

# UiO : Centre for Entrepreneurship

## University of Oslo

### *Exploring the Freemium Business Model*

#### **MSc in Innovation and Entrepreneurship**

Erlend Vihovde Reime

May 20<sup>th</sup> 2011





# Exploring the Freemium Business Model

MSc in Innovation and Entrepreneurship

-

Erlend Vihovde Reime

-

Oslo May 20<sup>th</sup> 2011

University of Oslo

© Erlend Vihovde Reime

2011

Exploring the Freemium Business Model

Erlend Vihovde Reime

<http://www.duo.uio.no/>

Print: Reprosentralen, Universitetet i Oslo

# Abstract

This thesis is exploring the Freemium business model, answering how a Freemium model is defined and how it works in real-life. It discusses the original definition by Fred Wilson, and present the context where the Freemium business model is used, Internet services in the Web 2.0. It also looks at how customers react to free services and the Internet. After this, the three main directions within business strategy theory are explored: Industry-based competition, Firm-specific Resources and Capabilities, and Institutional Conditions and Transactions. The concept of business models is discussed by looking at different definition and analytical frameworks. A few generic business models that are using the concept of “free” are presented, before returning to the Freemium model again. Other definitions of the Freemium model are being discussed here. Based on the theory on strategy, business models, and Freemium, a model of Freemium is presented leveraging the users role as co-creators of value and the importance of network effects. The key characteristics of the model are finally used in a case study of Skype and Spotify.

**Keywords: Freemium, Network Effects, Business Models, Strategy**



# Acknowledgement

First, I would like to thank my supervisor Tronn Skjerstad for believing in the idea from the beginning. All the feedback and support he has given me throughout this process has been a great help and inspiration. I have really enjoyed many of the discussions that we've had. This thesis would not have been written without him.

I would like to specially thank Olivia Lasky and Tom Krzewski for helping out with some last minute adjustments. I would also like to show my appreciation to all my friends that have been supportive over the last four months, especially those of you that have convinced me to take breaks and do other things. And to the nice people of the sixth floor of IF12 that I've shared study room with for making the last semester social and the long hours bearable.

Last but not least I would like to thank my family that have supported and helped me along the way.

Erlend Vihovde Reime

Oslo, May 20<sup>th</sup> 2011



## Table of Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Research Question</b>	<b>2</b>
<b>3</b>	<b>Theory</b>	<b>5</b>
3.1	Short about the Freemium Model	5
3.2	The Internet and Web 2.0	7
3.3	Free Service and Consumer Behavior	8
3.4	Strategy	9
3.4.1	Industry-based competition	9
3.4.1.1	Rivalry among existing competitors	10
3.4.1.2	Threat of Potential Entry	10
3.4.1.3	Bargaining power of suppliers	11
3.4.1.4	Bargaining power of buyers	11
3.4.1.5	Threat of Substitutes	12
3.4.1.6	Impact of the Internet	12
3.4.2	Firm-specific Resources and Capabilities	13
3.4.2.1	VRIO	13
3.4.2.2	Value Chain	14
3.4.2.3	Impact of the Internet	15
3.4.3	Institutional Conditions and Transactions	17
3.4.3.1	Porter's Diamond	17
3.4.3.2	Institutions	17
3.4.3.3	Culture and ethics	18
3.4.3.4	Impact of the Internet and Internet Communities	19
3.5	Business Models	21
3.5.1	Generic Types of "Free" Business Models	23
3.5.2	Discussion	25
3.6	Back to the Freemium Model	26
3.7	Key Features of the Freemium Model	31
<b>4</b>	<b>Methodology</b>	<b>34</b>
4.1	Research design	34
4.1.1	Case study	34
4.1.2	Unit of Analysis	35
4.1.3	Choice of Cases	35
4.1.4	Validity and Reliability	35
4.2	Data Collection	36
<b>5</b>	<b>Case study and Results</b>	<b>37</b>
5.1	Skype	37
5.2	Spotify	41
<b>6</b>	<b>Conclusion</b>	<b>44</b>
6.1	Main Findings	44
6.2	Practical Implications	44
6.3	Academic Implications and Further research	44
<b>7</b>	<b>Reference List</b>	<b>46</b>
7.1	Articles and Books	46
7.2	URLs	49
<b>8</b>	<b>Appendix</b>	<b>51</b>



# 1 Introduction

In 2006 New York venture capitalist Fred Wilson described in his blog what he called his “favorite business model”, where you

*“Give your service away for free, possibly ad supported but maybe not, acquire a lot of customers very efficiently through word of mouth, referral networks, organic search marketing, etc, then offer premium priced value added services or an enhanced version of your service to your customer base.”<sup>1</sup>*

Lacking a good name for this model he encouraged his readers to come up with suggestion, and one suggestion made by Jarid Lurkin was to name it *freemium*, a combination of the words *free* and *premium*<sup>2</sup>. The name stuck and since then it has continued as a commonly used term in blogs and magazines.

Freemium has received a lot of attention as it attracts many customers, and has been adopted by many services on the Internet today. It can be a potential business model in cases where users are choosing to download illegally pirated content rather than pay for it. Still the model needs to prove that it can be profitable, as many industries are skeptical to giving away their products and services for free.

In the second chapter I will present the research question, and explain why business models is important to explore. The third chapter presents theory regarding strategy, business models and subjects related to the Freemium model. Strategy is important to understand, as it is the foundation of business models. The chapter concludes with characteristics of the Freemium model that will be used to analyze the cases. In chapter four I present the methodology and the design of the case study. This study uses an exploratory design. Chapter five is a case study of Skype and Spotify where I use the characteristics found in chapter three. Chapter six is the conclusion of this study. This also includes practical implications and suggestions for further research.

---

<sup>1</sup> [http://www.avc.com/a\\_vc/2006/03/my\\_favorite\\_bus.html](http://www.avc.com/a_vc/2006/03/my_favorite_bus.html)

<sup>2</sup> [http://www.avc.com/a\\_vc/2006/03/the\\_freemium\\_bu.html](http://www.avc.com/a_vc/2006/03/the_freemium_bu.html)

## 2 Research Question

Why study new business models? According to Chesbrough, a new technology is of no value if you don't have a business model to commercialize it through. He argues that innovating and exploring new business models can prove to be just as, if not more important than innovating new products (Chesbrough, 2010). The study of new emerging business models is therefore important in understanding the success and failure of new innovations.

What I hope to achieve with this study is to find a definition of what the Freemium model is and what categories can be used to describe it, and then see how these categories can be used in describing real-life cases that are utilizing the Freemium business model. Freemium has become a buzzword in the online community, ranging from clear definitions of different variants of Wilson's definition, to definitions that include almost everything that is delivered free over the Internet. The first question I will answer in this paper is:

### 1. What is a Freemium model?

In order to analyze the Freemium model, I will first look at free products and services offered on the Internet. The basic premise for free products and services on the Internet is digitalization of content and that the process of duplicating a product, for that matter any content in digital form, has dropped to near zero. This has given way for damaging consequences like piracy and illegal downloading, but also opens up for new ways of doing business. Giving away something for free is not a new concept, and has been used in marketing and advertisement for decades, but free as an integrated part of a venture's operation has become a new trend, making Freemium a business model worth looking into.

Even the term "business model" was considered a buzzword a few years ago, and has only recently been acknowledged fully in the academic literature. David J. Teece describes business models as a conceptual model of a business (Teece, 2010). Although it is a relatively new term, every business has a business model they follow. The term was constructed when Internet businesses challenged the conventional way of thinking business, and the need for a more holistic description of a company's operation became necessary. In order to understand

the Freemium model I will need to explore the mechanisms of business strategy and the concept of business models.

Before looking at Freemium specifically, I will look at which other business models use free products and services. Most companies using Freemium employ hybrid models, utilizing some elements from Freemium and others to create and capture value. The second question to answer is:

## **2. How does a Freemium model work?**

In order to describe how the Freemium model works I will analyze the different characteristics and define what component that should comprise a Freemium model. Some characteristics are commonly acknowledged, while others vary between different definitions. By using the Freemium business model definition and its characteristic, I will explain how the Freemium model works in real-life cases.

Therefore a few sub-questions will be:

2a. When and for whom and what is Freemium a good model to use?

2b. When should Freemium not be used?

To answer this I will propose a framework to classify two cases that utilize the Freemium model. The cases I will look into are Spotify and Skype. Although they are different in regards to customers, product and the stage they are in, they have implemented variations of the Freemium model.

- Skype is often used as a success story when talking about the Freemium model. They provide free skype-calls between well over 500 million registered users. Their revenue comes from the service Skype-out, delivering calls to regular phones from Skype-clients. In 2010 they had an average number of 124 million active users and 8.1 million paying users (Skype S-1 Form, SEC, 2010). Skype is available on multiple

platforms and devices<sup>3</sup>. Skype is often used as an example of a successful Freemium model.

- Spotify was founded in 2006<sup>4</sup>, offering free streaming of music with commercial breaks. Premium offering removes the commercials, gives access to more music, and allows for use on mobile phones and other devices. Spotify has received a great deal of publicity because of their business model, which offers a free and legal alternative to illegal downloading of music. Spotify recently announced that they have reached one million premium user<sup>5</sup>, but it's still not clear if they are making profit.

---

<sup>3</sup> <http://about.skype.com/>

<sup>4</sup> <http://www.spotify.com/no/about-us/press/background-info/>

<sup>5</sup> <http://mediadecoder.blogs.nytimes.com/2011/03/08/spotify-cracks-the-million-user-ceiling/>

# 3 Theory

The goal of this chapter is to present the Freemium model, and then develop an understanding of strategy and the concept of business models. Based on this I will present a framework for further analysis of the cases that are being studied. I will also list some generic business models that might come close to or overlap with the Freemium model, to better make distinctions between them.

## 3.1 Short about the Freemium Model

The Freemium model is most common among companies delivering services online, and is often mentioned as one of the characteristic business models of the Web 2.0. As mentioned in the introduction the Freemium term was first coined by Jarid Lurkin and adopted by Fred Wilson, describing what Wilson called his favorite business model:

*Give your service away for free, possibly ad supported but maybe not, acquire a lot of customers very efficiently through word of mouth, referral networks, organic search marketing, etc, then offer premium priced value added services or an enhanced version of your service to your customer base.”<sup>6</sup>*

This definition describes a free service that allows for the acquisition of a large user base, and how these users are being acquired through different channels. It also points out that advertisement can be used as a supplement for revenue, but is not the main source of revenue in the model. The last point is that paying for a premium service is giving the premium customer features in addition to the ones that are available as a free user. They are not different services, but provide different levels of service. The key here is the conversion rate of users going from the free service to the premium service.

There are some different understandings about what a Freemium model is and what it isn't. I choose to not include free trials in the definition of Freemium. Free trials can be seen as a sales strategy and not a part of the whole business model. The free offer has to be sustainable

---

<sup>6</sup> [http://www.avc.com/a\\_vc/2006/03/my\\_favorite\\_bus.html](http://www.avc.com/a_vc/2006/03/my_favorite_bus.html)

and supported by the company's operation over time. This is in accordance with Wilson's original discussion around the model:

*And make sure that whatever the customer gets day one for free, they are always going to get for free. Nothing is more irritating to a potential customer than a "bait and switch" or a retrade of the value proposition<sup>7</sup>.*

Most definitions have focused on the first part of his definition, and neglected the latter.

The principle of one group of customers subsidizing another group of users is not unique. In fact the majority of Internet business uses this as a key principle in how they operate, from free websites supported by advertisement, to auction-sites where sellers pay to subsidize free access for buyers. The difference with the Freemium model is that these groups are offered different versions of the same product and there is migration between the two groups. The model is dependent on persuading enough users of the free service to be converted into paying customers of the premium service.

The whole idea is that the paying customers are subsidizing the free users. This is only possible if the production and distribution costs of the free service are near zero. In the digital economy, the price of processing speed, storage and bandwidth are steadily dropping, so once something has been developed in a digital form, the cost of producing ten or a million copies is practically the same.

The drop in price of processing speed and storage as a result of steady increases in capacity is referred to as Moore's Law. Gordon E. Moore, director of the R&D at Fairchild Semiconductors, predicted that the number of components on a circuit, and hence the capacity, would double every two years (Moore, 1965). This has since proved to be a reasonable estimate of price and capacity in the computer hardware industry.

Not only do the production costs have to be low or near zero, but so do the distribution costs, and any other costs the company needs to cover in order to deliver value to the customer. Services delivered over the Internet are therefore ideal candidates for the Freemium model.

---

<sup>7</sup> [http://www.avc.com/a\\_vc/2006/03/my\\_favorite\\_bus.html](http://www.avc.com/a_vc/2006/03/my_favorite_bus.html)

The definition by Fred Wilson, as mentioned above, gives some examples of channels that can be used for effectively acquiring new users. Word-of-mouth and referral networks are ways of utilizing the users online network, lowering the marketing costs and customer acquisition costs for the company. In organic search marketing the target group is reached more effectively by focusing on keywords utilized in search engines. These are very characteristic of the Web 2.0. A description of the Freemium model should also include some of the characteristics of this new Internet environment.

## **3.2 The Internet and Web 2.0**

The Internet has evolved from being a tool for effective communication to a platform for value creation, services and interaction in new ways no one had anticipated. Chris Anderson describes it as the difference between an atom economy and a bit economy, where the first describes trading tangible goods, and the latter information in digital form (Anderson, 2009). Tangible goods require input materials, often from limited resources, that are processed into tradable products. The price is made up of the input materials, the work of processing, delivering the product and profit margin to those involved. In the bit economy, the real value is information.

Two terms that are often confused are cloud computing and Web 2.0. Cloud computing is the shift from data being stored and processed on your local computer to data being stored and often processed on an external server (Wyld, 2009). This allows for easy access from any computer, and on multiple devices. It also shifts a lot of the required hardware upgrades from the end user to the companies drifting the servers, making it easier for users to adopt new services or switch between them without having to worry about anything other than a fast internet connection. Web 2.0 is the label put on a new generation of Internet services and web pages where users are involved in providing and organizing the content. Users are allowed to share content through video and photo sites, blogs and social news sites and social networks (Beuscart & Mellet, 2008).

The companies that are characteristic for Web 2.0, this “second generation”, have some core competencies identified by Tim O’Reilly (O’Reilly, 2007). First, they are delivering services, and not packaged software, also known as Software-as-a-Service (SaaS). These services are

also cost-effectively scalable. Secondly, they control data sources that are unique and hard to recreate, and that get richer as more people uses them. That the value of something increases with the number of users is called network externalities. Thirdly, they trust their users as co-developers, contributing with content or providing valuable feedback. The fourth competence is the harnessing of the collective intelligence, which is the content created and generally available to all members of a community. The fifth competence is leveraging the long tail principle through customer self-service, by decentralizing data management to the users and building an “architecture of participation”(O’Reilly, 2007: 22), reaching out to the entire web. The sixth competency is delivering software that is available on multiple devices. The last one is lightweight user interfaces and development models, making it easier for services and applications to be interoperable and loosely connected to other services and applications. This also creates a need for business models that supports this way of thinking.

### **3.3 Free Service and Consumer Behavior**

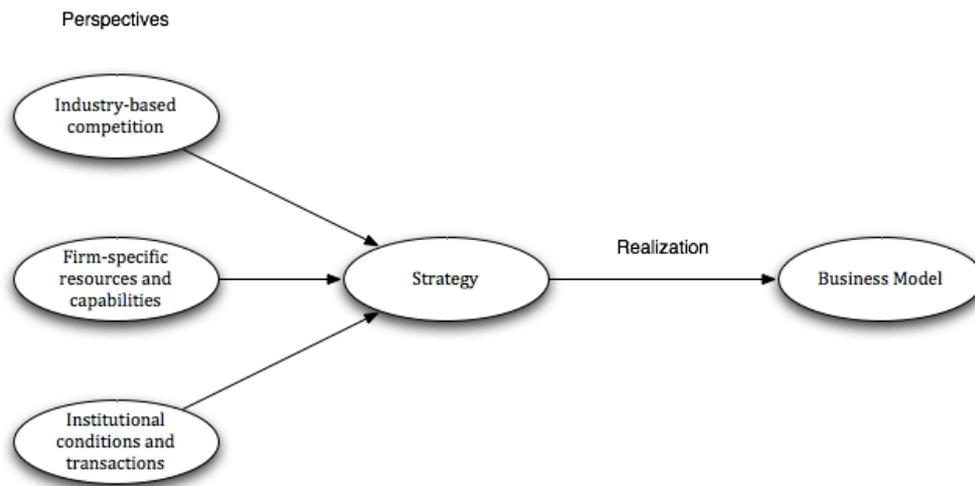
The Internet offers an abundance of services and offers to its users, and most of this is available for free. Internet has evolved through free content and services, and consumers have gotten used to this and expect free services delivered online.

Psychological studies show that people link a price on a product or service to a consideration of cost, no matter how small (Anderson, 2009). A person can very well spend hours searching in order to find the best price or the best product, though the amount saved doesn’t cover the time spent gathering information and making the decision. When something is free the consideration of costs is often bypassed, even in cases where using the product or service require an investment of both time and money.

The abundance of information and offers has also taught us that there are always other alternative services out there, either at a lower price, or completely free. We have gotten used to free online newspapers, free email services, free search-engines, free software, and free videos, just to mention a few services.

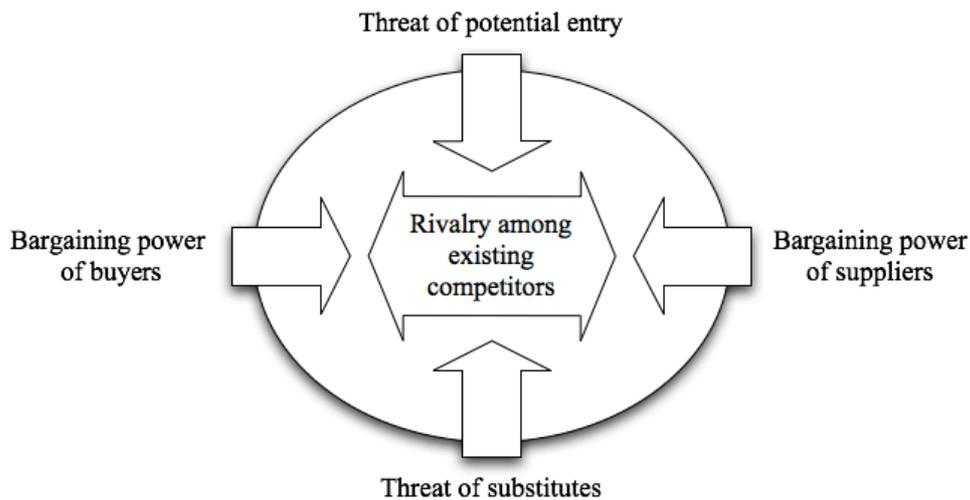
### 3.4 Strategy

The fundamental question in strategy research is “why do similar companies perform differently?” Researchers and practitioners have tried to answer that question through mainly three different perspectives: Industry-based competition, Firm-specific resources and capabilities, Institutional conditions and transactions (Peng, 2009).



#### 3.4.1 Industry-based competition

The industry-based competition-perspective looks at how a company is positioning itself against other competitors in an industry. The best representative of this perspective is Michael Porter with his five forces framework. The idea is that five forces are influencing a company’s performance and competitiveness. Those five forces are the rivalry among existing competitors, the threat of potential entry, the bargaining power of suppliers, the bargaining power of buyers, and the threat of substitutes. Understanding how these forces work together within an industry is important for making good strategic decisions and gaining a strong strategic position. (Porter, 2001)



### 3.4.1.1 Rivalry among existing competitors

A large number of competitors would indicate high level of rivalry, while a low number of competitors would more likely have a lower level of rivalry due to recognition of mutual dependence. Slow growing industries will also see more competition as the only way for a firm to expand is to capture market shares from other competitors. If the competitors are similar in size, market share and product, especially if the product is hard to differentiate, rivalry will be higher. Products that have low switching costs or where it is hard to leverage the customer's loyalty can increase rivalry. If one competitor or a new competitor changes the industry by providing a significant increase in production output, it will cause higher rivalry as well. High exit costs from an industry may cause competitors to stay and compete within an industry rather than look for opportunities elsewhere. If rivaling companies have very different strategies or ideas about how to compete, this can also cause heightened rivalry. (Porter, 2004)

### 3.4.1.2 Threat of Potential Entry

The potential entry of new competitors always threatens established firms in an industry. This threat is dependent on what barriers to entry exist within the industry (Porter, 2004). First if the industry has economies of scale, product costs will drop as the volume produced increases, and this will favor the established companies that already serve the market. Another related barrier could be capital requirements. If it takes huge investments in production facilities or inventory, it will be harder for new companies to enter the industry. Established

firms can use excess production capacity to lower prices and make it harder for newcomers to establish themselves.

Existing companies in an industry might also have higher product differentiation through strong brand and loyal customer base they have built up over time (Porter, 2004). Stronger customer loyalty can be achieved with products that are characterized by network externalities, meaning that the value of the product increases with the number of users. Companies that are successful in this can become market leaders or incumbents, and their products the industry standard (Peng, 2009).

Switching costs can be yet another barrier for new entrant. If a new company's product creates huge switching for the customer they might choose to stay with the established brands and products, even if the new product is superior in quality. Switching costs include training, testing, compatibility with other equipment, or other additional costs. Intellectual property rights can also act as a barrier for new entrants. This is referred to as cost disadvantages independent of scale (Porter, 2004). Other such advantages are favorable access to raw material, locations, or specialized knowledge. In some cases there are laws and regulations that favor the established firms and creates a barrier for new entrants.

#### **3.4.1.3 Bargaining power of suppliers**

Bargaining power of suppliers will be high if there are few suppliers to choose from or if the product is so specialized and unique that there are few other suppliers that can deliver it. Another cause of high bargaining power of suppliers is in cases where the firm is not an important or prioritized customer of the supplier. Lastly there is the threat of a supplier that is able and willing to integrate forward and becoming a competitor to the firm in question. (Porter, 2004)

#### **3.4.1.4 Bargaining power of buyers**

Similar to the suppliers, if there are few buyers that a company sells their product to, the bargaining power of those buyers is high. If the product offers little benefit or enhancement to the buyer, or if the product is a standard product that has low or no differentiation, the buyer will also have high bargaining power. Similar to the supplier there is a threat that a buyer can integrate backward and become a competitor given the ability and will to do so. Buyer power

influences the price a firm can charge for a product or service, but can also influence other costs and investments, e.g. demand for high quality customer service.

#### **3.4.1.5 Threat of Substitutes**

A substitute is a product that is not a direct competitor, but is serving the customer's same need. The threat of substitutes is high if the substitutes are superior in quality and function, or if the switching cost from the product in question to the substitute is low (Porter, 2004).

#### **3.4.1.6 Impact of the Internet**

The Internet has had a profound effect on society and industry for the last decades. This also affects strategy. The Five-forces model was developed to describe traditional industrial conditions, where raw materials are processed into tangible products that are shipped and sold to customers. The Internet has created markets where this is no longer the case. It has dramatically increased access to information and expanded markets previously limited by geographical location.

In 2001, Porter wrote about the effects on his Five-forces model, and how the Internet affects all the forces (Porter, 2001). The intensity of rivalry among competitors goes up due to widening of geographical markets, giving more competitors. Easier access to information, and lower variable costs creates pressure for competition on price. Barriers to entry are reduced with easier access to distribution channels, and less demand for physical assets and organization. Applications and software are also harder to keep proprietary in an industry where new solutions and technology are constantly being introduced. Bargaining power of suppliers will be affected by giving companies easier access to other suppliers, but also by allowing suppliers to reach new customers. Bargaining power of buyers that operate as intermediaries goes down because Internet can provide easier communication between producer and end user. However, this on top of reduced switching costs causes bargaining power of the end user to go up. The threat of substitutes is weakened as a result of increased efficiency and expanding markets, but the Internet can also create new unforeseen substitution threats.

### **3.4.2 Firm-specific Resources and Capabilities**

While the previous view on strategy focused on an outside-in approach based on the surrounding industry, this view focuses on the resources and capabilities of the company, representing an inside-out perspective. The most important contribution here comes from Barney with his VRIO-framework. A critique to the industry-based perspective and similar models have been that they assume that firms have equal access to resources, and that these resources are mobile within an industry (Barney, 1991). If this was the case then every firm would have the same information and implement the same strategies simultaneously. This way none would be able to gain a competitive advantage.

#### **3.4.2.1 VRIO**

Resources and capabilities include financial, physical, human, and organizational assets. Financial resources are debts, equity or kept profit. Physical resources include equipment, machinery, production facilities and buildings used by the firm in their operation. Experience, wisdom and knowledge are examples of human resources. Organizational resources can be both formal and informal. Formal organizational resources can be management control systems or the firm's reporting structure. Informal organizational resources include a firm's history, reputation, and organizational culture. (Barney, 1995)

By looking at the firm's resources, strategic analyses are being complemented giving a better foundation for strategic decisions. One common analysis is the SWOT, where a firm's strengths, weaknesses, opportunities, and threats are assessed according to the industry they are in. The resource-based view sees a firm's asset as strength or weakness based on the threats and opportunities the firm is facing. The VRIO-framework helps determine if a resource is a source of competitive advantage by asking if that resource is valuable (V), rare (R), imitable (I), and well utilized by the organization (O) (Barney, 1995).

A resource is considered valuable if it enables a firm to exploit opportunities, neutralize threats, or both (Barney, 1995). The question of value is an important first consideration. If a resource does not bring value, it might drain on other resources in the firm and can therefore even be considered a weakness. A resource can lose its value if the environmental conditions change.

A resource is considered rare if there are few or no other competing firms that have access to it (Barney, 1995). A resource can be valuable, but if it is also possessed by a number of other competing firms, there is little chance that any of them can gain a competitive advantage from it. If a resource is both valuable and rare it can be a source of competitive advantage for the firm.

A firm's resource is inimitable if competing firms are not able to duplicate it. If a resource survives competitors' attempt to copy it and remains both valuable and rare it can be a source of sustained competitive advantage (Barney, 1995). There are mainly three different reasons that make it difficult for other firms to copy a specific resource. The first reason is historic events. If the firm has acquired a resource as a result of certain event or during a period of conditions that are no longer present it would be impossible for competitors to copy this resource. The second reason is the importance of small decisions. If the competitive advantage comes as a result of a numerous small decisions, the source of this advantage will be almost impossible for competitors to identify. This is also referred to as casual ambiguity (Barney, 1991). The last reason is socially complexity. This describes typically informal resources such as a firm's reputation, trust, or organizational culture. These are resources that are often too complex for a competitor to replicate.

Lastly is the question of how a firm is able to organize to best utilize a given resource. Many organizational resources can be referred to as complementary resources because they cannot be a source of competitive advantage by themselves, but once bundled with other resources they help the firm to fully utilize the potential (Barney, 1995).

#### **3.4.2.2 Value Chain**

Another analytical approach often used within the resource-based view is doing a value chain analysis. This analysis looks at the different activities a company is performing in its operation, and how these activities work together as a whole to produce value. These activities are categorized into primary activities and support activities. Primary activities are again divided into inbound logistics, operations, outbound logistics, marketing and sales, and service. The primary activities are all activities directly involved in producing the product, marketing, delivery, and customer services. Support activities are divided into firm infrastructure, human resource management, technology development, and procurement.

Support activities are all the activities that must be in place for the primary activities to function properly. (Porter and Millar, 1985)

The value chain sees how all the activities are linked together as a whole, and is therefore an important tool in seeing how changes in one might affect another. For the whole value chain to be optimized and give a competitive advantage, trade-offs between activities may be required. A more costly production methods can make a product of higher quality and again cut down on customer service and support, making more profits in the long run. (Porter and Millar, 1985)

A company's value chain is part of a value system when being linked to supplier's value chain, buyer's value chain, and the value chain of distributors. Optimizations can be made here by better synchronizing activities between the firm and the supplier or distributor, e.g. "just-in-time" deliveries. Better understanding and ways of effecting links between different value chains in the value system benefits all parties (Porter and Millar, 1985).

### **3.4.2.3 Impact of the Internet**

Due to the easy flow of information provided by the Internet, many administrative services that had to be done in-house can now be outsourced to companies providing these services online, drastically lowering the costs for many companies.

Although Porter's value chain is a good description on how a company in a traditional industry produces and delivers, it has been criticized for not being able to describe the value creation of many Internet services. Amit and Zott suggest a model for value creation in e-businesses with four dimensions (Amit and Zott, 2001). Efficiency is the first dimension. When transaction efficiency increases, costs per transaction decreases, and you get more value as a result. Internet increases efficiency by reducing the information asymmetry between parties in a transaction, and enable faster and more informed decision-making. It also allows for a greater selection at lower costs, due to easier access to scale economies, and streamlining the supply chain. Secondly, Internet allows for easier access to complementary products and services. These can be both horizontal and vertical complements, between technologies or activities, or off-line services that are complementary to on-line services.

Third dimension is the possibility for lock-in mechanisms. This can be switching costs related to customer loyalty, a dominant design, trust and reputation, and the allowing customers to customize products and services to their needs. Other lock-in mechanisms are network effects; direct or indirect network externalities that add value for the customer. Last dimension is the question of novelty. Not only do new product and service innovations create more potential value, but Amit and Zott also find that e-businesses innovate in the way they do business (Amit and Zott, 2001). These four dimensions don't only increase value, but have positive effect on each other giving a potential joint effect from all four forces working together. This is the foundation for their business model discussed later in this chapter.

### **3.4.3 Institutional Conditions and Transactions**

The third perspective argues that a firm needs to consider the institutional framework, society and culture it operates in, in addition to the other two perspectives. This has become more pertinent as firms are expanding or outsourcing to other countries around the world.

#### **3.4.3.1 Porter's Diamond**

Porter uses a model depicted as a diamond to show the effect the location and environment has on strategy. The model has four main components. First is the context for firm strategy and rivalry. This component is roughly the five-forces model described above. Second is factor input conditions. The input conditions refer to all natural resources, capital, infrastructure, research, technology and human resources that are available. This all has to be measured by quantity and cost, quality, and degree of specialization. The third factor is the presence of related and supporting industries. This includes both suppliers and competitors. The last factor is the demand conditions. Listening to local and sophisticated customer demands can be important when expanding to new areas. Local needs can give guidelines to what to expect in new markets, or unusual demand in the local market can indicate specialized segments that can be served on a global scale. (Porter, 2000)

#### **3.4.3.2 Institutions**

The institution-based view gives two core propositions (Peng, 2009). Firms make strategic decisions and choices within formal and informal institutional constraints. Secondly, institutions reduce uncertainty and provide some level of predictability that allows for planning. Reducing uncertainty is the most important function of an institution. Uncertainty can cause transaction costs, the cost of doing economic transactions. Transaction costs is the economic counterpart of mechanical friction (Williamson, 1981). Misunderstandings, delays in delivery, breakdowns in production and other malfunctions in the transaction between two parts, can all be reasons for uncertainty. If the transaction costs are high, it can cause some transactions to never be made.

Institutions are both formal, with laws, regulation, and rules, and informal, including norms, cultures and ethics (Peng, 2009). Sociologist Richard Scott has identified three pillars that support institutions. The regulatory pillar supports formal institutions and operates with an

instrumental logic, coercing those within the institution to follow rules, laws and regulations under the threat of sanctions. Actors' actions can be explained as rational decisions based calculations on rewards and penalties. (Scott, 1995)

The normative pillar and the cognitive pillar support informal institutions. The normative pillar includes norms and values that guide actors in what is expected of them within the institution. This also constitutes roles for specified positions. The logic that guides action is appropriateness, determining what is the proper action expected of someone in a certain situation. The cognitive pillar relates to the social meaning that is constructed and maintained through social interaction, and often taken for granted. Actors make decisions based how they are convinced that "it should be". (Scott, 1995)

### **3.4.3.3 Culture and ethics**

One very important form of informal institution is culture. Culture is defined by Hofstede as a "collective mental programming: it is that part of our conditioning that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups" (Hofstede, 1983). Understanding how different cultures interpret symbols and positions is valuable in strategic planning, and may very well be the difference between success and failure.

An important part of all institutions, and the foundation of the three pillars described above, is ethics. It refers to norms, principles, and standards that structure actions within an institution. The rules that are regarded as necessary by the general society are constituted in formal laws and regulations. Thomas Donaldson has articulated three principles for guiding companies to follow ethical behavior:

- *Respect for core human values, which determine the absolute moral threshold for all business activities.*
- *Respect for local traditions*
- *The belief that context matters when deciding what is right and what is wrong.*

(Donaldson, 1996:2)

Companies shouldn't only focus on their own ethical behavior, but also pay attention to the ethics of their surroundings. The problems arise when different ethical and cultural convictions clash.

#### **3.4.3.4 Impact of the Internet and Internet Communities**

Culture is no longer restricted to local geography, but also represented in communities with an online presence. Companies that are delivering services on the Internet need to understand the culture of these online communities similar to a company operating in different countries needs to understand the local culture.

Online communities, especially those involved in open source software can benefit companies in different ways. By either establishing communities, or participating in existing ones companies can gain advantages from collaboration with the users of the community (Dahlander, 2007). Communities established by companies, once they have a critical mass, can help the company with identifying bugs, develop new functionality, and aid other users with service related issues. Communities can also stimulate word-of-mouth and create public awareness, decreasing marketing costs. Communities can also create lock-in effects of the participating users. Establishing a new community may require a lot of resources, but can prove to be a good investment if successful. Companies might also establish business models the closely follow existing communities, benefiting from collective knowledge, new technology and spillover effects.

Online piracy is regarded as a huge negative consequence of digital distribution on the Internet. Despite the ethical and legal issues related to these communities, studies have shown that there are positive effects as well. Companies that simply dismiss these communities as lawbreakers might miss out on valuable insight, especially in new technology and business opportunities. Online piracy has affected innovation and the creation of new legitimate businesses in four ways (Choi and Perez, 2007). These communities have proved to be pioneers in using new technology, such as file-compressing and file-transfer technology. They have been a source of new market insight and uncovering new, unmet consumer needs. There are also examples of these communities laying grounds for new markets, such as online music distribution. Lastly, they have created new opportunities that have been the source of new businesses and business models to emerge.

A moderate degree of piracy can also in some cases have a positive impact on business by increasing the size of the user base, creating a larger market for complementary products and services, and also spreading the product more efficiently through new channels, directly targeting potential users, shifting acquisition and distribution costs from the company to the users (Conner and Rumelt, 1991). There are examples from the game industry where collaboration between piracy communities and software companies that have been highly successful. Programmers in these communities have unlocked and modified games, but instead of prosecuting them, the companies have initiated collaboration, resulting in commercially successful launches of these modified games (Choi and Perez, 2007).

Piracy isn't only restricted to closed communities. A study from the UK showed that only 5-6 % of young Internet users saw downloading copyrighted music and movies as morally wrong (Freestone and Mitchell, 2004). Most of these people choose pirated music and movies out of convenience and low risk. The choice of piracy takes three factors into account: the value of the product, the cost of the product including the risk of being caught and prosecuted, and the price of acquiring the product in a legitimate way (Conner and Rumelt, 1991). Some people they don't consider download stealing, because it don't deprive the owner of anything but the missed opportunity of a potential sale. Delivering legitimate free products and services to this group of consumers can give them a more attractive alternative where they don't risk breaking copyright laws.

### 3.5 Business Models

With the emergence of the Internet economy, traditional economic, management and strategy theory had issues in explaining and describing new forms of value creation, intangible products and distribution channels. The concept of business models was proposed as a description of the total value creation of a company. Sadly it was misused and misunderstood by many early Internet companies as a substitute for business strategy, and this caused some skepticism around the term. A faulty belief that you didn't need strategy once you had a winning business model caused many companies to fail. As McGrath points out: "old-fashioned ideas like having profits [...] continue to matter" (McGrath, 2010:247). Without contingency strategies it is hard to be aware of signals that you are operating with a faulty business model, what the weaknesses are, and how you can change it in time. However, used as a strategic tool the business model provides valuable insight for managers in operations and planning. Much of the literature on business models focuses on defining the concept of a business model, listing generic types that can be used to classify different businesses into generic types, or describing the different components that comprise a business model.

Magretta sees the business model as a narrative story. It answers who the customer is and what the customer values. It also answers how the company will make money, and explaining the underlying logic of how value is delivered to the customer at an appropriate cost (Magretta, 2002). That way business model is grounded in the primary activities of the value chain. This story needs to be told and believed both inside and outside of the company. It needs to be believed by customers and by potential investors, but it also needs to be believed and followed by the people in the company. As an internal planning tool it helps different focus the attention on fitting every element of the business together as a common whole (Magretta, 2002).

Casadesus-Masanell and Ricart argues that a firm's business model is a "reflection of its realized strategy" (Casadesus-Masanell and Ricart, 2010: 205). A business model is the result of strategic planning, but different from both strategy and tactics. In their model strategy refers to the choice of business plan in which the firm will compete in the marketplace and also formulates contingency plans, while a business model describes the operational logic and value creation in the firm. Tactics refer to the choices that are available within the chosen business model.

McGrath sees a business model as an important analytical concept that allows managers to get an outside-in perspective on the company's operation. Through a business model all activities and resources are viewed in how they best serve the purpose of the company, which is to deliver value to the customer, without going into a detailed level of every activity that is being performed. A business model describes two core components: the unit of business, and the key metrics (McGrath, 2010). A unit of business is the product or service the company is offering to their customer. The reason for referring to it as a unit of business is to avoid any limiting conceptions of what a company can offer. The second part of the business model, the key metrics, refers to performance measurements monitoring the processes or operational activities that are affecting critical performance variables in the value chain.

Amit and Zott defines business model as a representation of “the design of transaction content, structure and governance so as to create value through the exploitation of business opportunities” (Amit & Zott, 2001). This definition has three parts; content, structure, and governance. Transaction content includes goods and information exchanged, and resources and capabilities that enable the exchange. Transaction structure includes the parties involved in the exchange, the sequence of activities, and how they are linked. Transaction governance refers to how different parties control the flow of information, goods, and resources. Linked together with the four dimensions of value creation for e-businesses, they propose a business model framework that can be used to describe how its participants enable a transaction, and how value is created in this process. However, it doesn't describe how value is being captured, but chooses to keep revenue model and business model separate, making it hard to describe the Freemium model.

To Teece, a business model “defines how the enterprise creates and delivers value to customers, and then converts payments received to profits” (Teece, 2010:173). He describes it as a conceptual model of a firms business, bridging many different disciplines, e.g. social science and business. Chesbrough has a similar view of business models. To him a business model describes how a business creates value and how it captures value. His business model encompasses six functions: articulate the value proposition, identify the market segment, define the value chain structure, specify revenue generation with estimates of cost structure and profit potential, describe the position of the firm within the value network, and formulate the competitive strategy (Chesbrough, 2006).

The Business Model Canvas by Osterwalder and Pigneur has become a popular tool for managers, innovators and entrepreneurs. It describes a business model comprised of nine building blocks. Together these building blocks describes the logic of how a company intends to make money, and covers customers, offer, infrastructure, and financial viability. The nine building blocks are customer segment, value proposition, channels, customer relationship, revenue streams, key resources, key activities, key partnerships, and cost structure (Osterwalder and Pigneur, 2010). The customer segment describes the specific group or groups the business model is aiming to serve. The value proposition describes the products and services creating value for the customer segment. The channels include all communication, distribution, and sales channels between the company and its customers. Customer relationship describes how new customers are acquired and how existing customers are retained. Revenue streams are how a company generates revenue from a customer segment. Key resources and key activities are the most important assets, and the most important activities a company uses to operate the business model. Key partnerships include potential suppliers and partners that the business model depends on. Lastly, the cost structure is the costs required to operate the business model. The sum of costs and revenues gives the profit of the business model.

### **3.5.1 Generic Types of “Free” Business Models**

Anderson defines four business models that use “free” (Anderson, 2009). The first one is Direct Cross-subsidies. This model gives away free products or services because they are bundled up with other high profit products or services. The price isn’t always as clear to the customer, but the customer is in the end paying the cost of the free product. The second model is what he has called the Three-party Market, where the free product is typically paid for by advertisement or other third parties. The costs of free, once again ends up with the customer. This is the most common model behind free services on the Internet. The third one is Freemium, which has already been presented. The fourth is Nonmonetary Markets, which can take different forms, but the most important ones are The Gift Economy, Labor Exchange, and Piracy. In the Gift Economy people contribute in creating value out of choice. Open source software and Wikipedia are great examples of this. The motivation for doing this can be everything from prestige to simply for fun. The Labor Exchange is based on making the customer do small tasks in order to receive a free product or service, e.g. filling out a survey

before entering a website. Piracy is not a business model, but included in Nonmonetary Markets. Piracy has already been described in the strategy part of this chapter.

McGrath argues that in her model “free” can be a unit of business. Examples of this are advertising, cross-subsides, promotions, barter, gratis, and Freemium (McGrath, 2010). In the advertising model something can be offered users for free, because advertisers pay for access and attention of those users to deliver them messages of their products and services. Cross-subsidization is when a product is given away for free in order to sell another product with a high profit margin. A famous example of this is Gillette giving away free razors in order to sell more razor blades, or phones given away to sell expensive subscriptions. The promotion model gives something away for free in order to market or sell something completely different. The barter model allows for free products or services in exchange for something that is valuable for the company. A typical example is giving away products in exchange for valuable feedback and information. In the gratis models a product or service is given away for free because the people involved developing the product or service enjoy contributing. This is also referred to as the “gift economy, mentioned above. I will get back to the Freemium more in detail later.

### 3.5.2 Discussion

Casadesus-Masanell & Ricart	McGrath	Teece	Magretta	Amit & Zott	Chesbrough	Osterwalder & Pigneur
Value Creation	Unit of Business	Create Value	Customer	Content (Goods, Products, resources)	Value Proposition	Customer Segment Value Proposition
Operational Logic	Key Metrics (Performance of Value Chain Activities)	Deliver Value	Customer Value	Structure (Customers, Value Chain Structure)	Market Segment	Channels
		Convert Payment to Profit	Revenue Stream	Governance (Parties Controlling Flow of Content)	Value Chain Structure	Customer Relationship
			Value Delivery		Revenue Generation (cost structure and profit potential)	Revenue Streams Key Resources
					Position in Value Network	Key Activities
					Competitive Strategy	Key Partnerships
						Cost Structure

The business models presented range from conceptual descriptions of business models, to more detailed framework. Models representing the first are put in the left side of the table, the latter are on the right. There are still none of the models that fit with the value creation that can be drawn from user involvement. Following the view of a business model as a realization of the value chain's primary activities, makes sense in a traditional industrial setting, but value creation in a digital context are often more complex, involving different parties and resource, and with less structure.

In a traditional industrial setting, production is one of the key activities, but in a digital industry the cost of the product lies with the development and maintenance of the infrastructure. Once the product has been developed, the costs of producing new copies of it are insignificant. There are costs related to maintenance of the platform that the service operates on, but these costs are not linear to the number of users. The actual value of the product are often related to user created content and network externalities, making the value creating process a collaboration between the company and its users.

## 3.6 Back to the Freemium Model

“In the Freemium model, a basic version of an offering is given away for free, with the hope of eventually persuading sufficient numbers of customers to pay for a more advanced version”(McGrath, 2010). What’s interesting with this definition is that it describes the sustained delivery of free service, hoping to eventually persuade free users to upgrade. This is not a definition of free trials.

What makes the Freemium Model especially interesting is that it takes characteristics of the Internet that many established industries has regarded as weaknesses or threats, such as open source software, illegal piracy, and demand for free services, and sees how the mechanisms behind these phenomena can be used in creating sustainable businesses and new ways of capturing value.

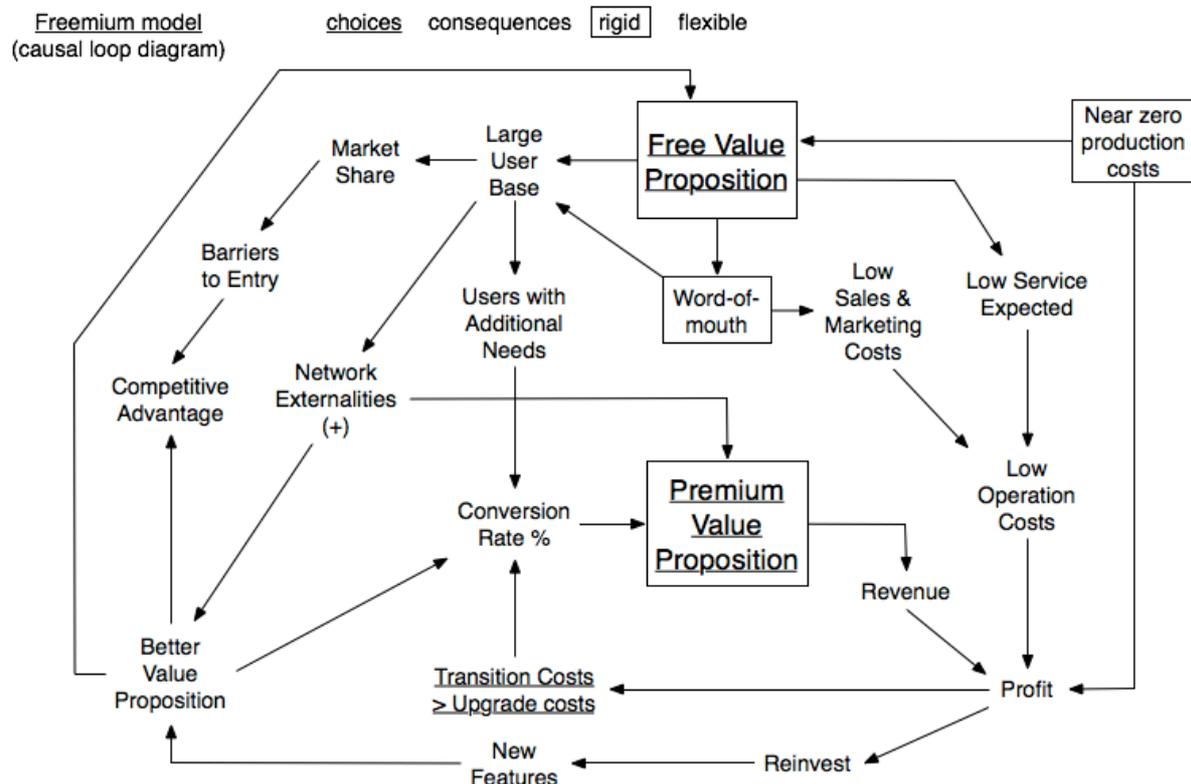
The Freemium model raises an important question: What is the value of a free user? In the Freemium model you choose to give away a service for free, hoping to acquire large base of users, and then convert enough users into premium customers. If the model is successful the profit from the premium users with the cost of the free users deducted, will be greater than the profit of a conventional model, when customer acquisition costs have been accounted for.

If a free user is just seen as a potential customer, the value of each user will have to be the calculated based on the probability of converting him or her into a paying customer. However, the value of a free user nee to be based on network effects as well. This is of course highly dependent on the nature of the service. Gupta and Mela have studied the value of free users of an online auction site, where sellers pay to start an auction, and buyers can place bids for free. They found that buyers that were acquired early and spawned a chain of both buyer and sellers could be worth as much as 2,500 dollars to the company (Gupta and Mela, 2008). Although this study didn’t look at a Freemium model, it illustrates that a free user can have greater value than the potential of becoming a paying customer.

Free service lowers the users expectancy of services. For a paid service, the customer expects service when something isn’t working as it is expected to. By establishing forums and communities for the users to interact, the company can reduce costs of customer service, by posting answers to common problems, follow up on problems that are being discussed, and

encourage users to help each other. Listening to communities might also give early notice about new needs and fresh ideas that the company can develop further.

A company that chooses a Freemium model should use its free offering and user base as a resource to gain a strong competitive position, lower the costs of its activities by creating an online user community, and try to benefit from the Web 2.0 context it is operating in.



Freemium is similar to freeware but more than a sales and marketing strategy, utilizing characteristics of Web 2.0 to create value, reduce costs, use available channels, and capture new users. Still, it can be assumed that many of the same effects that benefit freeware will benefit Freemium.

Haruvy and Prasad have studied the strategic use of freeware in the software industry. The definition of this strategy is to deliver “a low quality version of [the company’s] commercial software as freeware” (Haruvy and Prasad, 2005: 514), which is almost identical to the definitions of the free and premium service in the Freemium model. Their study provides four important findings. First, the use of freeware can be used as a barrier, deterring rivaling companies from entering the market. Secondly, freeware strategies can take advantage on

how consumers coordinate their choice of software when the outcome between competing software is uncertain. As a third finding, freeware can be used for rapid growth of network, without offering lower prices. A traditional strategy is to lower the price of a product in order to gain customers, but once a customer base is established it's harder to raise that price without upsetting customers. By using freeware of lower quality a company can gain a user base, and then offer the commercial product for a normal or even higher price due to the network externalities gained from the free user base. The last finding is that freeware can be used to slow down a competitor trying to build a network of his own.

In some literature open source is described as a variant of Freemium (Osterwalder and Pigneur, 2010; Teece 2010). Open source benefits from programmer and developers contributing to open and free platforms, such as Linux. Although, the basic versions of these types of software are free, some companies like Red Hat offers commercial versions where they can guarantee reliability and support. Many companies and organizations that wishes to operate on an open source platform, chooses to pay for the commercial version because of this guarantee. There is little doubt that the companies developing the commercial version are benefitting from the open source community that is constantly developing the platform.

Building a community of free service users gives new options in product development. Offering the users new versions or additional features to test out can provide valuable feedback. Many companies offering free products try out their next version as a "beta" version for months before an official release. This is harder to do with a commercial service or product where the customer testing out an unfinished product would expect to get something in return in the form of compensation or discount. Beta-testing requires close monitoring and dialogue with users in forums and other media.

Chris Anderson has defined four different Freemium models: Time Limited, Feature Limited, Seat Limited, or Customer Type Limited (Anderson, 2009). Each model has its strengths and weaknesses. Time Limited is equal to the trial model, where a service or product is offered for free for a limited time period. After the time period is over, the user will have to convert to the premium version or stop using it. The strength is that it is easy to implement and there is little risk of ending up with sustained base of users unwilling to convert to premium. The weakness is that many users will be reluctant to try the service because they know the free offer is limited. As I have stated above, I choose to not define this as a Freemium business

model, and more as a sales strategy. The second Freemium model is Feature Limited, where a basic version is free, and a more sophisticated version is the premium offer. This model is well suited for attracting new users, and those that convert to the premium service are already familiar with the free version and know the value of the premium offering. This again can increase customer loyalty. The weakness is having two services or products. If the free service has too many features, fewer will convert to premium. If the free service has too few, it will not attract enough users. This is a true Freemium model as I see it. Then there is the Seat Limited model, where the free offer has a volume capacity, e.g. storage space. The model is easy to understand and to implement. The risk is users that could have chosen the premium offer, lower their needs and settle for the free offer. This also is a true Freemium model. The last one is the Customer Type Limited model. Here, the price is determined by the customers' ability to pay, e.g. giving free products or services to students or small start-up companies. The strength of this model is the ability to reach customers that normally couldn't afford the service or product, but will eventually turn into paying customers. The weakness is that it can be very difficult to control the status of the customer. This also is a Freemium model that would fit my definition.

I would like to add a model to the four discussed above. Let me call it Activity limited. This is the model Skype has been using. Most of the activities that users perform with their service are free, but certain activities you need to pay for. The difference is that free and premium isn't divided into distinctive groups of users. The revenue is collected from activities, and not a subscription. The strength is that it is easy for the users to understand, and they know exactly what they are paying for. The weakness is that the revenue can be fluctuating and less predictable, and the conversion rate is harder to determine. Some mobile applications are also using this, such as options for SMS-notifications where the user is paying for the notifications on his phone bill, creating revenue for the company after the phone company has taken their cut.

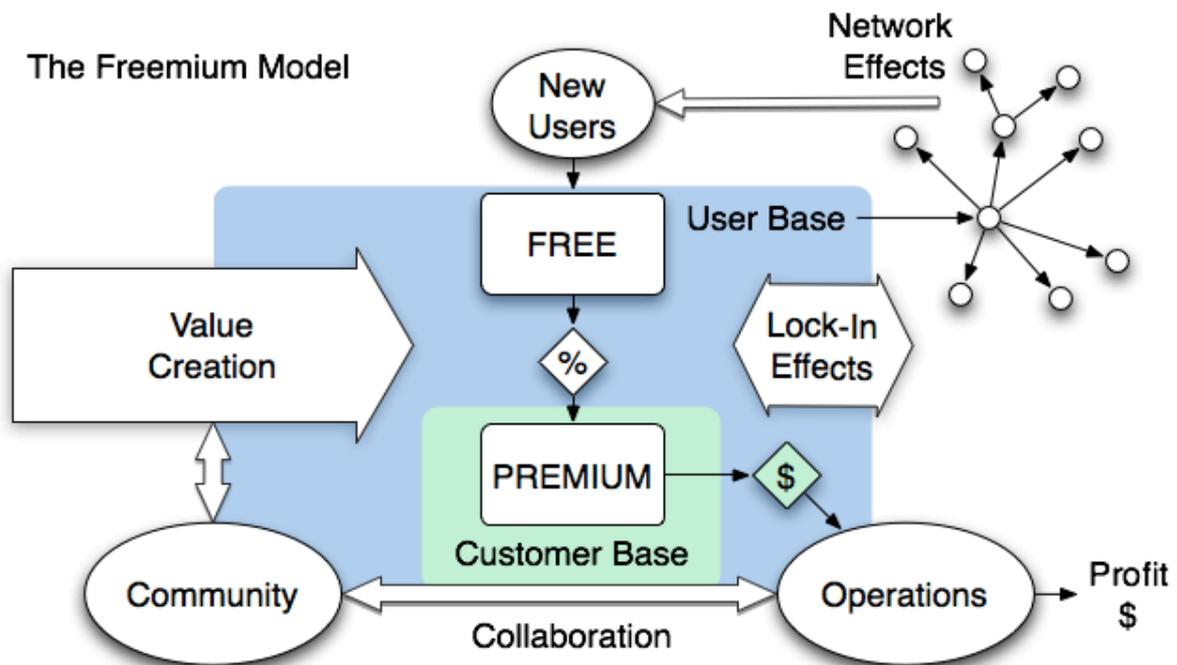
Osterwalder and Pigneur, using their business model canvas, are some of the few that have tried to analytically describe the Freemium model (Osterwalder and Pigneur, 2010). In the category for customer segment they list a large base of free users and a small base of paying users. As value proposition they list free basic service and premium service. The customer relationship is regarded as automated and mass customized. Revenue streams are free basic services and paid premium services. The platform is the key resource because, and as a result

key activities are development and maintenance of the infrastructure. Empty categories are channels and key partnerships. Cost structure is the sum of all fixed costs, the cost of service for premium users, and the cost of service for free users. Income is the product of premium users, premium price and growth rate of this group. The cost of the service model is the cost of the free service users and the premium service users. The total operating profit is calculated as the sum of the income, costs, fixed costs, and customer acquisition costs.

There are a few weaknesses in this way of looking at the Freemium model. An important thing is that the business model canvas values the platform as the most important resource, but it should also mention the user base as an equally important resource once this has been established. It doesn't describe any of the potential benefits that can be drawn from the Web 2.0 conditions it operates under. It should better describe how network externalities could be leveraged through the possibilities that Web 2.0 provides. It fails to mention ways of acquiring users through channels like word-of-mouth, communities, and social media. It also describes customer relationship as automated and mass customized, which will keep costs low. Establishing a community and leveraging involvement of users can be more effective in the long run with users helping each other with problems that can be solved without maintenance or new development. Users might also provide valuable information about emerging needs, or new solutions that can be developed and implemented to improve either the free service, the premium service, or both.

### 3.7 Key Features of the Freemium Model

After looking at strategy theory, different business model definitions and framework, I would like to propose a model describing the Freemium model and the potential for value creation and cost reduction that lies as a potential in collaborating with free users. Many of the definitions of Freemium presented in the literature focus strictly on the value propositions and the conversion rate, neglecting the value creation and opportunities that the surrounding context can provide. To mend this, I use elements from Amit and Zott’s ideas around value creation on the Internet (Amit & Zott, 2001), and O’Reilly’s description of competencies in the Web 2.0 (O’Reilly, 2007). This includes lock-in effects, user acquisition through networks, and collaboration with users in both operations and value creation.



**Value Proposition of Free Offer:** The value proposition for free service is meant to attract users. It must be sustainable over time, but can have limitations that eventually will force the user to consider an upgrade, e.g. limited storage capacity.

**Value Proposition of Premium Offer:** The value proposition of premium service is meant to convince users to upgrade and pay for the service. If the value proposition is too weak, the

business model has to pay the cost of supporting a large base of users that don't create revenue, without a sustainable base of premium users that do.

**Conversion Rate:** Conversion rates are strongly linked to the value propositions. It measures how many users that are converting from the free service to paying, premium customers, and gives a measurement of the strength of the premium value proposition. The business model can still be failing with a high conversion rate if the free value proposition is too poor, and the number of customers is too low to bring in revenue to support the business model. The conversion rate has to be seen in combination with the size of the total user base.

**User Base:** The size of user base is an important metric, because it together with the conversion rate tells how successful the model is. If you get ten times as many users as normal paying customers, but only one fifth of them convert to premium customers, you still collect revenue from twice as many. The growth of the user base is a measurement of the strength of the free value proposition and the efficiency of the acquisition channels.

**Position in Value System:** How the product or service is being produced has great impact of the cost, and hence the profitability of the model. It is therefore important to see what input is required in the operation and what role the company has in delivering value. If there are suppliers with high bargaining power in the value delivered, the company can be vulnerable in serving a large base of free, non-paying users.

**User Acquisition Channels:** Most Internet users today have an online network they can reach out to through email or social medias. Leveraging the users online presence for acquiring new users can reduce the company's costs of marketing. Effective ways to do this is by integrating ways of sending invitation over email, or integration with social media applications. Giving users ways of inviting others is also effective, as they will invite people they think will actually enjoy the service.

**Lock-In Effects:** Once users have been acquired there should be features or mechanism that work to retain them and encourage continued use. Leveraging customer loyalty, customization, or network effects, are ways of increasing the switching costs of the users. If switching costs are high, users with additional needs will hopefully choose to upgrade to the premium service, rather than turning to competitive services.

**User Community:** Establishing or using an existing community of users can benefit the company in different way. Using online forums can encourage user to help each other, reducing the need for customer service from the company. It can also be a good way of getting feedback and pick up on new emerging needs, or features the users are disappointed in. Beta-testing is also an effective way to test out newly developed features. This is harder to accomplish with a paying customer base, as the company in most cases would be expected to give something in return. A user community can also create lock-in effects, helping to retain the users.

**Other revenues streams:** Revenue from the premium service is the main source of revenue in the Freemium model, but other revenue streams are often used to support the operation. The most common are advertisement, and complementary products and services.

# 4 Methodology

This study is conducted using qualitative analysis in order to get an understanding of the Freemium business model. There is little consensus in the use of Freemium as a term in blogs and articles, and only a few description of Freemium exist in the scientific literature.

## 4.1 Research design

The research design was chosen based on the research question, and the time and resources available. This study was based on an exploratory design, trying to understand Freemium as a business model. Defining and describing the Freemium model my first research question. Due to the nature of the model being studied, the main part of this study has been focused on developing a theory. Freemium is a buzzword with little consensus in scientific literature or online communities, beyond offering a free and a premium service or product. My second research question was finding out how the Freemium model works in a real-life case. Based on the theory, a model for the Freemium model has been proposed and explored by looking at two cases that have chosen to implement Freemium as their business model.

### 4.1.1 Case study

A case study is normally chosen when the research question is “how” or “why”, there is limited control over the events being studied, and those events are contemporary, taking place in a real-life context (Yin, 2009). I chose to look at how a Freemium model could be defined, and how this would describe real-life companies that have implemented this model. I have done an exploratory case study with a multiple case design, using two cases: Skype and Spotify. Multiple cases make the study more robust, but the number of cases I’m using is not enough to conclude anything about theoretical replications or literal replications (Wilson, 2010). Literal replications are when case studies produce similar results, and theoretical replications are when case studies produce different results that can be predicted or anticipated (Yin, 2009).

“A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and with-in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009:18). Since the Freemium model has many

different elements working together, and the value creation in collaboration between users and company is hard to describe, it is well suited for a case study.

#### **4.1.2 Unit of Analysis**

The unit of analysis has been the companies' business model, analyzing the characteristics proposed in this study. As a business model is a holistic view of a company's operation and strategy, the analysis has been holistic in nature as well, but with focus on the characteristics described. As I have relied on many of the same categories as used in other business model definition, this study can be compared with previous or future studies.

#### **4.1.3 Choice of Cases**

The goal of the study is to get insight in how the Freemium model works and for what products and companies it is best suited for. Due to the time frame of this study, I have chosen cases I have already been familiar with. The danger of doing this is of course to enter the field with predisposed subjective opinions, which I have been conscious about.

The cases that were chosen are different both in terms of the product and services they are providing, and the stages the companies are in.

#### **4.1.4 Validity and Reliability**

The quality of a research design is dependent on four variables: construct validity, internal validity, external validity, and reliability (Yin, 2009). In order to assure the construct validity the characteristics being measured in the cases are based on a thorough review of literature on strategy theory, business models, and related subjects. The internal validity is considered in the analysis by examining how the different characteristics are linked together, and considering them in light of the company's context and history. The external validity is considered by basing the characteristics on effects and results that are documented in available literature. More cases would have made the study and the result more robust, but due to the scope and limited time of this study, I chose to focus on two cases. The cases were chosen because of differences in product and services delivered and stage the companies are in, which pointed differences that gave insight to the Freemium definition.

## 4.2 Data Collection

The data sources used in this study have been mostly documents and archival records. In the literature review and theoretical discussion I have based myself on articles found through ISI – Web of Knowledge and Google Scholar. The literature on the topic is limited, and only a few articles mention Freemium. The articles used have been from peer-reviewed publications. In cases where I've felt it has been necessary to go further I have used books that have been either closely related to the subject, referred to in the articles, or are generally accepted in the field. Due to the nature and origin of the topic and the cases, I have also used Internet sources that are pertinent. Data for the cases has been gathered from the companies' websites as well as secondary sources. Since I'm already a user of the services these companies provide, I have also used personal experience.

In the case of Skype, the company filed a S-1 form with the U.S. Securities and Exchange Commission, a first step before an initial public offering (IPO). This document covers the basic business and financial information about the company, including strategic analysis and financial numbers. Based on reliability of the document and the amount of detailed information I have used this as the main source of information for this case. The information is also more straight-to-the-point than information I could have hoped for using other sources, e.g. interviews, which made the case more applicable to the study. The form is dated in August 2010 and includes financial numbers up till June, but other sources have been used to get numbers that are even more up to date. Keeping in mind that this form is written by the company, I have also relied on news articles discussing Skype.

There has been written little about Spotify in scientific studies, but the company has gotten a lot of attention, especially because of its Freemium model and how it explores new ways commercializing on online music distribution, creating a legitimate alternative to online piracy. Here I have relied on information found in news articles, blogs, and information from the company itself published on their websites and other forums.

# 5 Case study and Results

## 5.1 Skype

**Note: If nothing else is mentioned in the text, the source of information is Skype's S-1 filing of August 9<sup>th</sup> 2010 with the U.S. Securities and Exchange Commission.**

Freemium Characteristics	Skype
<b>Value Proposition of Free Offer:</b>	Skype-to-Skype: <ul style="list-style-type: none"> <li>• Voice-over-IP (VOIP)</li> <li>• Instant messaging (IM)</li> <li>• Video Calls</li> </ul>
<b>Value Proposition of Premium Offer:</b>	SkypeOut & SkypeIn (Skype to landlines/cellphones) <ul style="list-style-type: none"> <li>• Voice</li> <li>• Phone number</li> <li>• Voice mail</li> </ul> Skype Premium: <ul style="list-style-type: none"> <li>• Group Video</li> <li>• Free Customer Service</li> </ul>
<b>Conversion Rate:</b>	6.5 %, 8.1 million average monthly paying customer
<b>User Base:</b>	560 million, 124 average monthly users
<b>Position in Value System:</b>	Dependent on licensing parts of their technology
<b>User Acquisition Channels:</b>	On the Windows platform they have integration with Facebook
<b>Lock-In Effects:</b>	Contacts
<b>User Community:</b>	Forum page, beta testing
<b>Other revenues streams:</b>	Hardware Sale: <ul style="list-style-type: none"> <li>• Handsets and Web Cameras</li> </ul>

In 2003, Janus Friis and Niklas Zennström founded Skype, providing Internet users with free real-time communication through instant messaging (IM) and voice-over-IP (VoIP). Later

they have added video calls as well. In 2005 they were acquired by eBay, which in 2009 sold the company to an investment group that also included the original founders. The latest news is the acquisition by Microsoft in May 2011. How this latest acquisition will effect the company is too soon to speculate in.

Skype has a premium offer they call SkypeOut, which offer Skype-users the ability to call landlines and cell-phones at competitive prices, and often way below the price of a conventional phone conversation when calling over long distances. They also have a service called SkypeIn where users can buy a phone number and voicemail that can be reached by landlines and cell-phones. Together the two service offers provides users with an alternative to traditional phone services. This option has also been popular with companies with resources, or establishing themselves with virtual offices around the world.

Although it is hard to compete with traditional phone lines, Skype has an advantage when it comes to sound quality. Because they rely on IP they can operate with higher sound quality, making them a popular choice in business meetings. They have also integrated with teleconference solutions as LifeSize<sup>8</sup>, and are working on integrating with other services and devices. In January 2011, Skype launched what they call Skype Premium<sup>9</sup>. Skype Premium offer free group video calls, and free customer service<sup>10</sup>.

In June of 2010, Skype had a total of 560 million users. Out of this 124 million were using the service on an average monthly basis, and average monthly paying customer were 8.1 million. This gives a conversion rate of 6.5 percent. Skype has not released a number on how many have signed up for their premium service.

Skype operates with peer-to-peer software architecture, meaning a lot of the communication is processed using the users' own computers. This reduces cost for the company, and makes their service highly scalable. Skype doesn't own all the technology they use, and they rely on licensing this technology from third parties. This includes licensing video transferring technology, such as codecs.

---

8

[http://www.lifesize.com/Company/News\\_and\\_Events/Press\\_Releases/2011/20110419\\_LifeSize\\_Extends\\_Video\\_Calling\\_to\\_Skype\\_Users.aspx](http://www.lifesize.com/Company/News_and_Events/Press_Releases/2011/20110419_LifeSize_Extends_Video_Calling_to_Skype_Users.aspx)

<sup>9</sup> [http://about.skype.com/press/2011/01/group\\_video\\_calling.html](http://about.skype.com/press/2011/01/group_video_calling.html)

<sup>10</sup> <http://www.skype.com/intl/en/prices>

Skype's free service is highly characterized by network externalities. The service in it self is pretty much useless without a Skype user at the other end. The strong network effect is the reason why they have managed to grow their user base. As they state in the SEC-filing:

*...In particular, our business and user communities benefit from network effects, whereby Skype products become more valuable as more people use them. [...] The positive network effects have helped us grow our user base and establish Skype as a well-recognized brand in Internet communication, without requiring us to make significant investments in sales and marketing activities.*

This is supporting the basic principle of gaining user by offering free service. For the Windows platform they've integrated with Facebook, allowing users to easily connect with their online network<sup>11</sup>, further strengthening these network effects.

Lock-in effects of Skype is directly linked to its users. Users with a long list of contacts on Skype will be reluctant to change to other services, because this would mean convincing all their contacts to do the same. Skype have been successful in building an active community on forums, where users are sharing experiences, helping solve problems, and providing feedback. In 2010 they had 839 employees, but only 65 of these worked with customer service. That means close to one employee per 10 million users. Beta-testing is also widely used to test out new versions of Skype, and getting feedback from users before an official release.

Their Skype-out offer relies on prices from traditional telephone companies to transfer the calls. The threat of this dependency isn't only financial. If the phone companies feel Skype is competing with their services, they can cease further cooperation with Skype, practically rendering their Skype-out offer useless.

Complementary goods are an additional revenue stream for the company as headsets, handsets and webcams are sold from their website. At first Skype operated this as their own online store, earning \$31.2 million in revenue for 2008. In 2009 they changed this to referring customer to other sites, collecting referral fees.

---

<sup>11</sup> <http://www.skype.com/intl/en/features/allfeatures/facebook/>

Skype has proven that a company can generate revenue from the Freemium model. They have also showed that the user communities are valuable resources in acquiring new users. Although they don't acknowledge any positive effects from the user community on customer support costs, the low number of people assigned can indicate that this might still be a fair assumption. They do however invite their user to participate in beta-testing of new functionality, which reduces development costs.

## 5.2 Spotify

Freemium Characteristics	Spotify
<b>Value Proposition of Free Offer:</b>	Free Streaming of Music with Commercial Breaks (New Model limits to 10 hours/month and 5x per song)
<b>Value Proposition of Premium Offer:</b>	Spotify Unlimited <ul style="list-style-type: none"> <li>• Stream Music Without Commercial Breaks</li> <li>• Larger Selection</li> </ul> Spotify Premium: <ul style="list-style-type: none"> <li>• Same as Unlimited</li> <li>• Access on Multiple Devices</li> </ul>
<b>Conversion Rate:</b>	10%, Approx. 1 million paying users <sup>12</sup>
<b>User Base:</b>	10 million <sup>13</sup>
<b>Position in Value System:</b>	Dependent on licensing music rights from record companies
<b>User Acquisition Channels:</b>	Clever Word-of-Mouth launch
<b>Lock-In Effects:</b>	User generated playlists, Contacts
<b>User Community:</b>	Forum page, Integration with Facebook
<b>Other revenues streams:</b>	Advertisements

Spotify has gotten much attention in the media, especially since their free service offer is believed to be legitimate alternative to online music piracy. Spotify offers online streaming of music, and is currently available in several European countries. The company was founded in 2006 by Daniel Ek and Martin Lorentzon, and has grown to a company of 250 employees, and offices in six different countries. Today the company has 10 million users, where as 1 million are paying subscribers.<sup>14</sup>

Spotify has three different service options to choose from. Their free offer is named Spotify Open, and offers free online streaming of music with advertisement interruptions between songs. Spotify Unlimited offers free streaming of music, but without the advertisements.

<sup>12</sup> <http://www.spotify.com/no/about/press/background-info/>

<sup>13</sup> *ibid.*

<sup>14</sup> *ibid.*

Spotify Premium offers the same free streaming of music as Spotify Unlimited, but allows for use on smart phones and tablets, and playing playlists in offline mode.

Although Spotify's service doesn't have any obvious network externalities, they have made an effort in creating a social networking aspect that does. With integration with social media like Facebook and Twitter, Spotify allows you to share playlists and music with friends and contacts<sup>15</sup>. One option a user has is to send a song to other contacts as an URL, which also works as an invitation, because you would need to sign up to play the song. The playlists and contacts work as a lock-in effect with Spotify. Spotify let you share your playlists with friends, or play their playlists. This is further strengthened through the integration with Facebook.

Spotify did one very clever thing when launching their service. They restricted their free service to invitation only. The first users had a limited number of invitations they could pass on to friends and other contacts. This might seem less effective since it limits people's ability to sign up, but it spurred an effective word-of-mouth campaign. With a limited number of invitations users didn't just send out random invitations to everyone they knew. They selected those that would enjoy the service. This way the user base that grew was composed of people with a genuine interest and actually used the service. It also created a buzz around Spotify. In social media, people were reaching out to each other for information on how to get invitations and sign up.

Spotify's business model is interesting because it utilizes aspect from different models, mixing them together into a Freemium structure. The free service is supported by advertisements, which also works as the differentiation between their free and premium service. This means their free service isn't fully dependent on the premium revenue, but is actually producing revenue on its own. Still the revenues from advertisements are less than a monthly subscription<sup>16</sup>, meaning the goal for the company is still to convince people to subscribe to their premium service.

---

<sup>15</sup> <http://www.spotify.com/no/about/social/>

<sup>16</sup> <http://www.independent.co.uk/arts-entertainment/music/news/spotify-is-forced-to-halve-its-free-music-allowance-2268080.html>

A problem with Spotify's model is that they don't have ownership over the content. They are depending on licensing it from record companies. Based on financial numbers from 2009, Spotify is believed to have gotten 60 percent of their revenues from the premium subscription and the remaining from advertisements to its free users<sup>17</sup>. The cost of licensing the content for their service was around 18 million pounds<sup>18</sup>, which is a threat to a fundamental principle of the Freemium model that the additional free users represent a low or insignificant cost to the company. According to a competing service in the states, record companies in general operate with two different licensing agreements<sup>19</sup>. Free services pay a lower fixed fee, while paid services pay a higher fee. The problem is that once a company starts charging for their services, the higher fee applies to all users, free or premium.

In April of 2011, Spotify announced that they were making changes to their free service offer, putting limitations on both time and repeated plays<sup>20</sup>. From May 1st, existing free users would be limited to 10 hours of streaming a month, and every song would be restricted to only 5 plays. How this will affect their free user base is too soon to say, as reactions from users were mixed. Some users showed disappointment and commented the announcement with "bye, bye, Spotify"<sup>21</sup>. Others welcomed the changes believing it would benefit the users with an improved service in the long run. This change in Spotify's free service offer shows that the company no longer believes that the original Freemium model is sustainable. Another possibility is that Spotify believes that they've gained a large enough user base to move on with a subscription model, making it easier to make sustainable deals with their content providers.

---

<sup>17</sup> <http://www.businessinsider.com/spotify-needs-more-paying-subscribers-to-survive-2010-11>

<sup>18</sup> *ibid.*

<sup>19</sup> *ibid.*

<sup>20</sup> <http://www.spotify.com/no/blog/archives/2011/04/14/upcoming-changes-to-spotify-free-open/>

<sup>21</sup> *ibid.*

## **6 Conclusion**

This study was aiming to find a definition of what the Freemium model is and what categories that can be used to describe it, and then see how these categories can be used in describing real-life cases that are utilizing the Freemium business model. After reviewing literature on strategy, business models and Freemium model, I found nine characteristics of this model.

### **6.1 Main Findings**

The Freemium business model provides a free service offer to gain users by leveraging the network the users already have. The free service offer is sustained over time. Persuading the users to pay for a premium offer creates revenue, and if successful enough to support the entire user base and make a profit. The nine Freemium characteristics presented in the study are free value proposition, premium value proposition, conversion rate, user base, position in the value system, user acquisition channels, lock-in effects, user community, and other revenue streams. A successful implementation of the Freemium model seems to favor products and services with high network externalities.

### **6.2 Practical Implications**

This study suggests that companies implementing the Freemium model should look at how users can contribute to the value creating process and cost reduction as well as being potential revenue generating customers. Practitioners should also pay attention to network externalities, and leverage network effects to create growth of the user base. If networks externalities are not present, features that create this should be implemented.

### **6.3 Academic Implications and Further research**

Part of the goal of this study was linking the Freemium model to existing literature on strategy and business models. Many other definitions have only focused on users as potential customers, neglecting the value they represent in attracting new user and increasing the value of the service. This study also shows that previous studies on freeware, network effects and online communities can be used to explore the model further. The limitations of this study, calls for further research on user involvement and the effect of communities on business models.

The definition of the Freemium model can still be improved with a better description of the value creation in the digital economy and the Web 2.0. The business model constructs reviewed in this study are not ideal for describing value creation in collaboration with users.

# 7 Reference List

## 7.1 Articles and Books

Amit, Raphael; Zott, Christoph; *Value Creation in E-business*; Strategic Management Journal, Vol. 22, No. 6/7, 2001

Anderson, Chris; *Free: The Future of Radical Pricing*; Random House Business Books 2009

Barney, Jay; *Firm Resources and Sustained Competitive Advantage*; Journal of Management, Vol. 17, No. 1, 1991

Barney, Jay B.; *Looking inside for Competitive Advantage*; Academy of Management Executive, Vol. 9, No. 4, 1995

Beuscart, Jean-Samuel; Mellet, Kevin; *Business Models of the Web 2.0: Advertising or the Tale of Two Stories*; Communications & Strategies, Special Issue, November 2008

Casadesus-Masanell, Ramon; Ricart, Joan Enric; *From Strategy to Business Models and onto Tactics*; Long Range Planning 43, 2010

Chesbrough, Henry; *Business Model Innovation: Opportunities and Barriers*; Long Range Planning 43, 2010

Chesbrough, Henry; *Open Business Models: How to Thrive in the New Innovation Landscape*, Harvard Business School Press, 2006

Choi, David Y.; Perez, Arturo; *Online piracy, innovation and legitimate business models*; Technovation 27, 2007

Conner, Kathleen Reavis; Rumelt, Richard P.; *Software Piracy: An Analysis of Protection Strategies*; Management Science, Vol. 37, No. 2, February 1991

Dahlander, Linus; *Penguin in a new suit: a tale of how de novo entrants emerged to harness free and open source software communities*; Industrial and Corporate Change, Vol. 16, No. 5, August 2007

Freestone, O; Mitchell, V.-W.; *Generation Y Attitudes Towards E-ethics and Internet-related Misbehaviours*; Journal of Business Ethics, 54, 2004

Gupta, Sunil; Mela, Carl F.; *What is a Customer Worth?*; Harvard Business Review, November 2008

Haruvy, Ernan; Prasad, Ashutosh; *Freeware as a Competitive Deterrent*; Information Economics and Policy, 17, 2005

Hofstede, Geert; *The Cultural Relativity of Organizational Practices and Theories*; Journal of International Business Studies, Fall 1983

Magretta, Joan; *Why Business Models Matter*; Harvard Business Review, May 2002

McGrath, Rita Gunther; *Business Models: A Discovery Driven Approach*; Long Range Planning 43, 2010

Moore, Gordon E.; *Cramming more components onto integrated circuits*; Electronics, Volume 38, Number 8, April 19, 1965

O'Reilly, Tim; *What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*; Communication & Strategies, No. 65, 1<sup>st</sup> quarter 2007

Osterwalder, Alexander; Pigneur, Yves; *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*; John Wiley & Sons, Inc., 2010

Peng, Mike W.; *Global Strategic Management, Second Edition*; CENGAGE Learning, 2009

- Porter, Michael E.; *Competitive Strategy: Techniques for Analyzing Industries and Competitors*; Free Press, 2004
- Porter, Michael E.; Millar, Victor, E.; *How Information Gives You Competitive Advantage*; Harvard Business Review, July 1985
- Porter, Michael E.; *Location, Competition, and Economic Development: Local Clusters in a Global Economy*; Economic Development Quarterly, February 2000
- Porter, Michael E.; *Strategy and the Internet*; Harvard Business Review, March 2001
- Rappa, M. A.; *The utility business model and the future of computing services*; IBM Systems Journal, Vol. 43, No 1, 2004
- Scott, Richard W.; *Institutions and Organizations*; Sage Publications, Inc., 1995
- Teece, David J.; *Business Models, Business Strategy and Innovation*; Long Range Planning 43, 2010
- Williamson, Oliver E.; *The Economics of Organization: The Transaction Cost Approach*; The American Journal of Sociology, Vol. 87, No. 3, November 1981
- Wilson, Jonathan; *Essentials of Business Research: A Guide to Doing Your Research Project*; SAGE Publications Ltd., 2010
- Wyld, David C.; *The Utility of Computing as a New Pricing- and Consumption-Model for Information Technology*; International Journal of Database Management Systems, Vol.1, No.1, November 2009
- Yin, Robert K.; *Case Study Research: Design and Methods*; 4<sup>th</sup> Edition, Sage Publication, Inc., 2009

## 7.2 URLs

Overton, Jacey; *LifeSize Extends Video Calling to Skype Users Worldwide*; LifeSize.com, Press Release, Austin, Texas, April 19 2011. Available online at:

[http://www.lifeseize.com/Company/News\\_and\\_Events/Press\\_Releases/2011/20110419\\_LifeSize\\_Extends\\_Video\\_Calling\\_to\\_Skype\\_Users.aspx](http://www.lifeseize.com/Company/News_and_Events/Press_Releases/2011/20110419_LifeSize_Extends_Video_Calling_to_Skype_Users.aspx) [last accessed: 19.05.2011]

Rosoff, Matt; *Spotify Bleeding From Licensing Costs*; Business Insider, November 22<sup>nd</sup> 2010; Available online at:

<http://www.businessinsider.com/spotify-needs-more-paying-subscribers-to-survive-2010-11> [last accessed: 19.05.2011]

Sherwin, Adam; *Spotify is forced to halve its free music allowance*; The Independent, April 15<sup>th</sup> 2011; Available online at:

<http://www.independent.co.uk/arts-entertainment/music/news/spotify-is-forced-to-halve-its-free-music-allowance-2268080.html> [last accessed: 19.05.2011]

Skype S.à r.l.; *Form S-1 Registration Statement – Under The Securities Act of 1933*; United States Securities and Exchange Commission, August 9<sup>th</sup> 2010; Available at:

<http://www.sec.gov/Archives/edgar/data/1498209/000119312510182561/ds1.htm> [last accessed: 19.05.2011]

Skype.com; *About Skype*; Available online at:

<http://about.skype.com/> [last accessed: 15.05.2011]

Skype.com; *Prices*; Available online at:

<http://www.skype.com/intl/en/prices> [last accessed: 16.05.2011]

Skype.com; *Do More Together Wherever You Are with Skype Group Video Calling*; Skype Press Release, Las Vegas, Nevada, January 6<sup>th</sup> 2011; Available online at:

[http://about.skype.com/press/2011/01/group\\_video\\_calling.html](http://about.skype.com/press/2011/01/group_video_calling.html) [last accessed: 17.05.2011]

Skype.com; Facebook News Feed; Available online at:

<http://www.skype.com/intl/en/features/allfeatures/facebook/> [last accessed: 18.05.2011]

Sisario, Ben; *Spotify Cracks the Million-User Ceiling*; Media Decoder, New York Times, March 8<sup>th</sup> 2011; Available online at:

<http://mediadecoder.blogs.nytimes.com/2011/03/08/spotify-cracks-the-million-user-ceiling/>

[last accessed: 15.05.2011]

Spotify.com; Background Information; Available at:

<http://www.spotify.com/no/about-us/press/background-info/> [last accessed: 18.05.2011]

Spotify.com; Social Social; Available at:

<http://www.spotify.com/no/about/social/> [last accessed: 19.05.2011]

Spotify.com; Upcoming changes to Spotify Free/Open; April 14<sup>th</sup> 2011; Available online at:

<http://www.spotify.com/no/blog/archives/2011/04/14/upcoming-changes-to-spotify-free-open/> [last accessed: 19.05.2011]

Wilson, Fred; *My Favorite Business Model*; A VC (Blog), March 23<sup>rd</sup> 2006; Available online at:

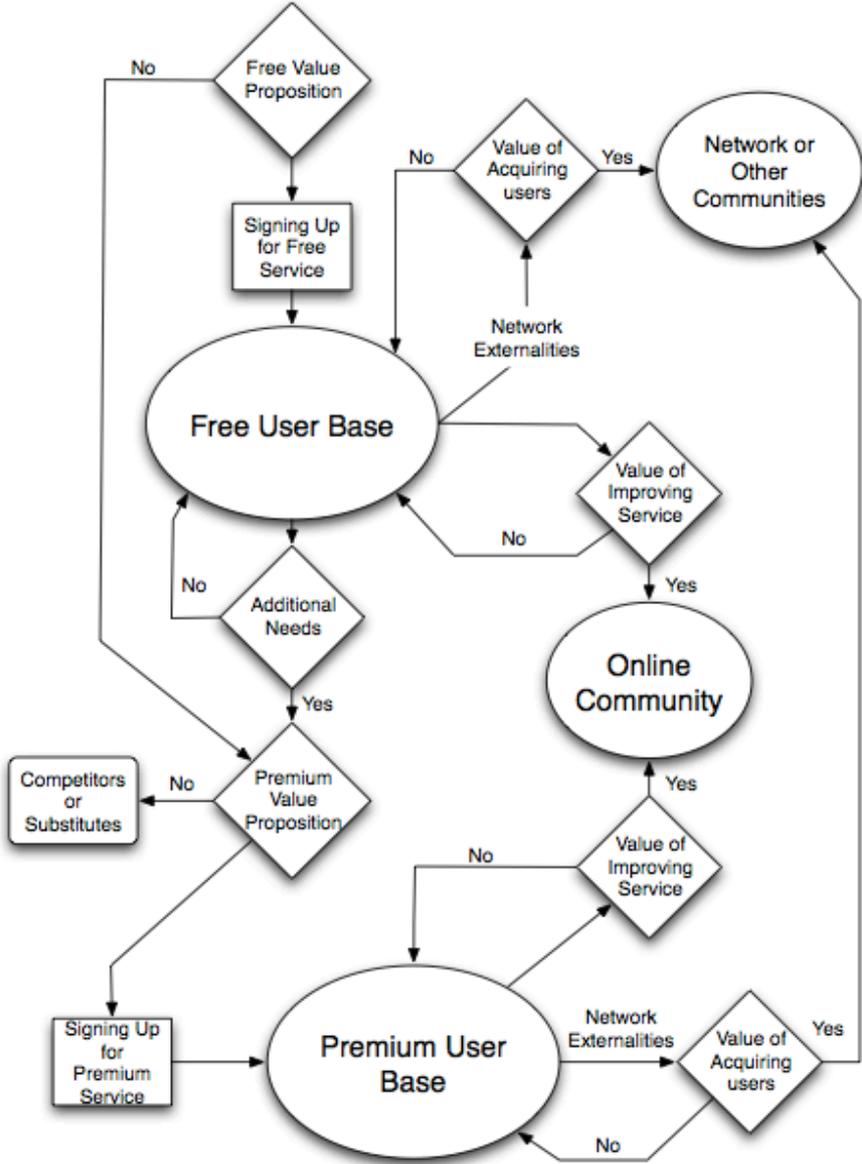
[http://www.avc.com/a\\_vc/2006/03/my\\_favorite\\_bus.html](http://www.avc.com/a_vc/2006/03/my_favorite_bus.html) [last accessed: 15.05.2011]

Wilson, Fred; *The Freemium Business Model*; A VC (Blog), March 23<sup>rd</sup> 2006; Available online at:

[http://www.avc.com/a\\_vc/2006/03/the\\_freemium\\_bu.html](http://www.avc.com/a_vc/2006/03/the_freemium_bu.html) [last accessed: 15.05.2011]

# 8 Appendix

Fremium Model: User Process



Fremium Model: Operations

