for every type of business, but it is extremely advantageous to those that it is applicable to. Internet startups have the hard task of marketing their product and without a way to sample or use the service, potential customers may look away and find an alternative. Freemium allows potential customers to try the whole service with no risk of spending money on a product that they are not happy with.

1.2 De-Limitations

We are choosing to conduct their research on businesses whose products and services exist solely on the Internet. The analysis will be conducted from a web-based point of view, as in how customers are attracted and react to the services supplied by the companies.

Since this paper will focus on web-based products and services, it is limited to the products and services that exist in the digital world only. It is also the natural environment of the freemium business model as pointed out by Wilson (2006). We do not deny the possibility of applying this model in other contexts but researching that would be irrelevant due to the purpose of this paper.

1.3 Limitations of Research

Due to the nature of the subject of freemium and how young the concept is, there are a few factors that we are not able to research. They are as follows:

- Technology
 - We will not be discussing technological advances or setbacks in this thesis. This topic is beyond the scope of the research conducted and the paper will not feature any discussion about how technology affects the freemium business model.
- Customer Retention
 - We will not be discussing customer retention tactics used by the various companies in this thesis.

- Social Media
 - We will not be discussing social media and how it can affect the freemium business model.

- Promotion
 - We will not be discussing how to promote a business following the freemium business model.

1.4 Managerial Implications

The recommendations that are proposed could be utilized by managers of web start-ups and digital content providers who are deciding upon the business model to be implemented. Hence, the decisions will be based on an in-depth research rather than presentiments. This thesis is grounded on business model theory and proposes comprehension of the nature of freemium.

The research examines the freemium model deeply, a term that lacks enough research for formulating a theoretical point of view. Due to the increased popularity of the term itself, its conception is crucial for managers since many of them might have problems understanding it. Since the nature of this study is exploratory, a clear picture of the term will be presented and due to the fact that freemium is still not widely discussed academically, it will inevitably lead to infinite prospects for future research.

2. Theoretical Framework

In this chapter, we will provide the theoretical perspectives in order to create an understanding of the problem. It is essential that there is a full understanding of what a business model is for one to be able to relate freemium to business model theory. For that reason, this chapter starts with literature review on what a business model is. After that, the concept of freemium is explained, followed by a discussion on the building blocks of business models, products and services in the digital world and other relevant theory that we decided to incorporate in order to build understanding of the researched phenomenon.

2.1 The Freemium Business Model

2.1.1 What is a Business Model

Due to the rapid growth of the people using the Internet and its integral part of our lives, business models have been a major point of discussion during the recent years (Rajala et al., 2003; Teece, 2010; Demil and Lecocq, 2010; Ghaziani and Ventresca, 2005). The Internet is the main reason for many new types of business models to become reality (Petrovic et al., 2001).

Despite the fact that there is a considerable amount of research done on business models, there is still no universal definition of the concept as such (Pateli and Giaglis, 2004; Osterwalder et al., 2005; Teece 2010; Zott et al., 2010). Porter (2001, p.73) states that “most often, it seems to refer to a loose conception of how a company does business and generates revenue”.

Osterwalder and Pigneur (2010, p.14) describe a business model as “the rationale of how an organization creates, delivers and captures value”. Its design could be the source of competitive advantage (Teece, 2010; Malone et al., 2006) thus differentiating businesses from one another.

Since most business model definitions focus on the creation, delivery and capturing of value (Teece, 2010; Itami and Nishino, 2010; Zott et al., 2010; Osterwalder et al., 2005), we decided to use the definition in Osterwalder and Pigneur (2010). Hence, the freemium business model will be researched in terms of the above mentioned three aspects.

2.1.2 What is Freemium

Freemium is a relatively new business model that has come about thanks to the Internet and the increased data transfer capabilities that have developed. The core basis of freemium is that the whole product is free for use, but if the user would like a few more options or benefits, they can pay to have them. The majority of the users do not need the advanced version and only power users will be the ones that may consider paying for the product. Many times, the advanced version offers unlimited storage or something along those lines.

The free aspect brings in the customers and helps the business grow via word of mouth. The free users draw in the power users by showing how it is a good service and in turn, the power users pay for the free users to keep using the product. With more users comes more feedback to the developers and they can then use that feedback to create an even better product to suit their users' needs. So while the premium users pay for the free users, the free users help the premium users by providing feedback and bringing in even more users that may pay.

According to Osterwalder and Pigneur (2010, p.96), “the term “freemium” was coined by Jarid Lukin and popularized by venture capitalist Fred Wilson on his blog. It stands for business models, mainly Web-based, that blend free basic services with paid premium services. The freemium model is characterized by a large user base benefiting from a free, no-strings-attached offer. Most of these users never become paying customers; only a small portion, usually less than 10 percent of all users, subscribe to the paid premium services. This small base of paying users subsidizes the free users. This is possible because of the low marginal cost of serving additional free users” (Osterwalder and Pigneur, 2010, p.96).

The following chart illustrates the way freemium works in a simple explanation and shows where the money comes from to keep the service afloat.

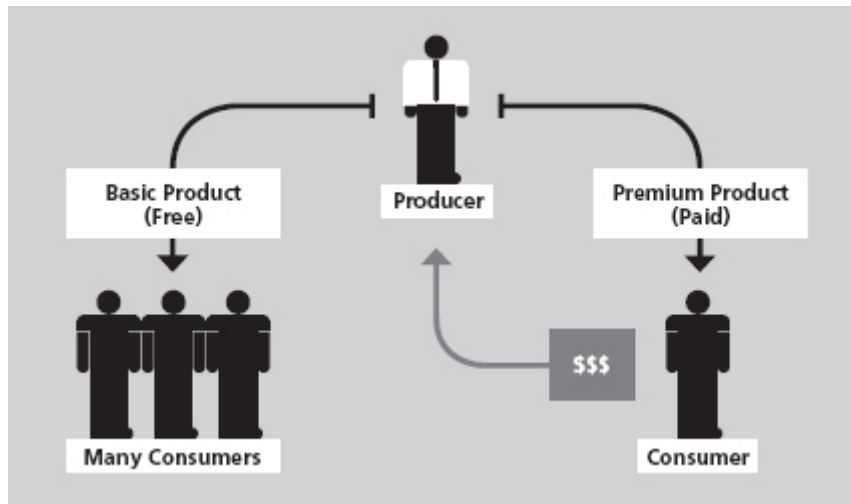


Figure 1: Chart adopted from Anderson (2009, p.24)

Freemium software can instill confidence because the fact there is a free version means that a user can inspect it and try it without any risk of spending money on the wrong product or service. The existence of a free version usually attracts a large community of users that help each other with any problems that may occur during the course of using the software. This is called “mimetic desire” in psychology, meaning that we want to do things that other people do because their decisions validate our own (Anderson, 2009). This is the reason why free in combination with paid works so well - it is applicable to consumers with different psychologies (people with more money than time - usually adults that earn good salaries; and people with more time than money - usually youngsters and people earning less than a minimum wage). Freemium can embrace the full psychology of consumerism (Anderson, 2009).

2.1.3 The Business Model Canvas

Osterwalder and Pigneur (2010) propose a concept called “The Business Model Canvas” which consists of nine building blocks and is applied and tested in many organizations such as IBM, Ericsson, Deloitte, etc. This framework has the potential to become a shared language that allows one to easily describe and manipulate business models to create new strategic alternatives (Osterwalder and Pigneur, 2010). The same authors argue that “a business model can best be described through the nine basic building blocks that show the logic of how a company intends to make money” (Osterwalder and Pigneur, 2010, p.15). These nine building

blocks cover the four main areas of a business: customers, offer, infrastructure, financial viability (Osterwalder and Pigneur, 2010) and can be summarized as follows:

- Customer Segments - defines the different groups of people or organizations an enterprise aims to reach and serve.
- Value Propositions - describes the bundle of products and services that create value for a specific customer segment.
- Channels - describes how a company communicates with and reaches its customer segments to deliver a value proposition.
- Customer Relationships - describes the types of relationships a company establishes with specific customer segments.
- Revenue Streams - represents the cash a company generates from each customer segment (costs must be subtracted from revenues to create earnings).
- Key Resources - describes the most important assets required to make a business model work. Key resources can be physical, financial, intellectual, or human.
- Key Activities - describes the most important things a company must do to make its business model work.
- Key Partnerships - describes the network of suppliers and partners that make the business model work.
- Cost Structure - describes all costs incurred to operate a business model.

The following tool resembles a painter's canvas, preformatted with the nine blocks, which allows one to paint pictures of new or existing business models. The Business Model Canvas works best when printed out on a large surface so groups of people can jointly start sketching and discussing business model elements with Post-it notes or board markers. It is a hands-on tool that fosters understanding, discussion, creativity and analysis (Osterwalder and Pigneur, 2010).

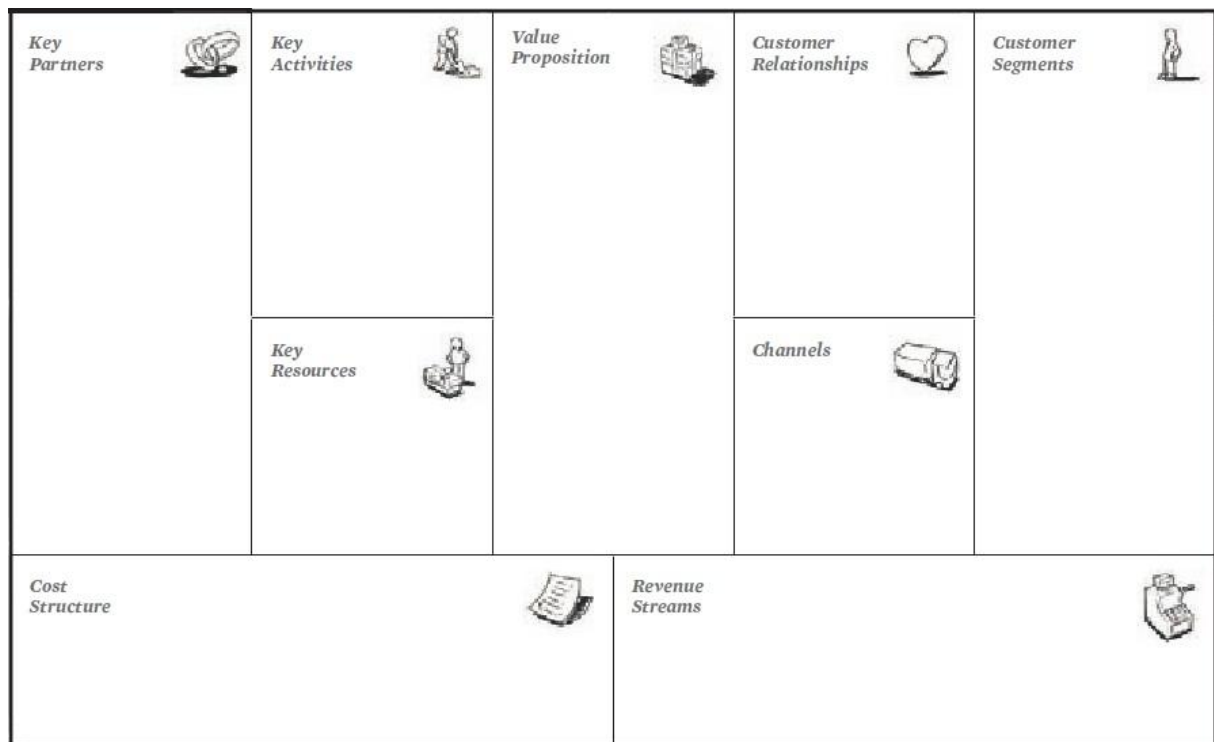


Figure 2: Model adopted from Osterwalder and Pigneur (2010, p.44)

The assumption of this paper is that freemium will have a strong impact on any decisions that affect the building blocks of the business model. For the purpose of this thesis, we will take a closer look at some of these building blocks.

For companies that use the freemium business model it is crucial to segment their customers - who pays and who gets the service for free. If the companies fail to do so, they might end up trying to sell their products or services to customers that are not willing to pay.

Another unit of the business model that is worth researching is the channels chosen. They have to have low costs since freemium means giving a product or service away for free.

Nevertheless, customer relationships is a key building block when it comes to freemium. First of all, freemium companies must be able to convert enough users from free to paid customers. So, acquiring and retaining customers must be cheap. Customer relationships should be automated as well - the more automation, the more free users.

Furthermore, partnerships are extremely important since companies create alliances to optimize their business models, reduce risk or acquire resources. It would be interesting to research how Internet companies create partnerships to help them succeed.

Another block that we feel worth researching is value propositions - how the freemium companies create value for their customers?

The last building block that we will take a closer look at is cost structure. One prerequisite for using freemium is low operational costs that will make it up for giving the product or services away for free.

2.2 What is “Free”

The saying “there is no such thing as a free lunch” has been relevant for a long time and still remains so in the tangible context. There has always been a catch with anything free.

“That means that one way or another the food must be paid for, if not by you directly then by someone else in whose interest it is to give you free food. Sometimes people are paying indirectly for products. That free newspaper you’re reading is supported by advertising, which is part of a retailer’s marketing budget, which is built into its profit margin, which you (or someone around you) will ultimately pay for in the form of more expensive goods. You’re also paying with a bit of your time and, by being seen reading that newspaper, your reputation. The free parking in the supermarket is paid for by the markup on the produce and the free samples are subsidized by those who shell out for the paid versions” (Anderson, 2009, p.19)

The digital market has completely changed the way free works now. A person can actually get something for free. They are already paying for their Internet and can search for anything on a search engine and with a high probability, be able to get what they were looking for, for free. The concept of free is actually true on the Internet, with no hooks to wrangle the user into paying for something they did not want to with either money or time.

There is a difference between what humans consider free and that which we consider gratis, or actually really free without having to pay. Free as in *gratis* means that using the service, product or software does not cost any money, which is different from Free as in *Libre*, or the open software that the creators encourage people to share and distribute (Anderson, 2009).

There is a lot of software available that is both types of free, costing no money and allowing all to distribute, but there are also very many gratis free but non-libre free software and services available as well. It is important to distinguish between the two types of free to understand how the business allows their product to be used.

Many programs and software that you can find online are using the GNU General Public License (GPL). The license, which is free to use, states in the preamble what they define as free:

“When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs and that you know you can do these things.” (Gnu.org, 2007, online)

This allows developers to be protected when offering their product for free and shows the *libre* of the software. People that use the software may complain that the software gave them a virus and try to sue. But by using the free GNU GPL, software developers are safe from any legal repercussions that may arise due to end user misuse or ignorance.

The free used in the freemium model is about the *gratis* free. It does not cost the user any money to use the product unless they want to pay for a few additional features. Freemium businesses and services do not want to be *libre* free, as they lose a bit of control over how their product may be distributed, or in some cases, even coded. The *libre* free can be dangerous for businesses, as there is always the chance that a user may run into difficulties with the software that there would not have been if they downloaded it from official release sites.

Because freemium practicing businesses are supplying a digital product or service, they need to make sure that their users are getting the best experience they can with the product. If the product were to be *libre* as well as *gratis* free, the developers lose a level of control over the product and cannot ensure that everyone is using official software that the developers support.

2.3 The Penny Gap

Anderson (2009) argues that charging a price as low as one cent can have a deep impact on people’s purchasing decisions even though that one cent does not really mean anything to us economically. The reason for the power that one cent has on us is the fact that it makes us take a decision. We have to decide if we really want that particular product or service and this is a deterrent itself.

“It’s as if our brains were wired to raise a flag every time we’re confronted with a price. This is the “is it worth it?” flag. If you charge a price, any price, we are forced to ask ourselves if we really want to open our wallets. But if the price is zero, that flag never goes up and the decision just got easier” (Anderson, 2009, p.45).

Basically, the introduction of price to the equation creates a mental barrier for most of the people and they are not willing to cross it. On the contrary, free facilitates that decision and increases the number of people willing to try a particular product or service. Free compensates eventual revenues with the possibility of reaching critical mass (Anderson, 2009).

Ariely (2008) described an experiment that involved selling two kinds of chocolate - Lindt truffles for 15 cents and Hershey’s Kisses for 1 cent. The customers behaved rationally since they realized the difference between quality and price and 73% chose the Lindt truffles and the other 27% the Hershey’s Kisses. After that the prices of both treats were lowered by 1 cent thus the Hershey’s Kisses become free and the Lindt truffles 14 cents each. What was interesting was the fact that 69% chose the Hershey’s Kisses instead the Lindt truffles even though the price/quality ratio was still the same - both treats were still priced 14 cents away from each other. It was just that the zero price introduction completely changed the customers’ preferences.

Anderson (2009) mentions about his participation in a conference at Google where they offered free snacks - everything from healthy bars to jelly beans. At the end of the day, he reports, there were leftovers and half-eaten bags of snacks everywhere. Anderson reckons that the picture would be far more different if Google charged even a cent for all those snacks - much less would have been consumed and most of the people would have finished what they bought. The people at the conference would have faced the decision whether they really wanted snacks and if they were willing to pay for it.

This case illustrates one of the negative implications of free - people do not care about things they do not pay for. Free may encourage gluttony, increased consumption, greed and waste generation. People seem to take stuff not because they want it but just because it is there for free. In contrast, charging even a very low price can make people behave much more responsibly. In short, free is the most efficient way to reach critical mass for a product or a service (Anderson, 2009).

2.4 Difference Between Products and Services in the Physical and Digital World

According to Peppard and Rylander (2005, p.2), “in the physical world, products and services are traditionally distinguished from each other on the basis of tangibility and intangibility; indeed, services are often described as intangible products. In the virtual world of the fixed and mobile Internet, however, this distinction is no longer appropriate: both products and services become intangible”. This is so, because the Internet is rather a new medium than technology that offers the possibility for conducting business in an entirely new environment. Many companies have transferred their products and services from the physical to the digital world but experience shows that these undertakings are not simply a digital duplication of the physical world (Peppard and Rylander, 2005).

In the physical world products are usually described as tangible and services as intangible but with the establishment of the Internet as a medium for conducting business products and services both became intangible (Peppard and Rylander, 2005). In order to be successful, companies have to be aware of the characteristics of products and services along with consumer behavior in the digital world. According to Peppard and Rylander (2005), the absence of physical attributes on the Internet has the most profound effect on consumer behavior. Namely these attributes are playing a major role in the decision-making process and their inexistence affects trust, brand-building and the creation of customer relationships. For instance, many banks that operate online failed because of the trust deficit between them and their customers. In contrast, in the physical world, trust in banking is influenced by the big branch offices and the knowledgeable person who is managing one's account. Since these physical characteristics are missing on the Internet, people became afraid to trust such virtual establishments (Peppard and Rylander, 2005). Researchers found that a consumer who thinks there is a physical store behind a virtual one is more likely to trust the online retailer (Jarvenpaa and Grazioli, 2000 in Peppard and Rylander, 2005).

Many services that exist online are information-mediated versions of already existing offline services - such is the case with Amazon.com (book purchasing), Expedia.com (travel agent) and Tesco.com (grocery store) (Peppard and Rylander, 2005). The idea behind these services is to bring sellers and buyers together and conduct business. Banks, for instance, offer the possibility for online banking that enables their customers to check their accounts balances and make transactions. Moreover, the Internet supports innovative service designs that would not be viable in the physical world - such is the case with the online auction eBay.com that facilitates trade between private individuals.

According to Peppard and Rylander (2005), even though digital products and services have increased in importance over the last years there are still gaps in the theory that covers topics such as the marketing and management of such offerings. These digital offerings are entirely new category since they do not correspond to the strict meaning of the terms product and service. In that sense, value communication for digital offerings requires new strategies than the already existing ones, appropriate for physical products and services.

The following table represents a comparison between the products and services in the physical and digital world. It is based on Grönroos' (1990) framework of the characteristics of physical products and services. Peppard and Rylander (2005) have added two additional categories to the table in order to point out the differences between physical and digital information products. It is important to note that by traditional information products we refer to those with physical dimensions (books, documents, CDs, etc.). On the other side, by digital information products we refer to products whose content is in digital form and can be easily distributed and sold online (e-books, software, MP3 music files, research reports, etc.). Furthermore, we live in times when there are very few products and services in the traditional sense of the terms, since many companies that sell products aim at enhancing their products' value by offering additional services and support. Companies that sell services aim at making the value look more "physical" in their customers' eyes. The content of traditional and digital information products can be found in both physical and digital state (Peppard and Rylander, 2005).

Attributes	Physical products	Services provided in the physical world	Physical information products (PIPs)	Digital information products (DIPs)	Digitally mediated services
Level of abstraction	Concrete	Abstract	Concrete	Concrete and abstract	Abstract, but with a concrete dimension because of representation in medium
Level of heterogeneity	Homogeneous (all products the same)	Heterogeneous (all services unique)	Homogeneous	Depends on the level of interactivity and personalization	Can be both, depending on level of interactivity and sophistication
Complexity of value chain	Production and distribution separated from consumption	Production, distribution and consumption are parallel processes	Production and distribution separated from consumption	Separated from production to some extent, but the final output will sometimes be co-created with the consumer (e.g. interactive products). Distribution and consumption can be either separate or simultaneous	Production is at least partly separated from consumption—and can be entirely separated (depends on level of interactivity). Distribution and consumption are simultaneous
Object or process	An object	An activity or process	An object	Combination. Can be an object, but predominantly a process	An activity or process.
Point of value creation	Real value* is created during production	Real value is created in the interaction between buyer and seller	Real value is created during production	Real value is created partly during production, partly on consumption (experience) – i.e. in the interaction between the product and the consumer	Real value is created partly during production, partly on consumption (experience) – i.e. in the interaction between the service and the consumer
Role of customer in production	Customer does not (normally) take part in production (if a product is customized it is more of a service)	Customer is part of production process	Customer does not (normally) take part in production	Customer may or may not be part of the production process, depending on the level of interactivity	Customer may or may not be part of the production process, depending on the level of interactivity
Ability to store	Can be stored	Cannot be stored	Can be stored	The “base” product (e.g. software) can be stored, but not the “end” product (experience), particularly if interactive	Service capability can be stored, although not the “end” service if co-created by the customer
Ownership	Transfer of ownership on purchase	No transfer of ownership	Complex issue. Ownership of object is transferred, but not necessarily of content, depending on intellectual property arrangements. Generally ownership of content is expanded rather than transferred	Complex issue (depends on intellectual property arrangements). Generally ownership of content is expanded rather than transferred	No transfer of ownership of service but certain “rights” may be conferred

Figure 3: Differences between physical and digital products, services and information

products (*value is expressed from the seller’s perspective)

Table adopted from Peppard and Rylander (2005, pp.8-9)

The table above shows that physical information products (PIPs) are much more similar to physical products thanks to their physical state while the attributes of the digital information products (DIPs) differ considerably. Actually, DIPs are much more similar to services than to PIPs. Furthermore, digitally mediated services are similar to traditional products in some respects that are absent in physical world services. For instance, direct interaction (face to face) is not present in digitally mediated services but service capability can be stored and controlled which results in better service quality, eliminating the restrictions of place and time (Peppard and Rylander, 2005).

Following these thoughts, it becomes clear why simply moving PIPs online fails so often. Obviously, PIPs and DIPs have entirely different characteristics and DIPs producers can learn much more from traditional service providers than from PIPs producers. It is important to note that a lot of the online services require that the customer becomes much more involved in the actual realization of the service than it is the case in the physical world where the customer can be passive during the service realization. Basically, the services online are quite often co-created which influences customer value (Peppard and Rylander, 2005).

According to Peterson et al. (1997), information products are experience goods (such as services in the physical world) which means that in order for a customer to value a product he or she has to experience it first. How does one know the value of a book before reading it or whether they like particular song before listening to it? Neelamegham and Jain (1999) argue that emotional expectations rather than cognitive product attributes have a strong impact on consumer choice decisions and inputs such as reviews, ratings, word of mouth, etc. influence them as well. The intangibility that hinders the possibility for the consumer to assess the quality of information products creates problems associated with their marketing. A possible solution to that could be the distribution of free samples (Peppard and Rylander, 2005).

DIPs and online services are non-rivalrous meaning that one person's consumption does not decrease the quantity available for other individuals (Peppard and Rylander, 2005). For instance, listening to a song does not mean that it is not available to others who want to listen to it as well. In fact, unlimited number of people can listen to it simultaneously and it does not depreciate through usage in comparison to physical products. This creates the problem with transferability of ownership and intellectual property rights need to be considered. The information product seller will keep the valuable information despite the number of people who bought it. Usually, only when an information product becomes widely known (such as a

song or a movie) it reaches a huge number of users and creates great value. This is known as the “network effect” and it is extremely powerful for DIPs thanks to their ease of distribution (Arthur, 1994 in Peppard and Rylander, 2005).

Basically, the characteristics of products and services change in the digital world. Here, their differences blur and they acquire new common attributes that differ from the physical world. Hence, it is crucial to understand the impact the Internet has on the creation, marketing and management of products and services.

2.5 Freeware Versus Shareware

Referencing the previous definition of free, Freeware is *gratis* and costs the user no money to use the software, ever. Once the software is downloaded to the computer, the user has full access and can reinstall it on as many machines as they would like. However, Shareware is a different model altogether.

Shareware is commonly referred to as a “free trial” of the software, where the user is allowed to use most, if not all, of the functionality of the program for a limited time, for example 30 days. Once that expiry day has passed, the user is prompted to pay for the product to keep using it. There are ways for the user to bypass this, which involves reinstalling the software every time it expires, but for the purposes of the paper, that is not relevant as it is not the intention of the business model.

Both models are fundamentally different. One allows the user to feel no guilt and use the product forever, where the other will ask for money. Freeware receives all of its funding through donations by grateful users, which can be said to push development further by wanting users to have a good experience, so good in fact, that they want to donate. Shareware is just a digital version of a free sample in a grocery store where a salesperson will ask the customer to buy the full product after tasting what it was they have to offer.

Which method is better though? According to Anderson (2009, p.179), “shareware software programs often see less than 0.5 percent of users paying up”. That means that people use the free trial of the software until the expiration date and then stop using it or resort to the methods mentioned above to work around the trial duration. The shareware model has been around for a long time. mIRC is a popular Internet Relay Chat program that has been around since 1995 and according to their website has seen more than 150 million downloads in its lifetime. mIRC is shareware software with a 30 day free trial and after that trial requests that

users pay for a lifetime license of the software. However, mIRC still allows people to use the software well after the expiration date with no consequences other than a message saying how many days past the expiration they are running the software, essentially making the shareware software *gratis*.

Something very specific for the digital marketplace is that free is the chosen price almost all the time. If a company does not offer free version of their product or service there will always be people who will find a way around it since the reproduction and distribution costs are zero and the barriers to free are strictly psychological - fear of breaking the law, a sense of fairness, etc. (Anderson, 2009).

2.6 The Devaluation of Content

Many people believe that content such as movies, music, news, etc. is more valuable than the technology used for delivering them. Content might be king but paradoxically its perceived value has been driven steadily towards zero. According to Handel (2008), there are six related reasons for the devaluation of content.

First and foremost is supply and demand. Demand, which is the consumers and their time, is relatively constant, but supply which is the online content has grown exponentially. The online content consists of professional content (usually for free) and user generated content (people who do not care if they will get paid).

The second reason for the devaluation of content is the loss of physical form. It is perhaps the human mind that values physical stuff more than things that are intangible. Physical objects have been an integral part of our lives forever and distribution of intangible content has been around only for a couple of decades.

The third reason is the ease of access. It is much easier to go online for accessing content than via the traditional means. Since it is easier to receive content, transaction costs decrease and this has an impact on the price of content so it costs less (devalues).

The fourth one is the fact that most online business models are ad-supported. As Handel (2008, online) states, “ads impose a cost in the form of user attention, but many online ads are easily ignored and, today, even television advertisements can be skipped using TiVo.”

The fifth reason for content devaluation is that the digital market forces impose that content is free. Computers and other electronic devices are more valuable when there is more content

available for them. Apple are not making their millions by selling music files but by the iPods they sell.

Finally, the sixth reason is culture. There is a generation of users that has grown up with the development of the Internet. They are particularly hostile towards copyrights in music, movies, etc.

2.7 Business-to-Business Freemium - Alternative Approach

While the thesis focuses on Business-to-Consumer, as that is something everyone can experience, it is worth mentioning that there is a B2B freemium model as well. While fundamentally, the way B2B freemium works is the same as its B2C sibling, it has to be able to be monetized at a much higher rate. A freemium product for B2B is used to entice a business to purchase another product from the freemium product makers. Lincoln Murphy (2011, p.14) states that “this version of Freemium and after the appropriate market due diligence, companies will build a very simple, single-purpose Alternative Product (AP) that solves an immediate, specific and highly targeted need, but which promotes significant network effect and ecosystem opportunities well beyond that application. This application will be stand-alone, even if on the back end it is tightly coupled with their flagship product” (Murphy, 2011).

For example, Chatter is a social networking service for businesses, which mimics Facebook, but with a few refinements. Chatter works very well as a standalone product and it is a true Freemium service, where the user can opt to pay for a more advanced version. However, where Chatter becomes B2B freemium is that it is designed to link in with Salesforce.com, which is the main product. Salesforce is a cloud application, which means it is only in the web browser and it is a very popular Customer Relationship Managing service.

Since Chatter is linked so well with Salesforce.com, people using Chatter are enticed to use Salesforce.com as their CRM software of choice. By offering Chatter for free, Salesforce attracts customers to their main product, acquiring more professional users for their service which they must subscribe to at a high cost. The free product offers visibility for the premium product that people may not have seen without the free product, in this case, Chatter.

The hardest obstacle for a freemium business to business company to get over is that many professionals and business people have “the very real mindset that, *true or not*, “free = zero value”” (Murphy, 2011, p.11). Consumers, be they the end consumer or a business, have the

preconceived notion that if something costs more, it must be of a higher quality than the competition, even if this is not true. Businesses that charge more for their products, even if there are no supply issues in the digital world, can have a larger market share than competitors with an equal product but with a lesser price. Because of this, it is essential that freemium businesses show the value of their product to their potential consumers. Offering a premium version also grants credibility to the businesses that are considering buying, as they may have questions about support and want that extra level of supposed support from the software company.

People in the business world also have a certain amount of trust issues with a free service. They know that without a way of monetizing the product or service, the business cannot be sustainable. A company does not want to use a service that may or may not be around any longer in the future. They require something that is solid and stable that they know will have a long running and hence, “business software consumers are still quite keen on paying for software and often like software as a service for its de facto standard subscription model and the ability to pay incrementally over time” (Murphy, 2011, p.11). Without that stability, a company will not invest the time and money to implement the software if it does not prove to be able to be around for a considerable amount of time.

2.8 The Adoption Life Cycle

As with every new product to come out, both digitally and physically, there are three distinct waves of consumers that will use the product. Geoffrey Moore calls these consumers in his 1999 book, Crossing the Chasm, Early Adopters, Early Majority, Late Majority and Laggards.

Early Adopters know that a product may not be exactly successful and also know that there may be some debilitating bugs if the service they are using is labeled as in beta or even alpha (extremely early working phases). This does not deter the early adopters though. There may not be reviews about the service, or much feedback at all, but they have done their research and believe that this product or service fits them and their needs and they are willing to use it even if there may be a few niggling concerns with the service.

Early Majority are the consumers that have waited a little bit for the product or service to mature and stabilize. They still consume the product early in the lifecycle, but by waiting, ensure that the product they are using has a future and will not be shut down for various

reasons. They want to take in the feedback of the early adopters to see if the service is worth their money and or time in learning how to use the product.

Thirdly, there are the Late Majority. These people are the same as the Early Majority, in that they wait for reviews and want to see if the product is worth their time, however, they also wait until the product they use has become the de facto standard in its class.

And lastly there are the laggards, who are the people that do not care to purchase the good or service unless it is bundled with something else that they are purchasing. These people come very late into the lifecycle of the product, after it has had its time in the spotlight.

Knowing the types of users is very important when creating a freemium business. The key to being successful is pleasing the early adopters, as they are the vocal ones that both the early and late majority rely on to get their information. Freemium service innovators and creators need to listen closely to their early adopters and ask for criticism and request surveys in order to build their product into a worthy one for the early and late majority.

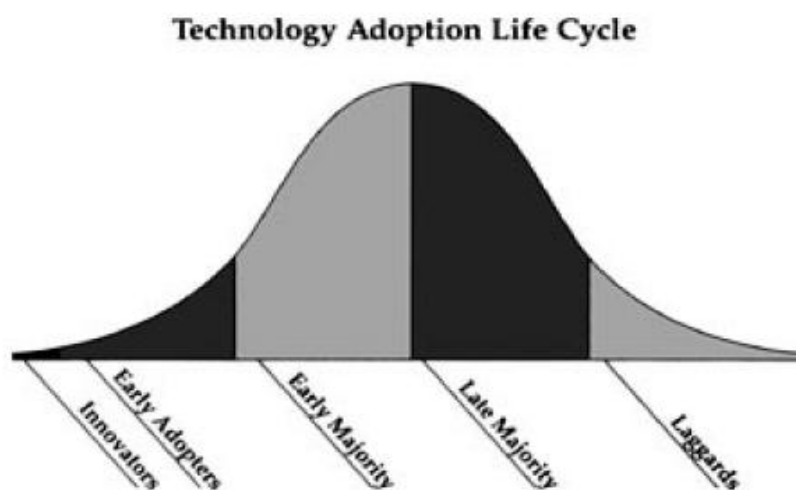


Figure 4: Diagram adopted from Moore (1999, p.10)

The diagram above illustrates the rate of product or service adoption amongst users, showing that there are very few early adopters, which then spikes once the product or service gains mass appeal and then decreases as the product has been out for a while and finally dwindles down when the only people getting the product are those that receive it bundled with something else.

An interesting idea was brought up in Moore’s book though, which is the idea of “cracks” along the bell curve. These cracks are breaks that hinder, or can completely halt, the adoption of the product or service by consumers. The reasons can be many, but in the digital market era, the biggest problem is knowledge about using the product or service. Early adopters are very eager to get their hands on something new and as a result of these people being knowledgeable about products and technology, they happen to be advanced users of the media, be it a computer, mobile phone, tablet, etc. What happens then is that there is a break, or as Moore calls, a crack, that prevents the majority of consumers from understanding and using the product due to difficulties and incompetence on an advanced level with the medium.

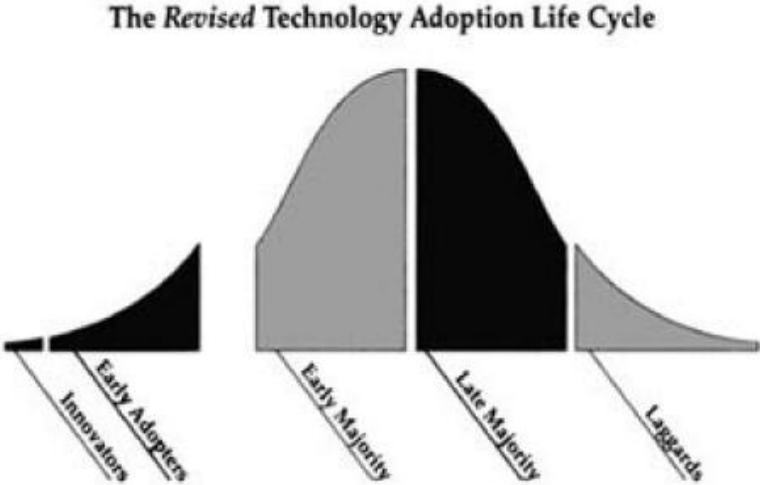


Figure 5: Diagram adopted from Moore (1999, p.13)

The chart above illustrates that there are gaps between all groups of users, but the largest exists between the early adopters and the early majority. The idea behind this needs to be addressed by the developers of a freemium good, as the freemium business model requires that the service be extremely popular in order to maximize the conversion of free users to premium. If only a few people can actually use the product, the masses will not and even if the service can convert 10% of the free users to premium, it will not be as profitable as if the service was easy for all people to use. A freemium product needs to be easy for all groups of users to adopt, otherwise the product may falter and most likely, die.

2.9 Summary of Theoretical Insights

The phenomenon of freemium is still poorly researched, hence there is a lack of information on the subject. The reader will notice that we refer to Anderson (2009) quite a bit. This is

because he literally wrote the book on free being used as a business model. Many things written in his book are directly referenced in this paper as he is the head source on the subject of Free as a business model. We use many different sources other than Anderson as well and refer to Anderson when appropriate.

What we have done, is we researched freemium and identified the key theories that seem to be applicable to most, if not all, freemium businesses. The way each freemium business fits into these theories differs, but the core of it is the same.

In that part of the thesis, we explored relevant theory - business models, differences between digital products and services, different concepts of free, etc. All of this theory is essential in order to be able to understand the nature of freemium and the building blocks of the business models of freemium companies that operate online.

Since a business model is “the rationale of how an organization creates, delivers and captures value” (Osterwalder and Pigneur, 2010, p.14), it is logical that a company will pay a special attention to these elements in order successfully implement freemium. In the business model canvas, we showed that freemium will have an effect on many building blocks of the business model. Consequently, it is essential that a company pays attention to every component when sketching their business model based on freemium. This is going to be the working framework of this thesis - how freemium affects the building blocks of the companies’ business models, which will inevitably answer the research question, namely what is the freemium business model and how is it used by Internet companies for value creation.

From the part about difference between products and services in the physical and digital world one can see that the economies in the two worlds differ considerably and the differences between products and services in the cyber world blur. Digital information products and online services are non-rivalrous, hence their quantity does not decrease on the basis of usage. This is one of the fundamental things that enable freemium online.

Since in the remaining part of this thesis empirical data will be collected, the ideas that were presented in this chapter will be carried into the analysis.

3. Methodology

In this chapter we present the epistemology and ontology on which the present thesis is based. The purpose of this thesis in combination with these points, have a direct impact on the choice of research philosophy, strategy, method and data collection. We also explain how the primary and secondary data was collected and analyzed. In order to discover what the freemium business model is and how Internet companies use it for value creation, We decided to use comparative case studies. Through the process of the study, it will become clear what organizations should do in order to become successful with their freemium orientation.

3.1 Research Philosophy

The focus of this thesis lies on the analysis of what the freemium business model is and how companies use it for value creation. The research on the freemium business model implies the use of specific research philosophy that will have an effect on the end result. Since we are researching a phenomenon within the scope of how these organizations adapt the building blocks of their business models to use freemium successfully, they feel that a constructionist standpoint is applicable. The research objects which in that case are freemium-based companies could be unveiled through researching the units of analysis which are their business models and more specifically, the building blocks of their business models. This leads to the interpretivist epistemology of gaining knowledge. We describe as acceptable knowledge, such that derives from the economic phenomenon of freemium business models.

The units of analysis are the building blocks of the business model mentioned earlier:

- Customer Segmentation
- Value Proposition
- Channels
- Customer Relationships
- Partnerships
- Cost Structure

3.2 Research Strategy

We decided to employ a qualitative methodology due to its more inductive view of the connection between theory and research, where theory is generated out of the research. Furthermore, the epistemological position is interpretivist which means that the social world is understood by examining the interpretation of the world by the participants in it. In addition to that, qualitative research features an ontological position which is known as constructionist, meaning that social properties result from the interactions between individuals (Bryman and Bell, 2011). Qualitative approach can also be extremely beneficial for theory development (Eisenhardt, 1989) and emphasizes words rather than numbers (Bryman and Bell, 2011).

Due to Freemium being such a young strategy in the digital market, new analyses are being created by professionals extremely quickly. Because of this, we have decided to use a qualitative methodology in conducting the research used in this paper. We use this method of research because as Eisenhardt (1989) mentioned in his paper of case study research, new insights are created from analyzing theory and studies conducted before.

We will be analyzing the content of cases done on successful businesses that have employed the freemium business model and hope to educate the readers by increasing their understanding of the subject of freemium and how it has been used by companies to create value for their customers.

We are following a model developed by Gibbons in Business Research Methods by Bryman and Bell in which there is a “trans-disciplinary” study being done. What this means is that the boundaries made by texts and other sources are exceeded, making the research done less linear in process. It allows thinking outside of an academic level and lets the problem be tackled by academics, policy-makers and practitioners. These different views of the problem/subject allow different people’s expertise on the topic matter to work together and formulate an answer that could not have been done in a purely academic state. The knowledge that is gained from this is quickly disseminated as the many viewpoints and experts allow the translation of the knowledge gained to be more easily accessed by the masses and in this case, us (Gibbons in Bryman & Bell, 2011).

We are conducting their research with a qualitative inductive method. We are referencing theories that have been brought up by other researchers and experts on the subject of freemium. We may not be presenting new theories to the subject of freemium due to the inductive method of research, however will generate “interesting and illuminating findings”

as well as “insightful generalizations” based upon research done by professionals (Bryman & Bell, 2011, p.13).

The data was collected over a short time period, about two weeks. The data gathered was strategically done so as to have relevant and recent information, however the date is not extremely important where theory is concerned.

3.3 Research Design

According to us, a multiple-case design is the most appropriate due to the specificity of the research question. This method looks at the same event or process in different settings or situations and helps the researcher develop a theory on the basis of the comparison between the different cases (Easterby-Smith et al., 2008; Bryman and Bell, 2011). By comparing more than two cases, the researcher can better see in which circumstances a theory is or is not valid (Eisenhardt, 1989). Every case will serve a specific purpose within the overall scope of the inquiry (Yin, 2003) - the different freemium companies researched are operating in different industries but they are similar in their freemium orientation. By using multiple-case design, we believe that we will be able to discover the fundamental similarities that need to be present when using freemium in order to be successful with creating value. Since there has been little research done on freemium (Teece, 2010), we believe an exploratory approach should be used.

3.4 Research Method

The research measures chosen are unobtrusive that are defined by Denzin (1970) in Bryman and Bell (2011, p.345) as a method of observation “that directly removes the observer from the set of interactions or events being studied”. Because of that, the analysis will be based on case studies and accessible public information from the companies that employ the freemium business model. Therefore, qualitative content analysis will be used as a research method.

The analysis of the cases is conducted by employing the theoretical framework of the business model canvas, free and adoption lifecycle mentioned earlier in the theoretical part of this thesis. In the presentation of the cases part of the paper, we systematically looked for the characteristics that correspond to each building block of the business models of the explored freemium companies. Then, these characteristics (empirical findings) are analyzed in order to find the similarities between the different companies in creating value and come up with

propositions that can help an online start-up to build their business model around them and successfully employ freemium.

3.5 Case Selection

The choice to use the cases that we have was difficult. Finding businesses and cases that are both very informational and yet open enough to draw new conclusions and theory from proved to be a challenging task because as stated many times before, the freemium business model in the digital age is young. The lack of available research from credible sources made it difficult as well. However, we were able to find very good cases on the larger, established companies.

The cases were chosen because of their ability to be applied to not just the freemium business model in general, but they also had specifics that were unique to each case and company that allowed us to create their own conclusions and create new information about the digital freemium business model. The cases were subjectively measured for their ability to provide the needed information due to the fact that the cases are all separate and not all conclusive on the same level. The process of searching for proper cases and articles is done via search engines such as Google and its daughter site, Google: Scholar, as well as Harvard Business Review and any articles that are provided by Lund University Library. Text books are also used from classes we have taken. We also look at the sources of these texts to enhance their selection and have an almost exponential list of sources going back, source by source, but not beyond source relevancy to the topic at hand.

Sources that are found via Google or other search engines are checked in order to make sure they are credible. The authors of the articles are looked into, making sure that they are experts on the subject that they are writing on, or if they are able to provide insights or criticisms to freemium in some way. We are not taking every source they come across and ignore the comments or other social media interactions that happen on the site or article as those can be misinformative and not referenced.

The cases are organized in a way that the more relevant ones that deal with this paper's subject as a whole are prioritized to be studied first and more, while cases that may not be fully applicable to the study and purpose of this paper are read for their insights and not completely for what the paper offers as a whole.

The cases about companies that are in the freemium market are chosen on a few criteria. Firstly, the company must be successful with the freemium business model. Successful is defined as a company that is well-known all over the world and has become an integral part of our daily lives. Secondly, the companies have to be large enough to have data and cases done on them. There are many freemium businesses in existence at the time of this writing, but many are not established or sustainable. As a result, many experts have not written in depth about them, which limits the available information for us, hence why the companies must be large.

The cases are chosen for only successful companies for the findings that we will draw in the conclusion. The conclusion is about what successful companies have done with freemium, not about what unsuccessful companies have done and the reasons for their failure.

3.6 Data Collection

Evidence for case studies may come from six sources - documents, archival records, interviews, direct observation, participant-observation and physical artifacts (Yin, 2003). The data collection phase of the research is done after all the cases have been assembled, which is the point in which thorough reading takes place to find relevant parts that can be used to draw conclusions and insight for us.

The data collection is done on a case to case basis, subjectively analyzing each case to see if it extensively explains its content and how that content can be applied to the topic of freemium in the digital market. The data is collected over a short period of time and the main goal is to find recent information even though some of the data used was published 3-4 years ago. The sources of data are both textual and non-textual and the non-textual sources will not be transcribed since they are publicly available and anyone can access them.

Studying the cases that will be presented later in the paper, the reader may notice that there are few sources. This is because we chose to get reputable case studies from Harvard Business Review. Another obstacle that could not be overcome was that out of the four cases businesses chosen to do case studies on, only two are publicly traded and have financial information publicly available. Some of the cases that were studied had expert analysts' approximations of the values of some financial aspects, which have been noted in the case analyses written by us.

3.7 Primary and Secondary Data

We use exclusively secondary data in their research. Even though there are no primary sources, the secondary data is strong and very informative allowing us to gain different insights on the subject of freemium, be they criticisms or praises. The secondary data consists of corporate websites, YouTube interviews with the CEOs of freemium companies, the book *Free* by Chris Anderson and many other books and academic journal articles. Secondary data is also employed and used widely due to the nature of the subject of freemium and the Internet ecosystem that it lives on. Different blogs and news organizations are all writing their own stories and information from the same press releases or presentations by companies and can offer different views and opinions on certain situations and decisions made by the companies.

3.8 Reliability and Validity

Bryman and Bell (2011) identify four concepts of reliability and validity in qualitative research: external reliability (degree to which a study can be replicated), internal reliability (whether there is more than one observer), internal validity (discovering if there is a good match between researchers' observations and the theoretical ideas they develop) and external validity (degree to which findings can be generalized across social settings).

In order to increase the external reliability of this thesis, we decided to describe deeply the research process. Since the thesis is based on information that is publicly accessible and gathered with unobtrusive measures, replicability is strengthened. There are two observers who agree on what they see and hear, therefore the research process is highly consistent and the internal reliability is strong, as well.

Internal validity is increased by basing the analysis only on content that is not grounded on interpretations. A good strategy for maximizing internal validity could be triangulation and respondent validation but due to time restrictions these are left outside the scope of the thesis.

As to external validity, we will not try to generalize the results of the research to other contexts since the focus of the thesis is on critical successful factors for freemium companies in online settings. The reader, however, can access all the information and decide whether the results could be applicable to other contexts, which inevitably increases the external validity (Payne and Williams, 2005).

According to Scott (1990) in Bryman and Bell (2011), the following four criteria require consideration when evaluating the quality of virtual documents:

- Authenticity - who is behind a particular web-site?
- Credibility - are the facts distorted?
- Representativeness - is the document current or outdated?
- Meaningfulness - is the document easily understandable without considerable insider knowledge?

Due to the vastness of the Internet and the rapidly growing area of business research using virtual documents as sources of quantitative and qualitative data, Bryman and Bell (2011) recommend keeping in mind Scott's four criteria. These criteria were strongly considered by us when collecting the data for the present research.

4. Case Presentations

The following chapter presents the empirical findings for each of the four cases as well as the reasons for the choice of each case.

- Skype - a company that revolutionized the way people communicate around the globe. It has been recently acquired by Microsoft for \$8.5 billion in cash.
- Dropbox - a startup created by two MIT students in 2007 which was made to allow people to access their important documents and files from any Internet connected device. Estimated to have made \$10-15 million in mid-2010.
- LinkedIn - a publicly traded business-related social networking site with a market capitalization of \$11 billion and 161 million members.
- Zynga - revolutionized the way games are played. Popularized the term “social network gaming” and implemented the freemium business model.

Case #1: Skype

Skype¹ is a peer-to-peer voice-over-Internet-protocol (VoIP) network that was founded in 2003 by Niklas Zennström and Janus Friis, the same people behind the biggest peer-to-peer file sharing service, KaZaA. Skype was originally funded with \$20 million in venture capital and was acquired by eBay in September 2005. Four years later, eBay sold a majority stake in Skype to a private investor group. In 2011, Skype was acquired by Microsoft for \$8.5 billion in cash. Up until the time of this writing, Skype has more than 800 employees and offices in Hong Kong, London, Luxembourg, Moscow, New York, Palo Alto, Prague, Singapore, Stockholm, Tallinn, Tartu and Tokyo.

The core service that Skype offers is computer-to-computer sending of voice, text, files or video messages via the Internet completely for free. For a fee, one can become a Premium user and get extra benefits. The differences between a free and premium plan can be seen below:

¹ The presentation of Skype is based on their sharing of information in Skype (2012a online), Skype (2012b online), Skype (2012c online), Baweja (2011 online), Microsoft (2011 online), Microsoft (2012 online), Aoaeh (2011) and Coles and Eisenmann (2009).

	Free	Skype Premium
Skype-to-Skype video and audio calls	✓	✓
Low rates to landlines and mobiles	✓	✓
Instant messaging	✓	✓
Conference calls	✓	✓
Group video calling ²	×	✓
Group screen sharing	×	✓
No partner advertising ³	×	✓
Live chat customer support	×	✓
Unlimited ¹ calling to a country of your choice View countries	×	Sweden ▾

Figure 6: Adopted from Skype (2012b online)

In order to use the service that Skype offers, every user has to have the Skype software installed on their computer as well as a broadband Internet connection. The software can be downloaded from the company's web-site and it works on almost any device with an operating system.

Skype also relies on a peer-to-peer architecture rather than the traditional client-server architecture used by most VoIP services. Since Skype's user directory is distributed among network peers, many service-related costs are avoided because centralized server infrastructure is not necessary.

Skype's business model is clear - the company attracts users to its free service mainly by word of mouth - till the end of 2005, Skype spent nothing on marketing. After eBay acquired Skype, the marketing efforts were increased - the company purchased text and banner ads and operated an affiliate program. The service that Skype offers is particularly attractive to consumers with big long-distance phone bills.

Another specificity of Skype's business model is the peer-to-peer architecture that allows the basic free service to incur almost no variable costs. The customers' computers are used to

route calls, so the company does not need a huge number of centralized servers. Moreover, the customers provide bandwidth for calls via their own Internet connections.

As of late 2005, Skype earned most of its revenues from 5% of its users that upgraded to Premium. The premium services incurred variable customer service costs for billing and responding to queries from users. In order to interconnect with the public switched telephone network, Skype needed gateways that convert IP traffic into regular telephone signals and vice versa. Capital costs for gateways are largely fixed, but vary with traffic volume.

At the end of 2010, Skype had more than 663 million registered users (up from 474 million a year earlier) and \$860 million in total revenue (Baweja, 2011 online) and in April, 2012 reached a new milestone of 40 million people simultaneously online (Skype, 2012c online).

A couple of years ago, there was a rise in complaints about Skype's first commercial service that let the users cheaply make calls to ordinary phone lines. Not only were the customers waiting days for their accounts to be credited but they also reported that their conversations were disrupted by delays. Other customers complained that some calls were not going through at all and even if they did, one could hardly hear the other person. Back then, Skype relied mostly on e-mail, proactive customers and patience. Skype's spokesperson said that the company was not in a position to send technicians to inspect individual user's setups or Internet connections but were relying on reports from users to investigate any potential trouble areas. Skype also lets users share their opinions in free online forums that are monitored by Skype staff that pass feedback to development and telephone operator partners.

Skype's ecosystem consists of software and hardware producers. There are software add-ons that integrate Skype with email programs such as Microsoft Outlook and web-browsers such as Google Chrome and Mozilla Firefox. There are also phones that you plug into a computer and one does not need a headset to use Skype. In November 2004 Skype released the Application Programming Interface (API) for its application to encourage the production of third-party products.

Skype's Vice President of Products, Rick Osterloh says in an interview that a "big area is our partnership with Facebook. We've launched a number of integrations on Facebook. Any user of Facebook.com can make a Skype call and we just released a Skype client that allows you to connect the two - so you can Facebook chat and Facebook video call from within the Skype

client". So basically, one's Skype and Facebook friends can be contacted directly from the Skype client thanks to the partnership between Skype and Facebook (Microsoft, 2012 online).

Tony Bates, former CEO of Skype and now President of Skype says that the post-merger would not change the Skype experience and that "the value proposition of Skype is being multi-platform across different devices, whether it's PC's, desktops, mobile phones, whether it's in the living room and that's key and that must stay and we are committed to that" (Microsoft, 2011, online).

In summary the examined building blocks of Skype's business model look as follows:

- Customer segmentation: there are two customer segments for Skype - web users (using the basic free service) and people who want to call regular phones cheaply (premium subscription users).
- Value proposition: free chat, sending of files, audio and video calls. Furthermore, cheap calls to regular phones, group video calls, Skype WiFi, Skype online number, etc.
- Channels: the main channel is their web-site skype.com but also smartphones, tablets and other mobile devices.
- Customer relationships: almost no help for the users of the free service except for a Frequently Asked Questions (FAQ) and How-To guides section. Basically, almost automated customer support. However, there is a customer support for premium users.
- Partnerships: payment providers (processing credit card payments), distribution partners (making the software available on their sites as well), Facebook (integrating Facebook contacts into the Skype platform).
- Cost structure: most recent data says Skype has 663 million registered users and \$860 million in revenue. According to us, Skype's business model is viable even though it is difficult one to be sure since the company does not publish their financials publicly.

Case #2: LinkedIn

LinkedIn² is an online professional networking service that started out in the living room of co-founder Reid Hoffman in 2002. Nowadays, it is the world's largest professional network on the Internet with 161 million members in over 200 countries and among the members of the service one can find top executives from every company on the 2011 Fortune 500 list. As of March 31, 2012, new professionals are registering on LinkedIn at a rate of approximately two per second. The company has a diversified business model with revenues coming from hiring solutions, marketing solutions and premium subscriptions.

As far as value proposition for professional users is concerned, LinkedIn's original core service involves enabling professionals to conduct Internet-based networking. Through LinkedIn, users can locate service providers, subject experts, business partners and potential customers. They can also search for job opportunities. From end to end, the LinkedIn service is clearly professional, rather than social or personal, in nature. "It's very much tied to the workday," Dan Nye ex-CEO of LinkedIn observed. "Our network activity shoots up as people come into work around the world. The weekends are pretty darn quiet" (Yoffie et al., 2009, p.4).

Membership in LinkedIn is open to anyone and when users join they can create a profile that summarizes their educational history, their career accomplishments and their professional affiliations. Once they complete their profile, they can expand their individual network by inviting both existing LinkedIn users and new members to join it. A LinkedIn member's network consists of their connections (first-degree contacts), their connections' connections (second-degree contacts) and so forth.

A key service that LinkedIn provides is the ability to find and potentially to contact, any other LinkedIn member. Through the site's search function, users can pinpoint other LinkedIn members—those within three degrees of connection—whose profile either contains certain keywords or features a certain company, industry, or job title. Users can then try to connect with a specific member in one of two ways. First, they can send a request for an introduction to that person through their chain of connections. At each degree of connection, a contacted member has to decide whether to forward the request. Second and **for an additional fee**,

² The presentation of LinkedIn is based on their sharing of information in LinkedIn (2012a online), LinkedIn (2012b online), LinkedIn Corporation (2012 online), Google.com (2012b online), Khan (2010 online) and Yoffie et al. (2009).

members can connect with any other LinkedIn member by sending an “InMail” through LinkedIn’s internal e-mail system.

As far as value proposition for corporate customers is concerned, LinkedIn develops offerings that further the goals of corporate managers. The company also sells products that allow employers and recruiters to post job listings on the site or target passive professionals who are not on the job market. LinkedIn also facilitates company networking - for instance, LinkedIn users who work for an organization can organize themselves into a closed forum where they can share news, know-how, advice, etc.

The company reached break-even point in 2006 with sales that reportedly topped \$10 million. Steve Sordello, CFO at LinkedIn said that all of their revenue streams were positioned in very large addressable markets - recruiting solutions, online advertising and subscriptions. That gave them a lot of sustainability and even if one of those revenue streams did not succeed, they had others.

Advertising - it accounts for a sizable share of LinkedIn’s revenues. “The audience for our business is the professional demographic, so we need to have minimal advertising that blends well with our core identity”, Sordello notes (Yoffie et al., 2009, p.6).

Subscriptions - fees paid by subscribers make up a substantial portion of annual sales. These accounts allow users to take advantage of the premium features.

Job Postings - employers pay fees to list job opportunities. This service is similar to the one offered by newspaper classified-ad departments.

Corporate Solutions - this service enables hiring teams to find the right applicant for a job. It allows recruiters to target passive job candidates.

The subscription model of LinkedIn is based on the freemium model. When free users use the basic service of LinkedIn, they give valuable information to the company that they can sell to the premium members. The cost of supporting the free users is justified by the income generated from the premium users. LinkedIn manage to get the formula right and offer value to big mass of free users and add value to small group of paid customers that actually cover the cost of the free users.

Consequently, the building blocks of LinkedIn’s business model look as follows:

- Customer segmentation: the two customer segments of LinkedIn are professionals (usually the free users of the service) and corporate customers (posting job offers, targeting passive professionals, etc.).
- Value proposition: enables professionals to conduct Internet-based networking. For corporate customers, LinkedIn provides the opportunity for paid job listings, targeting passive professionals who are currently not on the job market or creating a closed forum where the company members can share news, know-how, etc.
- Channels: the main channel is their web-site LinkedIn.com, smartphones, tablets and other mobile devices.
- Customer relationships: automated to a great extent by a very detailed FAQ section. Communication is conducted via the corporate blog, e-mail, RSS feeds and other social media such as YouTube, Facebook, Twitter, etc.
- Partnerships: the biggest partners of LinkedIn are Google, Twitter and Amazon. Google helped with the creation of an application platform that allowed users to create more robust profiles. Furthermore, when one sets their status on LinkedIn, they can tweet it as well. Amazon developed a Reading List application on LinkedIn that allowed one to share what they were reading with their LinkedIn network and find out what books their connections or others in their industry were reading. Other important partners are The New York Times, Reuters and CNBC that integrated their services with LinkedIn.
- Cost structure: LinkedIn has more than 161 million members and on May 17, 2012 the market capitalization of the company is estimated at \$11.72 billion. Revenues for 2011 were more than \$522 million and \$11.9 million net income.

Case #3: Dropbox

Dropbox³ was founded in 2007 by two MIT students Drew Houston and Arash Ferdowsi and currently has more than 50 million users (Dropbox.com, 2012 online). It began as a Y

³ The presentation of Dropbox is based on their sharing of information in Gunther (2011 online), Chopra (2012 online), Dropbox.com (2012a online), Dropbox.com (2012b online), Kincaid (2011 online), Brodtkin (2012 online), Houston (2010 online), Ries (2011 online) and Eisenmann et al. (2012).

Combinator project and happened to win first place. Y Combinator is a competition/ start up consulting company that will help fund the winner of the competition for three months and give them advice for an average of 6% of the company's equity in exchange. The Y Combinator selection is rather prestigious in the tech start up industry, as "the average valuation of a Y Combinator backed company is 22.4 million USD." (Kincaid, 2011 Online) Dropbox gained critical acclaim as a service from many blogs on the Internet such as Lifehacker.com claiming it was the best online backup tool in 2009 and mentioning the service in many articles since its release.

Dropbox's version of freemium is probably the easiest to understand out of all the examples as the benefit is measurable. The free account gets 2 gigabytes of storage defaulted, but a user can gain 500 megabytes of storage for each user they refer to the service which then caps at 18 Gigabytes of storage. However, if the user wishes to have more space, they can then pay 99 USD a year or 9.99 USD a month. Dropbox knows that these increases in storage are not going to be used by most of the people as they held only 433 Megabytes of data on average for each user in late 2009 (Eisenmann et al., 2012).

The image shows a screenshot of the Dropbox pricing page. At the top, the 'Free' plan is highlighted with a light blue background. Below it, under the heading 'Other account types', three more plans are listed in separate boxes:

- Free:** Up to 18 GB (2 GB + 500 MB per referral). Includes an 'Account info' link.
- Pro 50:** 50 GB +, +1 GB per referral, up to +32 GB. Price: \$9.99/month or \$99.00/year. Includes an 'Upgrade to Pro 50' button.
- Pro 100:** 100 GB +, +1 GB per referral, up to +32 GB. Price: \$19.99/month or \$199.00/year. Includes an 'Upgrade to Pro 100' button.
- Teams:** 1 TB +, Plans starting at 1 TB. Features: Large shared quota, centralized admin and billing, and more!. Includes a 'Learn more' button.

Figure 7: Adopted from Dropbox.com (2012b online)

Dropbox wants to offer their service to as many people as it can. The idea is to free its users from traditional storage and transferring such as USB drives. According to Cisco, a leading network hardware manufacturer, the number of just mobile Internet devices will outnumber humans by the end of 2012 (Brodkin, 2012 online). That number is just mobile devices, which Dropbox also works on. The use of their product helps anyone with not just a mobile device but a normal computer connected to the Internet.

Dropbox has many different types of uses depending on what the user wants or requires of the service. From backing up important files, hosting images, collaborating on projects, or sending files, Dropbox's service caters to many different people with different needs.

As the CEO Drew Houston noted, a good fundamental thing of their business model is that their customers understood that storage costs money (Houston, 2010 online). Some of the premium users of the service even never exceeded the quota provided by the free service but were still paying for it. Houston also pointed out that people are sending Dropbox emails thanking for the service because it helped them recover files that they had on their stolen laptop or even people who said that Dropbox helped them save their wedding photos because their laptop died (Barret, 2011 online).

Dropbox realized early on how important it was for them to acquire customers and set 30% of their engineering resources to that specific task. Most of Dropbox’s users were gained via word of mouth, with 35% of the sign-ups in 2010 coming from referrals (Eisenmann et al., 2012).



Figure 8: Adopted from Ries (2011 online)

The above flow chart is from Drew Houston's presentation at Start Up Lessons Learned 2011. This chart depicts how Dropbox thinks that its customers use the word of mouth to help grow Dropbox.

Dropbox did not market much and Houston even said "It's hard to master freemium products unless you can build an organic customer acquisition engine. If you think of your free user costs as your marketing budget, then things begin to make more sense." (Eisenmann et al., 2012, p.8). Dropbox wanted their service to be easy to use, yet offer enough to keep advanced users happy with features.

Interacting with users was done via support forums and allowing users to vote on aspects, as well as A/B testing. Dropbox did not conduct customer surveys but did test their features with users to make sure that they were good enough to roll out to the release version.

Dropbox's success can be heavily attributed to making their product super simple and easy to use and understand. They tested their early program on five random people they found on Craig's List, a popular website used for posting classified ads. Houston said that "it was painful watching them (the testers) fail" (Eisenmann et al., 2012, p.8). But without these tests with random people that could be using their product, Dropbox might have been too difficult to gain mass appeal in the online storage industry.

One of the benefits for Dropbox is that storage prices only become lower and lower, barring the flooding in Thailand in late 2011 that caused a hard drive shortage. As these prices decrease, their cost of operation decreases, allowing more of their income to be put towards future products and refinements of their current service. Analysts have estimated that Dropbox's monthly storage and bandwidth cost for their average free user is \$0.11 and \$3.18 per paid user (Eisenmann et al., 2012).

Based on the preceding presentation of Dropbox, their business model building blocks look as follows:

- Customer segmentation: Dropbox's target market is people who use computers and need their files on more than one machine. The free users are usually private individuals who do not need a lot of space and are satisfied with the 2 Gbs quota. The other segment is corporate customers who have many employees and hence much bigger space requirements.

- Value proposition: Dropbox offers free space, easy access to one's files, user-friendly interface and universal application for different platforms. Furthermore, the service can be used as a reliable backup since the files are securely saved on Dropbox's servers and the risk of losing them practically does not exist (or is decreased to minimum).
- Channels: the main channel is the website of the company Dropbox.com. Furthermore, new users are acquired through referrals who earn free extra space.
- Customer relationships: highly automated. There are also communities in Facebook and Twitter that promote customer to customer support.
- Partnerships: Recently the mobile phone manufacturers HTC and Samsung partnered with Dropbox by offering 5 GBs of free space for their Android smartphone customers.
- Cost structure: Since Dropbox is a private company, they do not disclose any financial information so it is difficult to make any estimates. Considering the fact that Dropbox's CEO Drew Houston turned down an offer from Steve Jobs not so long ago, one can conclude that the company is profitable.

Case #4: Zynga

Zynga⁴ is an online social gaming company that was founded in 2007 by Mark Pincus. They have a plethora of games and are constantly developing and acquiring new properties to create games on. Zynga's platform is any web browser and mobile devices, specifically iOS and Android. The company boasts over 240 million monthly active users as of February, 2012 (Takahashi, 2012 online) which ends up as \$1.22 billion of revenue as of May 9th, 2012 (Yahoo, 2012 online). Zynga became public on December 16th, 2011 with its shares priced at \$10 at its IPO.

Zynga uses the freemium business model almost exclusively, starting with their first freemium product of Zynga Poker. Zynga Poker was a Texas Hold 'em game that was played

⁴ The presentation of Zynga is based on their sharing of information in Aoaeh (2012 online), Takahashi (2012 online), Yahoo (2012 online), Cutler (2012 online), Eldon (2010 online), Google.com (2012a online), Piskorski and Chen (2012).

via Facebook. At first, the game was purely free, with no option to spend any money, however this changed when Zynga allowed users to purchase chips in order to play at higher skilled poker tables. Mark Pincus, the founder of Zynga had this to say about why poker chips were profitable.

“You’d be paying for chips because it would take you a month to work your way up to enough chips to play at the really good tables. Otherwise, you’re playing with people who don’t know how to play Poker. If you fancy yourself as a player, you wanted to be at the high roller table where you’re playing against really good people” (Piskorski and Chen, 2012, p.3)

Zynga's sales of virtual goods represented 40% of the company's revenue, which grew to over 90% by February 2010. According to Piskorski and Chen's case study in the Harvard Business School, "between 0.25% and 5% of users bought a virtual good on the site and these numbers varied significantly depending on whether the game was cooperative or competitive" (Piskorski and Chen, 2012, p.7). Users did not have to purchase these goods and many of them were "boosts" or ways to speed up certain aspects of the game to advance through it quicker. Spending money added content or advantages in the game that you would not be able to experience normally. These purchases are very apparent in competitive games where they can give users enough advantage to defeat others more easily, enticing those who have not purchased any goods, but take the game seriously, to purchase goods to be on an even playing field with those that do.

Zynga solidified its spot as the top social game company by developing games, or as Marc Pincus stated, reasons, to spend time on Facebook. Facebook already had millions of daily users who spent hours on the site each day. Zynga set out to capture those users into doing something interactive with their friends.

Zynga currently faces issues with their games and apps declining in popularity. Games are much like fads, especially in the mobile market. Freemium games draw in a bunch of users very quickly, but if the content does not change fast enough for the free users, the game can lose popularity just as quickly as it had gained it. Take for example Zynga's most recent high profile acquisition of Draw Something from OMGPOP for 180 million USD (Cutler, 2012 online). In the month that it has been under Zynga control, the popularity of the application has been steadily dropping.

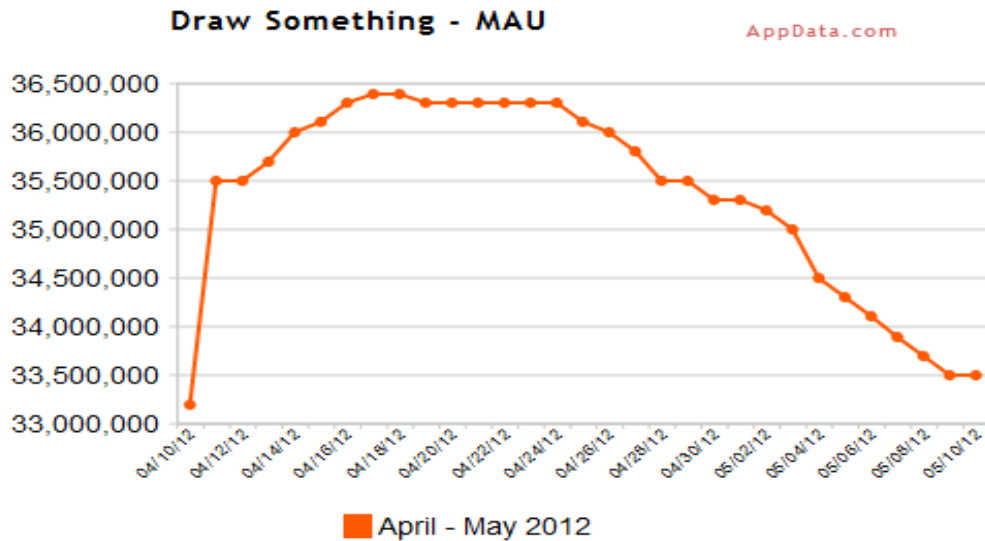


Figure 9: Adopted from Cutler (2012 online)

The chart above depicts the growth and decline of Draw Something’s users. As can be seen, it increased and peaked and has been dropping ever since April 24th, 2012. The growth cycle of applications and other popular Internet applications that do not have a use other than entertainment is a very accelerated version of the life cycle discussed earlier in the Adoption Life Cycle section of this paper. This is an issue that all of Zynga’s games have and can be safely assumed that most of the freemium game application creators face the same issues. Take for example Zynga’s other games that helped boost them towards success, Cityville and Farmville.

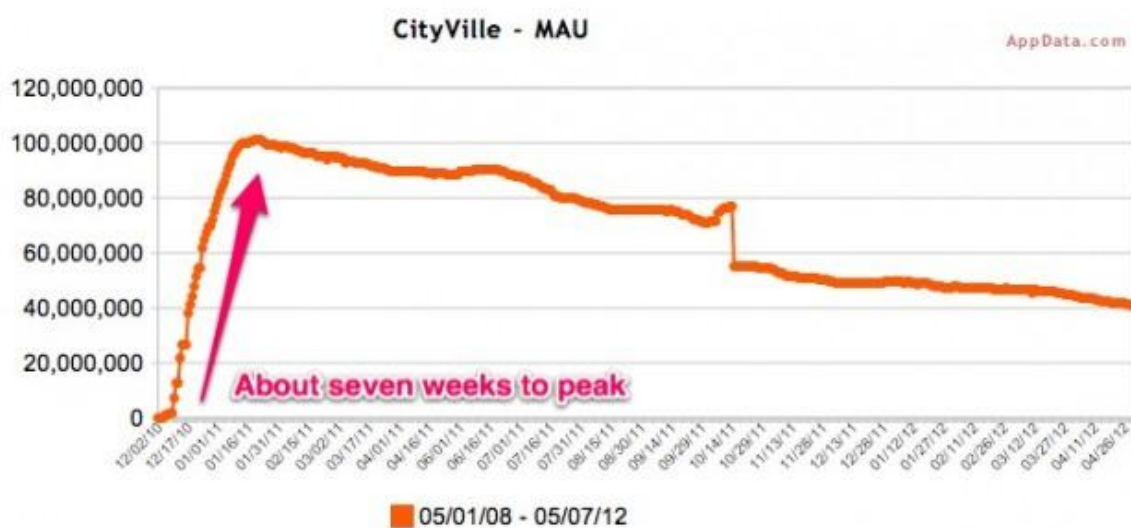
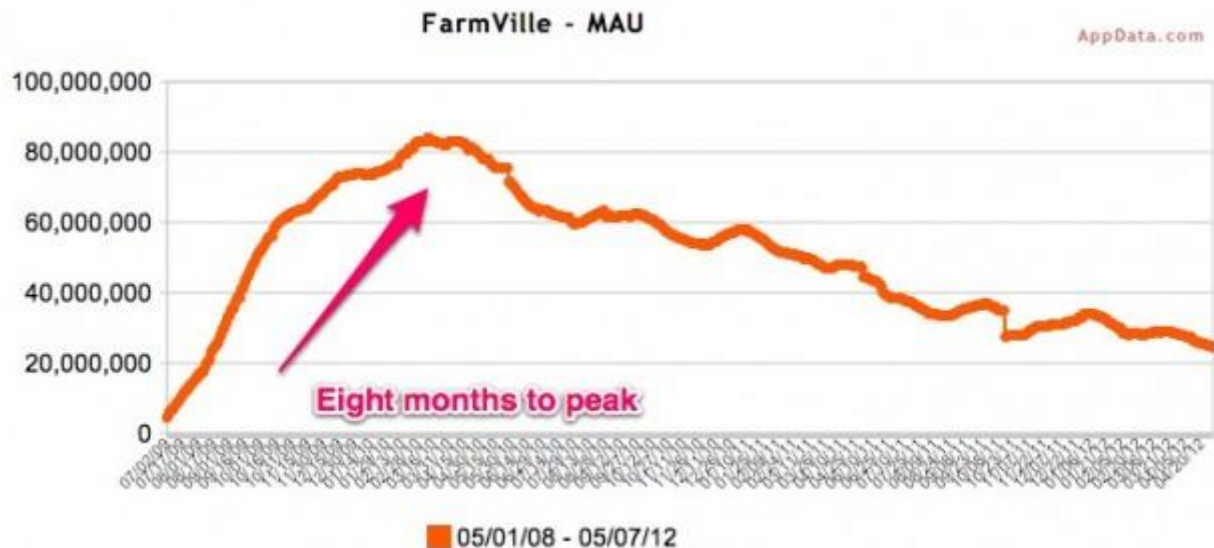


Figure 10: Adopted from Cutler (2012 online)



Figures 11: Adopted from Cutler (2012 online)

While the time it takes to peak differs between apps with many different factors that the purpose of this paper is not interested in, the idea is the same. The applications, in this case games, have a very short but rapid growth cycle, followed by a long decline relative to the life of the product. Zynga can expect to make a quick burst of money off of a new successful product and then still continue to milk it as it steadily, but slowly will decline. This is why it is extremely important to continuously develop new games and apps for the users, as to attract more people to one game for a longer period of time and as well as attract the mass of people that will play for just a bit but not be continuously returning users.

As far as partnerships are concerned, Zynga's most important partner is Facebook since the company would not be able to operate without using the social networking platform. Furthermore, Zynga has a partnership with InComm (a pre-paid card market leader) that is Zynga's virtual currency card distributor in more than 12,800 retail stores within the USA (Eldon, 2010 online).

According to the theoretical framework we use for describing the business model of freemium companies, Zynga's profile looks as follows:

- Customer segmentation: The two customer segments for Zynga are the Internet users who play their games for free (who have more time than money) and those who pay for extra content in order to progress faster in the games (who have more money than time). Another major source of revenue is the advertisers.

- Value proposition: Zynga are trying to become an alternative word for playing online social games, similar to the case with Google which is used as a substitute for Internet search. Zynga creates value for their users by making playing games an integral part of communication and relationship building between people online.
- Channels: The main channel is Facebook, followed by mobile phones, tablets, etc.
- Customer relationships: Automated to a great extent - FAQ section, forums, blog, etc.
- Partnerships: The key partners of Zynga are the social networking sites Facebook and Google+. Furthermore, manufacturers of smartphones, tablets and other mobile devices are extremely important partners for Zynga. Of course, payment providers have a crucial role in this building block of Zynga's business model, as well.
- Cost structure: Zynga went public on December 16, 2011 and has more than 2000 employees around the world. Zynga's revenues exceeded \$800 million in 2011. On May 16, 2012 Zynga's market capitalization is \$6.28 billion which is remarkable for a five year old company.

5. Analysis

In this chapter the empirical findings are analyzed. The companies discussed are successful freemium-based organizations with millions of customers around the world which proves that freemium is a feasible business model and it should be seriously considered when setting up a new business online. This refutes Teece (2010), according to whom it is still not clear if freemium-based business models are viable. However, we cannot confirm if freemium-based businesses' viability is sustainable since it is outside the purpose of the thesis. Consequently, the first proposition is:

Proposition 1: Freemium can be used for the creation of working business models.

Customer Segmentation

The four freemium companies that were presented in the previous chapter place their customers into two segments - free and paid. The similarity between these organizations is that they focus on serving large markets by introducing revolutionary services. All of them target their potential customers by advertising the free service and once the people get used to it, they can find out the additional benefits they can get from the premium offer.

Conversion rates are what freemium businesses thrive on. Rather low conversion rates between free and paying users were seen in this paper, but a small percentage of paying users from a large pool of potential users can still be very profitable. That is why a freemium business must target a very large base of potential users. There needs to be a large group of people to deliver the value to and the group must be easy to get in contact with. A freemium business cannot deliver value if there are no users and there needs to be many users in order to break even with the premium customers. The product must have a large enough target market that a single digit percentage of the users that pay can supply enough revenue to subsidize the cost of giving out the service for free as Osterwalder and Pigneur (2010) describe a typical freemium business.

The products and services are fantastic as free, but there needs to be a few users that decide to pay for the premium service, or buy virtual goods in order for the business to keep functioning. With these four cases, all of the businesses offer compelling reasons for many users to pay for the service. For Skype, the users receive more from the product, allowing them to call telephones, or even have Skype set up as a telephone line. Premium can call

internationally cheap, usually cheaper than many landline providers charge, which for many is reason enough for them to switch to a premium version.

For Dropbox it is a simple idea behind if users want to pay or not. If they use the service, they will fill up their data. If they need more storage space, they can purchase it. As mentioned in the case analysis for Dropbox, most users do not exceed the limits of the free storage that Dropbox offers. However, the creators made the tool and software so well, that there are those that find the service indispensable and use it for a plethora of reasons. These people are the ones that will pay for more storage as they use it, as they depend on the tool for their own case.

Zynga is a bit different than Skype and Dropbox. Zynga concentrates on making quality casual social games for people to spend their free time on. The direct benefit of making a good game is that people want to play it, so Zynga can then offer better items or customization options for the people that really do enjoy spending quite a bit of their time on whatever game they like. Many people would buy virtual items in order to progress faster in the game and usually these are people who Anderson (2009) describes as people with more money than time. If the game was not good as a free game, people would not play it and therefore Zynga would not be able to sell goods for the premium experience.

Proposition 2: A freemium business needs a large market with potential consumers and not a niche segment.

Value Proposition

It is interesting to see that the value created by all four companies is unique to a certain degree. The value propositions are the same in their core but the only difference between free and paid is that the paid users receive extra value or access to the full service in comparison to the free users who get the basic offering. As Faugere and Tayi (2007) explain, the purpose of giving away a free sample is to increase sales by providing the potential buyers with an authentic experience. Dropbox is successful with this and what helps them as well is that the users know that storage costs money and they appreciate the service offered by the company. Dropbox is also a safe backup place for files that can get lost for one reason or another. In other words, the value created for the users is that people are not dependent on the location where their files are saved anymore. Dropbox's value can be measured, although not in a scientifically accurate way. One can measure Dropbox's value to the consumer by comparing

the cost of a similar sized USB drive to the free space offered by Dropbox. Obviously, a USB drive also has the added benefit of not needing to be used on a device connected to the Internet, but the number of devices not connected to the Internet is steadily decreasing, allowing Dropbox to be used more widely.

There have always been free services for sending text back and forth between users, but the added video and voice calling for free is what really set Skype above the rest. Skype can and for some has, replaced landline phones. The transferring of files was also revolutionary in the communication market online. Skype was the first to allow its users to do what they needed to in order to conduct online communications and meetings. There are singular services that exist that share the functionality of some of Skype's services and by taking into account their costs one can calculate the monetary value that Skype's basic free service offers. For the most part, the basic Skype package is good enough for most users, however those that would like to replace their landline with Skype can do so if they pay extra for a phone number and unlimited telephone calling with Skype and for many people, it ends up being cheaper than paying for a landline. Those features are what gives Skype the value and can be quantified depending on the region of the user and the services the user may wish to replace.

Zynga's product value is determined by the user and how much entertainment they get from playing the games. For some, the value will be higher as they like the games, whereas others may see no value in any Zynga offerings. Those that really enjoy the game and get satisfaction from it can support the game by purchasing the goods that Zynga offers and by putting their money into it, they have invested and feel like they need to play more to get their money's worth. It is fundamentally different than Skype and Dropbox, where the value can be semi-determined without input from the user as they can be seen as substitute services.

LinkedIn falls into the same category as Zynga, where the users of the site determine the value of it. Some businesses like to use LinkedIn to find new hires as they know who the prospective hire is connected to and can ask their closer connections if they are a good choice. LinkedIn saves businesses time and effort when it comes to searching for the right match out of all the people that are searching for a job. Those that are searching for a job get as much out of LinkedIn as they put into it. The service is a network that requires users to keep their information up to date and also keep expanding their web of contacts. If a user has an account but does not keep it up to date, or is not very active on the site, the value of the service drops. There is no real measurable way to say what the value of LinkedIn is to the average user.

Someone who has found a job via the service may very well give LinkedIn a higher value than someone who just uses LinkedIn to keep a network of people they know professionally.

Proposition 3: The company must be able to attract huge numbers of users mainly via their free service and be convincing enough to convert some of them into premium users via emphasizing the value of paid service.

Channels

Word of mouth referrals help all businesses and products that exist, but in the case of freemium businesses, it is critical to their success. Most freemium businesses start off with very limited funding which goes towards building and refining the product rather than marketing. They rely on early adopters to pick the product up and introduce it to others. If they are lucky, a blog like Tech Crunch, Engadget or Gizmodo etc. will find them and write a story about their product. Media coverage promotes a huge increase in users as they would not have heard of it otherwise.

Dropbox launched in 2007 and in that year the service was prominently featured on a blog called Lifehacker, which is part of the Gawker network. Lifehacker is a blog that writes about how to be productive and tools that can help their reader to become more efficient with their day to day tasks. Dropbox quickly became a hit with the writers of Lifehacker and gained much popularity due to its exposure. The users of Dropbox were and are still, enticed to spread the word about the service by getting more storage space if they referred users, which spurred the popularity and market penetration of Dropbox forward.

Zynga thrives on word of mouth and actually revolves its products around it. Zynga's idea of social games is to get all friends to play together. The company accomplishes this by posting on players Facebook timelines with achievements or requests for aid in their games. People that are friends with the user, yet not a Zynga game player, will see these posts and via them, know what Zynga's games are and hopefully play the game. Zynga also is in the media, with record setting numbers and even had some real life merchandise for their games once they were popular (Axon 2010, online).

Skype did not do any advertising when they were beginning. Instead, they relied solely on word of mouth. What Skype thrived on was people calling internationally online. International telephone calls cost quite a bit of money and they add up, especially if a user has family in another country. Skype allowed families and friends to connect for free

internationally. People wanted to tell each other about the service because then they could talk for free, so it was beneficial for all parties involved.

LinkedIn requires word of mouth almost identically to Skype. Both are about creating networks for communication and the more users there are, the better the experience is for everyone using the service. The more connections somebody has on LinkedIn, the better it is for them if they are searching for a job or if they are looking for someone to fill an open position.

Proposition 4: Word of mouth is crucial for freemium businesses' success.

Customer Relationships

All of the discussed companies have automated customer relationships and support to a great extent. Personal support and assistance is only available for premium users. All of the companies have established user communities on forums and social networking sites. Thus, these communities provide customer to customer support and sometimes a moderator or an employee of the company takes part into the discussion. There are huge FAQ sections that answer most of the common questions, so one does not have to contact the company directly and can solve the problem himself/herself.

One can also subscribe for a newsletter so they stay up-to-date with the company's offers and developments. All four of the companies discussed in this paper use blogs to communicate news and changes to their users, which is one way they communicate with them. These blogs allow the companies to post news, tips and featured users on a social platform, where others can comment and learn. It adds depth to the service, where users can talk about the post and its contents in the comments section below. This spreads knowledge and allows the users to learn from each other. Not only are the blogs good for the users of the product, but allow the creators to receive valuable feedback on changes or ideas that they might be planning (Hsu and Lin, 2008).

Proposition 5: The company needs to automate its customer support in order to eliminate costs associated with serving personally every user of the product/service.

Partnerships

Partnerships are very important for freemium organizations. Since all freemium companies rely extensively on word of mouth, Facebook is an important partner for all of them.

Companies such as Zynga would not be able to exist if they were not operating in a close collaboration with social networking sites such as Facebook.

The integration of Skype and Facebook contacts, as mentioned in the case presentations, into one single software client proves the importance of having a huge and established partner.

All of the presented cases rely extensively on payment processing companies such as PayPal. Furthermore, with the invasion of mobile devices such as smartphones and tablets, it is crucial for freemium-based companies to establish partnerships with mobile devices manufacturers so the freemium products and services are able to run on their platforms (such as iOS android, Windows Mobile, etc.)

Proposition 6: Partnerships with manufacturers of mobile devices and payment processing companies are essential for freemium companies' success.

Cost Structure

One of the major dilemmas that many freemium businesses have is that they must provide services which cost them money to people who do not pay. That is why it is imperative that the business can keep their operating costs per user as low as possible so that the money earned from the premium users can subsidize the free. Take Dropbox for example, their free users do cost them money, but very minimally. It does add up though and that is why it is important to break even on the free versus paid users. Because freemium gains most of its customers by giving away the service, the service itself must be extremely cheap. That is where the decreased cost of storage and bandwidth comes in as mentioned earlier in the theoretical part of this paper. Every day technology advances and it becomes cheaper to connect via the Internet. Storage costs also decrease as time goes on, allowing companies to store their customers' data at lower costs than before. Both of these factors help freemium businesses consistently lower their operating costs, creating higher profit margins.

The whole idea of freemium has been stated quite often in this paper, but it cannot be stressed enough how important it is to have a good ratio of free to premium users. It is so incredibly critical to track the metrics to make sure that the business is not spending money on acquiring new users that will most likely not pay for the service. Businesses need to see where their new visitors are coming from, i.e. what methods of attracting new users works. Do the most visitors/ new users come from advertisements, or word of mouth? How many people sign up for the service once they are on the homepage, or more commonly called the conversion rate?

These are just some of the questions that need to be answered before and in the beginning of the service's life cycle.

Proposition 7: It is critical that a freemium business keeps its operating costs as low as possible for their free users.

Proposition 8: It is important for freemium businesses to keep a close track of their metrics and measure the costs of their services.

Adoption Lifecycles

The adoption lifecycle of each company is quite different. We mentioned earlier in the theoretical chapter that there is many times a gap between the early adopters and the early majority and that gap is a different width for each company. Skype and LinkedIn both have a narrower gap than Dropbox and some of Zynga's games. It can be argued that Dropbox is actually still bridging the gap or has just crossed it and is in the early majority part of their lifecycle. Dropbox has been actively trying to close the gap quickly without spending any money with advertising by using the referral system to gain mass appeal for their product and from the data we have gathered, it is working.

Skype and LinkedIn are well beyond their respective gaps between early adopters and early majority. In fact, it can be argued that Skype is rather mature and into the late majority category in the lifecycle. Skype is now at a point where it is no longer being discovered by people, but being actively introduced to others by users, putting it into the late majority.

LinkedIn would be beyond the gap as well, but still in the early majority section of its life cycle. LinkedIn will always be gaining new users as it is for people in professional workplaces and new college graduates each year adds millions of potential users. LinkedIn is popular in the workplace, but it has also not reached the point where everyone is using it or talking about it. That is why we classify it as being in the early majority section of the lifecycle bell curve.

Zynga is interesting because their products have individual adoption lifecycles. It would not be feasible to go into each game individually, but Zynga's products all have very extreme adoption lifecycles. They are compressed with sharp rises in popularity and a very obvious peak with a sharp decline. Zynga knows this and realizes that they have to keep constantly creating or acquiring new content as not to lose customers as they become tired with the

games. As mentioned in the theoretical part of this thesis, content such as music, movies and games devalues quickly in the digital world. Zynga's business is the proof for that trend since supply of online games grows exponentially and demand which is consumers and their time is relatively constant.

In this paper, we wrote about the adoption lifecycle and how many products in today's digital age have a gap between the early adopters and the early majority. It is imperative that a freemium business keeps that gap as small as possible, otherwise the service may not reach the required amount of people to break even. All four cases analyzed in this paper have their own unique ways of having the users of their services reach out and spread the services via word of mouth. The users of Skype benefit themselves if others pick up the service, create accounts and are actively on Skype. Dropbox gives extra storage space to those that refer others to the service and sign up. LinkedIn is a networking service in itself, making those users that use it want to expand their circles with other people, sending those who are not currently signed up for the service notifications to try LinkedIn via email. Zynga, as has been stated, publishes the scores and achievements to Facebook for all of the user's friends to see, hopefully attracting them to try the games themselves.

Providing a service that people need for a long time ensures that the service is sustainable with users. All of the companies analyzed in the cases are long term services with the exception of games offered by Zynga. Zynga offers games which will eventually have its users lose interest in them, but in order to counter this, Zynga creates and acquires new games to keep its lineup fresh. Zynga still supports its games even after losing its surge of popularity and the late majority join in on the life cycle. There is still money to be made off of the late majority and even the laggards, but it steadily decreases and creating others. Offering a freemium service for something that is not used almost every day for years by people is very difficult. Skype, Dropbox and LinkedIn offer services that people will use for a long time. They are not just temporary solutions or tools for a small problem, they stand alone as products that will last and have value for a prolonged lifetime.

Proposition 9: The key concept of freemium is to provide customers with a product or service that gives them continued value through the entire lifetime of the product or service.

6. Conclusion

In this thesis we explored the freemium business model and how the companies that employ it create value and became successful. The most exciting finding is that freemium is a working business model and companies are implementing it successfully, revolutionizing the way consumers expect an online company to offer their products or services. However, success is based on, but not limited to, the findings that we proposed in this thesis.

One of the best features of freemium is that it can be considered as a marketing instrument that stimulates word of mouth - Dropbox goes even further by employing affiliate marketing techniques that reward their customers for bringing in new users.

Since using freemium as a business model involves giving away products or services for free forever, it is critical for companies to measure and keep track of all the financial metrics to ensure that what they are giving away does not cost more than the revenue generated by the premium version of the product. It is logical to conclude that a key measurement for success would be the rate of people converting from free to paid users, but this thesis shows that actually the value through the entire lifetime of the product or service should be considered as the most important measurement of success.

In order for freemium to work, the premium users have to compensate for the free users, as well. Since most of the users of a freemium product or service are free users, costs must be kept low and the market for that particular product or service has to be huge. Otherwise, it would be extremely expensive for people to use the premium version.

Researching freemium in terms of business model theory, different concepts of free, difference between products and services in the digital world, etc., made us understand the fundamentals of the way freemium works. It can be concluded that freemium can be extremely powerful instrument but it is crucial for companies to understand its fundamentals and how it would apply for a particular organization. Consequently, the proposals can be used for designing business models based on freemium.

6.1 Contribution to Theory

We complement Anderson's (2009) work with theory and real world cases discussing the viability of freemium as a business model in the digital marketplace. We also argue with Teece's (2010) view of the subject that it is still not clear whether the freemium business

model is a viable way to run a digital business. In our unanimous opinion, the examined case companies are all successful, meaning that they were able to attract a huge number of customers and gain mass popularity in their respective industry worldwide. Two of them are profitable as well. As a result, freemium can be successfully implemented when designing a business model if the building blocks are taken into a careful consideration.

The major contribution of this thesis is in the freemium business model theory which is practically non-existent and we believe they have added the first insights into the subject. Furthermore, it has been revealed that freemium can be successfully used as a marketing tool in order to attract as many new customers as possible by emphasizing the free service they provide. It stimulates word of mouth as users speak to each other about the new free service and the more unique but beneficial the product is, the more it generates buzz about the product.

Nevertheless, the finding that a freemium company needs a large market and not a niche one, contributes to strategic marketing literature. As mentioned in the theoretical chapter of this thesis, products and services differ in the real world and the virtual world, so this issue has to be addressed when deciding whether to use freemium as a business model and the overall strategy of the firm of creating and maintaining competitive advantage.

Last but not least, the automation of customer relationships expands on the literature about customer relationships management of freemium companies. Not having to employ a lot of personnel to take care of individual problems that may arise with the usage of the service saves costs for the companies which is so crucial for them to be able to provide service for free for a massive number of customers.

6.2 Managerial Contributions

One can see that throughout the analysis, we have come up with nine propositions that are easily adapted into current managerial handbooks in order to improve a freemium business. Many things may be overlooked by people running a freemium business and even though some may be tiny, they add up to allow inefficiencies. By reading the thesis, we hope that managers in the digital industry can gain a better understanding as to why certain aspects are critical to gain the success that the four case companies studied have, instead of just guessing what is the right way to work in the freemium industry.

6.3 Limitations

Some limitations of the research have to be noted. First, interviews with successful companies are hard to get since this research on freemium is conducted entirely in non-intrusive way and it is relatively difficult to obtain the information required for illustrating the case companies. The absence of enough rich data might lead to weak conclusions. Successful freemium businesses are now very large and speaking with someone beyond customer support is difficult to manage, since students doing a thesis about them is not high at all on the priority list of helping.

Second, information is public, hence it might have been manipulated for commercial purposes. A lot of information out there is for promotional reasons and this can be spun to highlight the good aspects of companies or businesses. It is hard to find totally unbiased information, especially if the information found were to come from the company itself. When listening to talks that someone from a specific company is doing, it is important to understand if the talk is just propaganda for the product, or an actual informational talk to educate the listeners.

Third, as mentioned earlier in the methodology part of this thesis, triangulation and respondent validation could have been employed if time was not restricted in order to maximize the internal validity of this research.

6.4 Future Research

There are some gaps that exist in the contemporary research of freemium. It is not really clear to what extent companies that employ the freemium model are more profitable than companies who strictly charge for their digital products and services (if more profitable at all). There should be more comparative studies on that issue. Another aspect of freemium worth further research is how does it differ from the traditional marketing technique to popularize a company's product or service? How would a digital economy look like if all products and services go freemium? It is obvious that word of mouth and Web 2.0 in particular is one of the reasons for success of freemium but would it still be viable in the near future when Web 3.0 will appear? In other words, how sustainable is freemium?

How do companies decide how much to give away from their products and services for free? Since premium users pay for supporting the free and the later quite often get incentives for promoting the products or services of freemium companies (such as Dropbox that gives away

extra 500MB for referring a new customer) another question appears - how does freemium differ from multi-level marketing or pyramid scheme that are proven unsustainable and even illegal business models in some countries.

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