SUCCEEDING WITH FREEMIUM

Exploring Why Companies Have Succeeded & Failed With Freemium

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Abstract

This paper explores how and why companies have succeeded and failed when basing their business model on *freemium*. Even though freemium is increasing in use by web-based companies, there is still no research specifically on the concept. This paper aims at rectifying this by commencing a deeper examination of freemium.

In this paper success and failure was explored through a comparative case study, examining four companies' use of freemium. From this, eight empirical findings were proposed. First and foremost, this paper found that it is possible to design viable business models based on freemium. Seven conditions to achieve this viability were proposed, based on a company's ability to create value, deliver value and capture value.

This paper found that as a precondition to choose freemium, low marginal costs are required, at least on the free version. Otherwise the premium version would be too expensive for the paying customers. Freemium also depends on the company having a large addressable market, as it entails possibly giving away a company's product or service for free for some users into perpetuity. The key metric is then the customer lifetime value — especially as freemium is more opaque that more traditional models where each user pays from him- or herself directly. In addition, based on this opaqueness, tracking and measuring the costs and revenues associated with the users are found to be vital in order to succeed with freemium.

As the number of paid customers is vital, this paper found that the free version must convince a large enough subset of users to convert to paying customers by conveying the added value of the premium version. Thus, there must be a focus on converting *enough* users from the free version to the premium version. If the company is not able to convey this value and convert users, they will not be able to capture enough value to survive with freemium.

Strong word-of-mouth effects were found to be vital to achieve success with freemium. This finding seemed to go to the core of why the case companies chose to use freemium. In all the four case companies examined freemium was primarily chosen based on the possible marketing effects of giving away the product or service to as many as possible, and especially as it could, and indeed did in the three successful cases, decrease the customer acquisition cost. However, the resulting rapidly increasing amount of customers for the case companies revealed the importance of automation of manually demanding activities, as the companies would otherwise not be able to keep the cost of their free users low enough.

Preface

This work on *freemium* is part of my specialization project at the Norwegian University of Science and Technology (NTNU). My specialization is in the field of innovation and entrepreneurship at the Department of Industrial Economics and Technology Management (IØT), faculty of Social Science and Technology Management (SVT).

I would like to thank my supervisor, adjunct professor Karl Klingsheim, for interesting discussions and ideas throughout the process. I would also like to thank fellow student Andreas Parr Bjørnsund, who has also written a project on business models and who I have shared resources and articles with during the writing of this project. Lastly, I want to thank my good friends Christian Magnus Skoglund, Olav Bjørkøy and Vetle Engesbak for their great feedback and interesting discussions from the very beginning to the very end of this process.

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Chapter 1

Introduction

The aim of this paper is to gain a better understanding of how a company can design a viable business model around *freemium*. The word freemium is a combination of "free" and "premium", and the concept was popularized by Wilson (2006) as:

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.

Thus, freemium is a concept whereby a company offers something for free, with no requirements to purchase now or later, in order to build a large user base, of which, at least, some purchase the premium priced offer. This is then a change from what economists call tying, as the customer is not conditioned to buy the premium version — it is not indispensable.

The primary enabler of freemium is the decreasing cost of digitized products and services on the Internet (Anderson 2009). But even though the Internet has enabled freemium, many of the companies that have based their business model on it is now facing considerable difficulties, including several that have gone bankrupt (Darlin 2009). In the fiercely competitive online market, it is enticing to give away a product for free in order to grow rapidly, but many companies have not been able to capture enough value to survive.

Several notable companies are using freemium today, including Spotify, the music streaming service offering unlimited streaming of music; the publicly traded LogMeIn, which provides remote access to computers over the Internet and is valued at more than $1 billion USD; and the VoIP provider Skype, which allows users to make voice calls over the Internet — for free to other Skype users — and who is now filing for an initial public offering.

The term *freemium* has been recognized and adopted in academic circles (*e.g.* Doerr et al. 2010; Shuen 2008; Teece 2010; Osterwalder and Pigneur 2010), and according to The New York Times freemium is becoming the most used business model among web-based startups (Miller 2009). But while it has been heavily used the last years, there has been little research specifically on the concept, and it is still uncertain as to whether or not business models based on freemium works (Teece 2010).

As freemium is becoming heavily used, though seemingly often misused, understanding it is important both from a practical and academic point of view. Following this the essence of this paper is exploring how and why companies have succeeded and failed when basing their business model on freemium.

Having a viable business model — that is, where the organization is capable of generating profit from the business model (Gordijn and Akkermans 2001) — is essential to succeed (Magretta 2002). The viability is tied both to the value the business model creates and to the way it capture value and generate revenue (Shafer et al. 2005). An essential problem for Internet companies is that they have struggled to create viable business models (Teece 2010), something many companies experienced when the "dot-com bubble" burst.

This paper has a keen focus on web-based products and services, and as such, this paper is limited to information goods. This is also the context in which Wilson (2006) defined freemium. Using freemium in other contexts might be possible, but answering this question is outside the scope of this paper.

Answering why and how freemium-based companies succeed or fail will be sought through a comparative case study. This will underline attributes of both companies that have succeeded and failed, and try to distinguish between these, to highlight what companies must do in order to achieve success when using freemium. An inevitable outcome of both the research question and how it was sought answered, is that this paper only answer what is sufficient, not necessary, to succeed with freemium.

1.1 THE STRUCTURE OF THIS THESIS

This paper starts with a brief chapter on freemium, which aim to give a better understanding of what the concept entails, how it is used, and its position in the very competitive online market. Following this the relevant theoretical aspects of the paper will be dealt with. This entails a brief review of literature related to business models, information goods and giving away things for free, and aim to give an understanding the theoretical aspects of freemium. The methodology chapter explains how the research was conducted and discusses the credibility of the findings, before the presentation chapter and the ensuing discussion chapter where the chosen cases are presented and discussed in relation to the relevant theory. Finally the conclusion ties together the findings in a summary, and discusses the implications for industry and theory. Additionally the conclusion include several possible future directions for research on freemium.

Chapter 2

Context

To understand freemium, we must first look at it in relation to the Internet, how it is used, and its position in the very competitive online market. As there have been little research on freemium thus far, I introduce the term based on non-academic work.

2.1 FREE & THE INTERNET

The concept of giving something away in order to entice customers is not new. Similar terms include shareware and freeware, but these are defined specifically for software (*e.g.* Liao-Troth and Griffith 2002). Freemium on the other hand is about services. To exemplify this distinction, we can look at the music streaming service Spotify. It is not the downloadable software that matters, but the music — the service. Other than that, the rationale is similar — enticing customers to buy the premium version.

According to the Copenhagen Institute for Futures Studies "we are witnessing a pronounced flourishing of free content and services on the internet" (Mogensen et al. 2009, p. 14). They argue that this implies all things digital and mass produced will become free, while unique products and experiences will be worth more. Thus, all companies that have digitized products will be affected. One example of this is how Wikipedia disrupted the historically lucrative encyclopedia business. Bill Gates, founder and former CEO of Microsoft, have said that the Internet helps achieve a "friction-free capitalism" (Gates et al. 1995; Gates 2006), as buyers and sellers are put in direct contact with each other, and where the cost of manufacturing and distribution approaches zero.

At the same time as the Internet is changing the economy by pressuring the price downwards (Anderson 2009), it enables new possibilities, *e.g.* such as making it easier to price discriminate between customer segments, easier to reach a far bigger market at a cheaper price than for physical products, and providing opportunities for making money in entirely new ways, one of which is freemium. Anderson (2009) claims that "people are making lots of money and charging nothing."

2.2 WHAT FREEMIUM IS AND IS NOT

As the definition of freemium is equivocal as to specifically what it is and is not, and therefore who are using freemium and who are not, a clarification is needed. For this paper, a company is said to be using freemium if at least one of their products is based on giving away a free version for some users into perpetuity, while others must pay for a premium version. In this paper premium is defined as advanced features, functionality, or related products and services (in line with Pujol 2010; de la Iglesia and Gayo 2008; Hayes 2008). From this we see that freemium can be both related to one specific product or to a company's suite of products. Later in this paper, examples of both these categories will be presented.

Defining specifically when a company is using freemium and when it is not, is inherently difficult because of the potential complexities which can be introduced when a product or service is digitized. However, it is outside the scope of this project to look closer at classifying specifically when a company is using freemium and when it is not.

2.3 FREE VERSUS PAID

According to Rekhi (2010), a San Francisco based entrepreneur and former Entrepreneur In Residence at early stage VC Trinity Ventures, choosing where to divide the free and paid plans is the essential critical question when using freemium.

Several practitioners have proposed typologies for freemium to better analyze this chasm. Anderson (2009) suggests five ways to differentiate free and paid: The free version can have less functionality than the paid version; less capacity, *e.g.* the number of megabytes of pictures; be limited to a number of people; be free for some, *e.g.* for non-commercial use, while others must pay, *e.g.* for commercial use — *i.e.* differentiating by customer class; and lastly it can be a limited amount of time on the full featured product, often called a trial.

Another suggestion is differentiating on quantity, features, or distribution (Pujol 2010). Differentiating by quantity can *e.g.* be limiting on time, as also mentioned by Anderson (2009); by maturity, *e.g.* giving a subset of the user base the program for free while it is still under development and not ready for general consumption; or by letting paying customers get a time advantage over free users by letting them buy the time-sensitive information before it is provided free of charge at a later time. What Pujol (2010) terms distribution is similar to what Anderson (2009) terms customer class. Thus, we see that these typologies are similar, but Pujol (2010) has a far more inclusive quantity category, and therefore a less specific differentiation that the one presented by Anderson (2009).

Both typologies mentioned see trials as a form of freemium, many practitioners, however, don't, and discusses it as a distinct concept different from freemium (*e.g.* Robles 2009; Hudson 2009; Fry 2010). Including trials lead to products such as Microsoft Office 10 and Adobe Photoshop CS 5 using freemium, something many disapprove. In this paper trials are not seen as freemium, and will therefore not be discussed further.

Not mentioned in the typologies we have examined, is what Murphy (2010) terms *alternative product*. He define this as a "very simple, single-purpose [product or service] that solves an immediate, specific and highly targeted need, but which promotes significant network effect and ecosystem opportunities well beyond that application" (Murphy 2010, p. 14). The primary differentiator to what the typologies discuss, is that this product is stand-alone and only an addition to the "flagship product", which is not using freemium.

To distinguish between who should pay and who can use a product or service for free, Chen (2009) suggests that "the key is to create the right mix of features to segment out the people who are willing to pay, but without alienating the users who make up your free audience." And this is exactly what Hudson (2009) see as a problem, stating that "It is very difficult to properly segment users and features such that you provide enough value to both paid and free audiences."

2.4 SO, WHAT DO USERS PAY?

In their report on freemium, the consultancy Sixteen Ventures claim that when using freemium "the majority of users likely have no intention of ever becoming a customer" (Murphy 2010, p. 6). In a regular non-free purchase of a product there is a *quid pro quo* — money in exchange for the product — which is not as clearly eminent in freemium, as most customers might *never* pay for using the product or service. Is there then a quid pro quo for freemium, and if so, what is it?

According to Sixteen Ventures themselves the quid pro quo is about getting the users attention and utilizing this attention to make money — "it only makes sense to seek ways to benefit from and monetize their usage of the system" (Murphy 2010, p. 6). With a somewhat different view, Pujol (2010) terms the quid pro quo as *mind share*, and defines it as "the development of awareness for the provider's brand and the consideration for purchase of future commercial products and service" (Pujol 2010, pp. 2–3). In the former view the focus is on utilizing what the company can learn from users, while the latter focus on marketing aspects of freemium. Without taking any stands between these two positions, we see that there is still a quid pro quo, it is, however, different from the classical money in exchange for product.

2.5 RESEARCHING FREEMIUM

Currently a third of the top grossing iPhone apps use a freemium model (Kim 2010). Freemium is also heavily used in Facebook applications, with the most famous actor, Zynga, now valued at $5.5 billion USD (Morris 2010). In addition to the examples we have seen earlier, we see that freemium is used by several prominent actors. However, at the same time there are considerable uncertainties as many companies are experiencing considerable problems. Rekhi (2010) claims:

I believe we are still early in our understanding of [freemium] and to date most of the available analysis has been limited to anecdotal evidence, one-off case studies, tips & tricks, and a few early overviews of what's been tried.

Tongue-in-cheek we can say that generally the yiddish proverb "For example is not proof" seems appropriate, and clearly research on freemium is highly needed.

Chapter 3

Theory

This chapter is meant to give a better understanding of the problem from a theoretical perspective. To understand freemium in relation to business models, how it works and its implications, we must first understand what business models are, how they work and what they imply. Thus, this section starts with a brief review of the literature concerning the business model concept and a related framework. Subsequently, two central aspects of freemium is discussed, information goods and free. The concept of information goods is explained to build a better understanding of digitized products and services, while we discuss free to better understand the implications of giving away a product or service gratis. The chapter concludes with important implications from the theory.

3.1 BUSINESS MODELS

The business model affect an organization's potential for creating and capturing value (Amit and Zott 2001), and is a key component of organizational success (Baden-Fuller et al. 2010; Chesbrough 2010). Additionally, the choice or design of a business model can be a source of competitive advantage (Christensen 2001; Gambardella and McGahan 2010; Teece 2010; Malone et al. 2006; Casadesus-Masanell and Ricart 2010; Zott and Amit 2008). Chesbrough (2007, p. 12) goes as far as claiming that "a better business model will beat a better idea or technology."

With the advent of the Internet, business models have become extensively discussed (Rajala et al. 2003; Zott and Amit 2008; Demil and Lecocq 2010; Ghaziani and Ventresca 2005; Sosna et al. 2010; Teece 2010),[1] and the Internet has led entirely new business models to become viable (Petrovic et al. 2001; Geoffrion and Krishnan 2003). Research on business models can be organized around

[1] A limitation with regards to the research on business models is that only few contributions have appeared in top journals (Zott et al. 2010).

two complementary streams (Zott et al. 2010): *1*) Describing generic business models and providing typologies, *e.g.* the *auction model* and the *Dell model*; and *2*) Describing components of business models, *e.g.* revenue streams and customer segments. . In this paper the latter is the most relevant, and will thus be the primary focus of this review.

Even though there have been much focus and research, there is still no generally accepted definition of the business model concept (*e.g.* Shafer et al. 2005; Pateli and Giaglis 2004; Osterwalder et al. 2005; Teece 2010; Baden-Fuller and Morgan 2010; Zott et al. 2010), for example Porter et al. (2001, p. 74) argues that the definition is "murky at best".

3.1.1 What is a business model?

As there are no generally accepted definition of a business model, I will very briefly review the most cited definitions, compare them, and then choose a definition for the remainder of this paper.

Timmers (1998) had the initial definition of a business model with respect to the Internet.[2] He focused on the flow of products, information, and money, and defines a business model as *1*) an architecture for the product, service and information flows, including a description of the various business actors and their roles; *2*) a description of the potential benefits for the various business actors; and *3*) a description of the sources of revenues. Similarly Weill and Vitale (2001, p. 34) defined a business model as a "description of the roles and relationships among a firm's consumers, customers, allies, and suppliers that identifies the major flows of product, information, and money, and the major benefits to participants." From both definitions we see a focus on identifying the primary components of a business model and their possible interrelationships. The only evident difference between these definitions is that Timmers (1998) only mention "business actors" without specifying who these are, while Weill and Vitale (2001) are far more specific.

However, missing from both Weill and Vitale (2001) and Timmers (1998), is a focus on customer value, a central element of business model definitions by many prominent researchers. For Linder and Cantrell (2000) a business model's focal point is on the core logic for creating value, and similarly Amit and Zott (2001, p. 512) defines a business model as "the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities." Thus, both are focused on creating value, but interestingly Amit and Zott (2001) also include business opportunities, which all other reviewed definitions do not mention.

[2] Which he termed "electronic markets."

Where the latter two definitions focus on the creation of value, Chesbrough and Rosenbloom (2002) is concerned with "realization of economic value." Thus, this definition is primarily focused on a business being able to generate a profit, while the former value oriented definitions have a broader view on value. Teece (2010, p. 179), as Chesbrough and Rosenbloom (2002), focuses on this economic value, by including "a viable structure of revenue and costs for the enterprise" in his definition. However, a contrast between these definitions is that Teece (2010) specify that this economic value is a result of delivering a value to customers. Building on, amongst others, these definitions Osterwalder and Pigneur (2010) define, as explained thoroughly in Osterwalder et al. (2005), a business model as "the rationale for how an organization creates, delivers and captures value." As we see, this completes the picture from these value oriented business models by including all three elements — value creation, delivery and capture — that are mentioned with varying degree in the other definitions.

Gordijn (2002) focused on graphically representing the business model, and looked at it as a conceptualization of a business idea. The focus in his methodology was showing which parties exchanged things of economic value with whom, and what they expected in return. Another definition primarily focused on revenue, is Rappa (2000) who sees a business model as "the method of doing business by which a company can generate revenue to sustain itself."[3] While not specifically focused on revenue, the definition in Zott and Amit (2008) is similar to these definitions in their focus on a firm's transactions with customers, partners and vendors.

More abstract than all the other mentioned business model definitions, is Magretta (2002, p. 4), who see a business model as a "story that explains how an enterprise works." In explaining this definition, however, he introduce several of the elements elaborated by other definitions, such as creation and delivery of value, and how to make a profit.

Based on the definitions we have discussed so far, we see that the research has explored many different directions, and that the definitions vary with regards to degree of abstractness and completeness. There are three aspects that summarizes most business model definitions, namely their focus on creating, delivering and capturing value (Osterwalder et al. 2005; Itami and Nishino 2010; Sosna et al. 2010; Teece 2010; Zott et al. 2010). Based on this, the definition in Osterwalder and Pigneur (2010) will be used in this paper. This definition include these three elements specifically, in addition to the further elaboration of the definition include all the components found by Pateli and Giaglis (2004) to be apparent in most research on the atomic elements of business models.

[3] Which is in line with the notion of viable in this paper.

Thus, the implications for this paper is that looking at freemium in the context of business models entails an examination of value creation, delivery and capture, in addition to the the atomic elements of this frameworks, which will be discussed in § 3.1.3 (p. 13).

An important note on business models, is that business models and strategy are distinct constructs (Chesbrough and Rosenbloom 2002; Magretta 2002; Seddon and Lewis 2003; Zott and Amit 2008; Teece 2010; Zott et al. 2010): While the focus in a business model is on a firm's exchanges with others, strategy is more about the firm's activities and actions in light of competition.[4] As Porter (1996) describes, "the essence of strategy is choosing to perform activities differently than rivals do." Thus, when looking at freemium in this paper, competition will not be considered.

3.1.2 *Business models & the aspect of time*

"Innovation distinguishes between a leader and a follower." — Steve Jobs, CEO and co-founder of Apple, Inc.

Business models have mainly been researched from a static point of view (Osterwalder et al. 2005), but recently the aspect of time has been incorporated into the business model research (Sosna et al. 2010). According to Chesbrough and Rosenbloom (2002) and Chesbrough (2010) successful businesses are those that are able to experiment with their business model, and Linder and Cantrell (2000) suggest that firms should actively pursue business model changes. Sosna et al. (2010) notes that even incremental changes to a business model can have significant effect of its success, and states that business model experimentation can be strongly beneficial for a firm to "ensure sustainable value creation, robustness and scalability" (Sosna et al. 2010, p. 400).

Interviewing 765 leaders in corporate and public sectors, Rometti (2006) found that the financially best performing firms invest twice as much as the under-performers on business model innovation. Giesen et al. (2007) argue that business model innovation comprises three types, which, separately or combined, can lead to increased financial performance:

1 *Industry.* Innovating the value chain, *e.g.* horizontal moves, such as Apple's move from computers to music, ads and phones; moving into new industries; or developing entirely new industries or industry segments.

[4] There are many intricacies to the discussion of strategy versus business models, but a more formal clarification and discussion is outside the scope of this paper. The point here is only to clarify that they are not equivalent constructs.

2 *Revenue.* Innovating how the firm generate revenues, *e.g.* by introducing new pricing models, such as freemium, or creating new demand in an uncontested market space — a *blue ocean* (Kim and Mauborgne 2004).
3 *Enterprise.* Innovating the role the firm plays is new or existing value chains, *e.g.* by redefining the organizational boundaries or by specializing.

There are several barrier to experimenting with a firm's business model (Chesbrough 2010), *e.g.* managers might resist experiments which can threaten their value to the company (Amit and Zott 2001); organizations with established business models that are able to conceive the disruptive technology, but are not able to act on it (Bower and Christensen 1995; Christensen 1997; Christensen and Raynor 2003); and organizations can become path dependent if their established business model is successful (Chesbrough 2010; Tushman and Anderson 1986).

According to Chesbrough (2010) one way of overcoming barriers to business model experimentation is to construct maps of business models, which provide a pro-active way to experiment with alternative models. This is essentially about understanding how the business model works for the organization and how it can be changed to improve the organization's chance of success.

The essential knowledge we can draw from this, is the importance of continually innovating the business model. Thus, exploration, not only exploitation, as discussed by March (1991), is vital to succeed.

3.1.3 Framework — The Business Model Canvas

To look deeper into business models the framework in Osterwalder and Pigneur (2010) — *The Business Model Canvas* — can be used. This framework is mentioned in Chesbrough (2010) as one example of a pro-active way for an organization to experiment with alternative models. The framework consist of nine *building blocks*, illustrated in which are defined as follows:

- *Customer Segments.* The different groups of people or organizations the company aims to reach and serve. Based on this decision, a business model can be carefully designed around a strong understanding of specific customer needs.
- *Value Propositions.* The bundle of products and services that create value for a specific customer segment. The value proposition is the reason why customers choose one company over another.
- *Channels.* How a company communicates with and reaches its customer segments to deliver a value proposition. Communication, distribution, and sales channels comprise a company's interface with customers. Finding the right mix of channels to satisfy how customers want to be reached is crucial in bringing a value proposition to market.

- *Customer Relationships.* The types of relationships a company establishes with specific customer segments. Relationships can range from personal to automated, and may be driven by the following motivations: Customer acquisition, customer retention, and boosting sales, *i.e.* upselling.
- *Revenue Streams.* The cash a company generates from each customer segment. A revenue stream can either come from transaction revenues from one-time customer payments or from recurring revenues from ongoing payments.
- *Key Resources.* The most important assets required to make a business model work. Different key resources are needed depending on the type of business model. Key resources can be physical, financial, intellectual, or human.
- *Key Activities.* The most important things a company must do to make its business model work. Key activities differ depending on business model type. Can be categorized into production, problem solving, and platform/network, *i.e.* what Stabell and Fjeldstad (1998) term *chains*, *shops* and *networks*, respectively.
- *Key Partnerships.* The network of suppliers and partners that make the business model work. Companies create alliances to optimize their business models, reduce risk, or acquire resources. This can either be to optimize and achieve higher economies of scale, to reduce risk and uncertainty, or to acquire particular resources and activities.
- *Cost Structure.* All costs incurred to operate a business model. Low cost structures are more important to some business models than to others, therefore it can be useful to distinguish between two broad classes of business model cost structures, cost-driven and value-driven, which is similar to *cost leadership* and *differentiation* discussed by Porter (1980).

The connections between these building blocks can be seen in Figure 3.1.3. As this is very comprehensive, all these building blocks will not be thoroughly discussed throughout the analysis and discussion. However, the interesting aspect of this with regards to this paper, is which of these are deemed interesting and important when examining cases.

3.1.4 Business Model Theory & Freemium

Freemium has been described in several ways, *e.g.* as a business model (Wilson 2006), revenue model (Parker 2008), pricing strategy (Lunn 2010), distribution model (Dahlquist 2010), marketing technique (Semeria 2009), and architectural model (Bhullar 2010). In this paper neither of these are corrected or falsified, as how freemium is categorized is of no importance to the essence of this paper. This paper is based on the premise that freemium will have effect on decisions regarding most or all the different elements in the business model. Lets look closer at some of these.

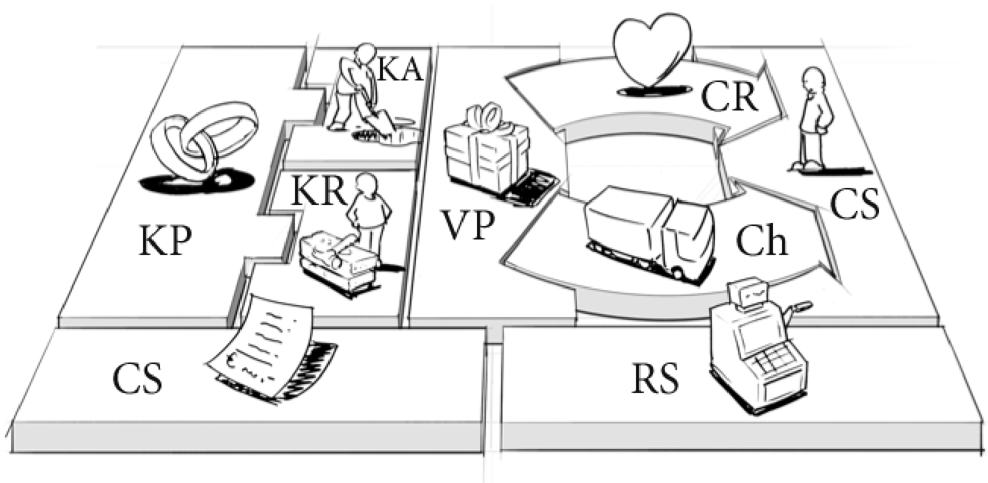

Figure 3.1: The Business Model Canvas, illustrating the connections between building blocks.

For freemium, an important question is who pays and who gets the product or service for free. Failing to segment the customers properly can end in trying to sell the product or service to those that are not willing to pay. A wrong segmentation can also be that those that are segmented as free users are actually not interested in ever converting to paid users, or otherwise paying for themselves. Thus, a good customer segmentation seems essential for freemium.

As freemium entails giving away the product or service for free, possibly into perpetuity, the chosen channels must have a very low cost, at least for the free users. An example of this is VoIP provider Skype, which is almost entirely based on peer-to-peer technology, lowering their marginal cost to very close to zero.

For free users, we can assume that automation is key when it comes to customer relationships. The less automated the customer relationships are, the more the company will lose on the free users. Thus, customer acquisition must be cheap, the customer retention rate must be high, and there must be enough conversion from free to premium. If either of these three are present, there appear to be problems with using freemium.

Understandably the cost structure is one of the essential elements of a freemium based business model. If an organization is not able to have a very low cost of operation, it is not possible to use freemium. At least the cost structure must be sufficiently low for the the free users, and sufficiently low on average over all users to justify giving a product or service for free.

As we see, freemium will have a clear impact on a company's business model. Freemium helps in capturing, understanding, and visualizing the business logic of giving away something for free and charging a premium for something else.

3.2 INFORMATION GOODS

An *information good* is anything that can be digitized (Varian and Ginko 1999). An important feature of information goods is that they are expensive to produce and cheap to reproduce (Varian 1995, 1997). Pricing the product according to the marginal cost will not make sense in this context, since the marginal cost will be zero (or negligible) (Varian 1997; Shapiro and Varian 1999; Mahadevan 2000). Rather, it should be based on value (Varian 1997). On the other hand, Anderson (2009) argues that "practically everything Web technology touches" will end up as free for consumers, as the marginal costs are approaching zero and prices are approaching the marginal cost since "there's never been a more competitive market than the Internet."

Based on the arguments in Varian (1995) it is likely that the prediction of free products on the Internet in Anderson (2009) only yields for *purely competitive markets*, *i. e.* when there are "several" producers of an identical commodity. On the other hand, it is not necessarily true[5] for markets with *monopolistic competition*, *i. e.* when there are several somewhat different products some of which are close substitutes. The focus in this paper is on markets with monopolistic competition, thus when not all products and services necessarily are pressured towards being free.

3.2.1 *Versioning*

Versioning, *i. e.* differential pricing based on quality discrimination, lets consumers *self-select* into different groups according to their willingness to pay (Varian 1997). According to Varian (1997) the fundamental problem is to set the prices such that those users that are able and willing to pay high prices do so. Thus, this is the essential quandary with regards to customer segmentation, one of the building blocks in the Business Model Canvas, as discussed in § 3.1.3 (p. 13).

Determining a users willingness to pay is difficult as consumers are not eager to reveal their true willingness to pay (Varian 1995). As such, pricing needs to be based on something that is correlated with willingness to pay, *e.g.* observable characteristics, such as memberships in certain social or demographic groups; or unobservable characteristics, such as the quality of the choice the consumer purchases. An interesting aspect of the Internet and freemium with regards to this,

[5] But it might be true. There are still no available academic research specifically relating to this statement, and Varian (1995) was written before the implications of the Internet where clear.

is how easy it has become to experiment with pricing plans to find out how much users are willing to pay.

3.3 FREE

When talking about free, there is a distinction between *gratis* and *libre* — which can be thought of as "free as in free beer" versus "free as in free speech," respectively.[6] When talking about free in this paper, the focus is on gratis, not libre.

In traditional economic theory there is an inverse relationship between price and quantity demanded (O'Sullivan and Sheffrin 2003), but what happens when the price becomes zero? According to Shampanier et al. (2007) people perceive the benefits associated with free products as higher. Thus, decreasing the price to zero increases perceived value considerable more — people overreact to free products. Shampanier et al. (2007) also saw a decrease in the demand for the more expensive product when including a free offer. They termed these two findings the *zero-price effect.* Driving this effect can be that the decision to choose a free product is a much simpler decision (Tversky and Shafir 1992; Luce 1998; Iyengar and Lepper 2000; Diederich 2003).

Haruvy and Prasad (2001) found that, in order to not cannibalize the premium offer, the quality of the free offer must be sufficiently low and the price of the premium offer must not be too high — but, importantly, the free offer must not be of too low quality; it must induce customers to use it.

According to Shampanier et al. (2007) there is still much additional work needed to properly understand the complexities of gratis products. However, the research thus far on free software can be broadly categorized into three categories (Jiang 2010):

1. *Network externalities*, in which free adopters increase future adopters' valuation of a product.
2. *Demonstration effects*, in which users can try the software before buying.
3. *Word-of-mouth effects*, in which free software adopters help speed up the diffusion of a new product.

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[6] This is how Richard Stallman, an American software freedom activist and computer programmer, differentiates software that is free to use and software that is freely available for users to change and extend (Stallman 2010).

3.3.1 Network externalities

When a network externality is present, the value of a product or service increases as more people use it (Katz and Shapiro 1985) — the classic example being telephony, as having a telephone is only valuable if there are other people with compatible telephones. The value can be seen in regards two eponymous laws: *1) Metcalfe's Law*, which states that the value of a network is proportional to the square of the number of connected users of the system (Metcalfe 1995; Shapiro and Varian 1999; Hendler and Golbeck 2008); and *2) Reed's Law*, which states that the utility of large networks, particularly social networks, can scale exponentially with the size of the network (Reed 2001). He call these *group-forming networks*, wherein network members can create and maintain communicating groups.

One of the problems with distributing free versions of a product, is that it can cannibalize sales of the premium version; thereby lowering the profits for the firm (Haruvy and Prasad 1998). On the other hand, the price users are willing to pay is, in part and *ceteris paribus*, determined by the number of users in the network to which the product belongs (Brynjolfsson and Kemerer 1996), and establishing this initial network is simpler when giving away the product for free (Haruvy and Prasad 2001).

As it is advantageous to achieve a significant share of the market quickly (Brynjolfsson and Kemerer 1996; Katz and Shapiro 1992), the initial purchase should be made as easy as possible. This is especially important since the network benefits are lower for the early adopters. Lee et al. (2003) divided customers into two types: power users and light users. Power users are less sensitive to compatibility, *e.g.* lock-in, than light users, and also assumed to be keener to new technologies.[7] Thus, segmenting the customers such that the initial customers are power users, can make their initial purchase simpler.

Two-sided markets, also called two-sided networks, are economic platforms having two distinct user groups that provide each other with network benefits (Parker and Van Alstyne 2005; Rochet and Tirole 2006), *e.g.* credit cards (cardholders and consumers), hospitals (patients and doctors), and Google (searchers and marketers).

According to Rysman (2009), pricing and openness are the two most important strategies for a potential platform. With regards to pricing, it is not only dependent on the demand and costs that consumers bring to one side of the market, but also how their participation affects participation and profit on the other side (Rysman 2009). Thus, we see that prices depend on demand elasticities and

[7] Power users can be seen as what Moore (2002) categorize as *technology enthusiasts* or *visionaries*, and light users as *pragmatists* or *conservatives*.

marginal costs on each side (Rochet and Tirole 2003, 2006; Weyl 2009), which means that lower prices on one side leads to higher prices or more participation on the other side.

What Parker and Van Alstyne (2005) finds, is that profit can be maximized even when pricing below marginal cost in the absence of competition, *e.g.* the product can be rationally given away for free into perpetuity, even when not competing. The key is is low marginal costs, not non-rivalry. The reason for this potentially being profit-maximizing is that increased demand in a the premium goods market more than covers the cost of investment in the free goods market (Parker and Van Alstyne 2005; Rysman 2009). With competition, the sum of prices on the two sides of the market, *i.e. price level*, decreases (Weyl 2006).

A market where there is externalities between the users of the free version and the users of the premium version, can be seen as a two-sided market (Parker and Van Alstyne 2005). The segment that contributes more to demand for the other is the market to provide with free goods (Parker and Van Alstyne 2005).

3.3.2 Demonstration

Compared to network effects, product demonstrations play on the intrinsic features of the product, not the extrinsic. According to Faugère and Tayi (2007) a primary purpose of offering a free sample is to increase sales by providing first-hand experience for potential buyers. Being able to try a product before buying has been shown to play a significant role in the adoption of information technologies (Agarwal and Prasad 1997), and in their study of the market for Web server software Gallaugher and Wang (2002) found that trial versions were associated with price premiums.

As for network externalities, Gallaugher and Wang (2002) found that being able to try the product before buying it help seed the initial market.

From the typology discussion in § 2.3 (p. 6), we see that all freemium products or services have demonstration effects, however to different degrees. To exemplify this, we see that distinguishing by customer class there might be demonstration effects for consumers, but not for companies.

3.3.3 Word-of-mouth

Jiang and Sarkar (2009) found that even if other benefits do not exist, *i.e.* network externalities or demonstrations, a company can still benefit from giving away fully functioning software as the free adopters help speed up the diffusion process, *e.g.* giving away software the first month it is in sales. The different methods free adopters can use to help speed up the adoption of the product is verbally, *e.g.* spreading information about its availability and quality, or nonverbally, *e.*

g. through others seeing the product in use, peer pressure, or social influence — together these are referred to as a *word-of-mouth effect* (Jiang and Sarkar 2009).

As for both network externalities and demonstrations, the influence of word-of-mouth means that companies can increase their profit when they have a free offer (Jiang and Sarkar 2009).

However, an important consideration with regards to Jiang and Sarkar (2009) is that their study focuses on free software that is offered without any restrictions, while for freemium we would either see time or functionality limitations. No study was found that discussed this more specifically for freemium.

3.4 IMPLICATIONS FROM THEORY

During the preceding chapter relevant theory for exploring freemium have been examined — business models, information goods and free. These are all elemental in understanding freemium, but is not enough to discuss the research question in this paper, namely how and why companies have succeeded and failed when using freemium. However, from these three areas of research we have a foundation to build a fruitful discussion aimed at answering this question.

There are some notable implications from the preceding theory. First of all, a business model have been defined as the rationale for creation, delivery and capturing of value. Thus, for an organization to profitably use freemium, it can be assumed that all these three elements will have a central position. Freemium has also been mapped to the *Business Model Canvas,* which showed that freemium will have an impact on many disparate components of a business model. This thus imply that an organization must be well-aware of the choices they are making when designing a freemium based business model, as it is not only related to the revenue stream or some other component, but to a range of components.

From information goods we have the core tenets, value-based pricing and versioning, which are both assumed to be fundamental in understanding pricing of freemium-based products or services. From our last endeavor, free, we found that decreasing the price to zero increases perceived value considerable more. We also found three elements which is assumed to be important for freemium; network externalities, demonstration, and word-of-mouth.

As the remainder of this paper investigates empirically the research question, the notions that have been presented in this chapter are brought in to the analysis and discussion.

Chapter 4

Methodology

It is the problem statement that determines the methodology used (Berg 2007). The research in this paper is related to how and why companies have succeeded and failed using freemium. This is a wide problem statement, and this will have an impact on the methodology chosen, in the sense that it touches on choice of research strategy, choice of research design, on the specific methods for collecting data, and how the data is analyzed. This is what the following chapter considers.

4.1 CHOICE OF RESEARCH STRATEGY

As the key theoretical themes of freemium are weakly developed, a more open-ended research strategy is employed — a qualitative methodology. According to Eisenhardt (1989) a qualitative approach can make a significant contribution to theory development. Berg (2007) claims that the qualitative methodology is better than a quantitative methodology for going in depth to find the typical phenomenon that we wish to explore — as Bryman (2008) states, it is about theory emerging from research, rather than the other way around.

4.2 CHOICE OF RESEARCH DESIGN

To answer the research question in this paper, a comparative case study methodology is used. Case studies often ask "how" and "why" questions (Tellis 1997), as this paper does. In addition the research question relates to both successes and failures, another reason why a comparison is apt. A comparative case study enable a detailed and intensive analysis of a set of cases, and facilitates theoretical reflections based on the distinguishing characteristics of these cases (Bryman 2008). As there have been little to no research specifically on freemium thus far, and as this paper is a prelude to a larger and more comprehensive investigation of freemium in an ensuing Master's Thesis, an exploratory approach is used.

4.3 CHOICE OF RESEARCH METHOD

There are many possible sources of evidence in case studies, including documents, interviews, and participant-observation (Tellis 1997). For the purpose of answering the research question in this paper, an unobtrusive measure was chosen. For that reason this paper is based on the extensive public information sharing of companies that have used or is still using freemium.[1] As such, the research method used in this paper is qualitative content analysis.

Content analysis is about interpreting meaning from the content of data, and the goal is "to provide knowledge and understanding of the phenomenon under study" (Downe-Wamboldt 1992, p. 314). Krippendorff (2004, p. 18) defines it as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use." This paper entails a subjective interpretation of the information shared from the chosen companies.

4.4 SAMPLING & CASE SELECTION

The cases are not chosen randomly, they are sampled purposively to maximize the theoretical inferences that can be made from them (Eisenhardt 1989; Flyvbjerg 2004). The goal is not generalizability, but to get a deeper understanding of freemium.

Bryman (2008) distinguishes five types of cases: critical, extreme, typical, revelatory and longitudinal. To identify key success factors, we will look at extreme cases — specifically those that have either succeeded or failed when using freemium. The reason for this is that these often reveal more information as they activate more basic mechanisms in the situation studied (Flyvbjerg 2004).

The process for selecting cases comprises three steps. First of all a comprehensive collection of cases that have been or is still using freemium is assembled. These cases will be screened on whether or not they have extensively shared information about their use of freemium, which is subjectively measured from case to case as the information is inherently unstructured and in different channels. This process will primarily be performed using search engines such as Google and Bing, blog

[1] Especially the second generation of web sites, often termed *Web 2.0*, has increased the information sharing of companies. This include company blogs, conferences, podcasts, sharing sites such as Twitter (http://twitter.com), discussion sites such as Hacker News (http://news.ycombinator.com), Q&A sites such as Quora (http://quora.com), and many other places.

networks such as Techcrunch and ReadWriteWeb, and link sharing sites such as Reddit and Hacker News.[2]

Secondly, the found cases are classified according to how relevant they are for the paper, *i.e.* whether or not they are successful, how much information they have shared about using freemium, in which media they have shared information, and how credible the available information is. Judging their success or failure will be based on whether or not they have been able to create a viable business model. As stated in the introduction, success in this regards is defined as the company having been able to profitably use freemium. In many cases this is not evident, and these cases are less likely to be chosen, but they will not be set aside entirely. If they show signs of being successful or unsuccessful, which is subjectively measured, they are still selectable.

Thirdly, a subset of the cases, including both successful and unsuccessful, are chosen. The primary reason for examining both types, is that the non-successful companies may show some of the same characteristics as the successful ones (Fritz 2004).

4.5 DATA COLLECTION

When the cases are chosen, data collection will begin. As data is already collected to choose cases, this entails a more thorough investigation into the chosen cases. This process will, as for finding cases, primarily be performed using search engines such as Google and Bing, blog networks such as Techcrunch and ReadWriteWeb, and link sharing sites such as Reddit and Hacker News.

Data will be accepted if it pertains to the chosen case and is shared either by a founder; someone at the "CXO level", *e.g.* the CEO or COO; an investor; or if it is public information from the company, *e.g.* an annual report. Accepted sources are any than can be subjectively trusted, *i.e.* secondhand information such as interviews by newspapers or other publications, but will focus on those that can be objectively trusted, *e.g.* company blogs, video interviews, what these sources have written on their own blogs, and other similar sources. All types of sources are accepted, thus there are no limitations on it having to be written data.

The collection of data is performed over a short period of time, but there are no limitations as to when the data was published, though newer information is preferred.

[2]These can be accessed on http://google.com, http://bing.com, http://techcrunch.com, http://readwriteweb.com, http://reddit.com, and http://news.ycombinator.com, respectively.

4.6 DATA ANALYSIS

As said, this paper is based on a qualitative content analysis. Sources accepted are both textual and non-textual, and the latter will be partially transcribed. Further transcription is not deemed necessary, as the sources are publicly available.

The analysis of data is performed in a way that is reminiscent of *grounded theory,* which is primarily concerned with development of theory out of data (Bryman 2008). Grounded theory should however be seen as an ideal rather than something that is possible, as Bryman (2008) states: "It is rarely accepted that theory-neutral observation is feasible."

From the transcriptions and textual sources, the units of data are categorized using inductive categories developed from the data themselves, which are compared to find consistencies and differences. Thus, this involve constant comparison between data and conceptualization.

4.7 RELIABILITY & VALIDITY

Evaluation of qualitative data is not as well-defined as for quantitative data, where *reliability* and *validity* are used, as these two are viewed as positivistically oriented (Bryman 2008). In addition to these two concepts, Bryman (2008) presents two other stances for qualitative data, *trustworthiness* and *authenticity*. However, for the purpose of this paper the concepts of reliability and validity are used.

For reliability and validity in a qualitative context, Bryman (2008) suggests four concepts: *External reliability,* relating to the degree to which a study can be replicated; *internal reliability,* relating to inter-observer consistency; *internal validity,* meaning that there is a good match between the researchers' observations and the theoretical ideas developed; and *external validity,* which relates to generalizability.

To increase the replicability of this paper, and thus the external reliability, the research process is thoroughly described. Adding to the replicability is the fact that the paper is based on publicly available information and is unobtrusively measured. As there are only one observer, there is no problem with regards to inter-observer consistency, and it can therefore be said to be a consistency in the research process.

To increase the internal validity of the paper *low inference descriptors*, *e.g.* verbatim accounts of the gathered data, and *pattern matching*, *e.g.* by examining multiple cases, are used (Johnson 1997). Additionally the analysis is only based on the *manifest content*, *i.e.* those elements that are physically present, and is not based on an interpretive reading of underlying meanings. Other strategies for increasing the internal validity are *triangulation* and *respondent validation*, but these are seen as outside the scope of this paper because of time limitations.

This paper makes no try to generalize the findings to other contexts or settings. The focus is on understanding the area under investigation, freemium, in order to build a base for an ensuing Master's Thesis. The external validity is, however, increased by the reader having access to all the collected information to decide whether the findings might be transferable to other settings (Payne and Williams 2005).

For assessing the quality of documents, Scott (1990) and Berg (2007) each suggests four criteria, that can be summarized as follows:

1. *Authenticity.* Is the evidence genuine and of unquestionable origin, *e.g.* whose Web site is it?
2. *Credibility.* Is the evidence free from error and distortion? Can it be corroborated?
3. *Representativeness.* Is the evidence typical of its kind? Is it current or dated?
4. *Meaning.* Is the evidence clean and comprehensible?

The Internet has a huge potential as a source of documents, but at the same time it "contains a great deal of misleading and downright incorrect information" (Bryman 2008). Using these four criteria we can be more certain to the validity of the collected information, and they are therefore used when subjectively accepting or rejecting information. As the relevant discussion for these criteria can be seen from earlier discussions in this paper, they will not be further elaborated here.

Chapter 5

Presentation of the four cases

Using the process outlined in the methodology, four cases was chosen — three successful and one unsuccessful — from an initial list of 49. This chapter presents the empirical findings for each of these cases, starting with a summary in Table 5.1 of the rationale for choosing each case.

Name	Rationale for selection
LogMeIn	Publicly traded with a market capitalization of $1 billion USD, thus a highly successful freemium-based company. The only among the four using an alternative product strategy.
Evernote	Have been very public about their numbers and has an exponential revenue growth. Have no network effects, but at the same time don't spent money on advertising. Very strong word-of-mouth effects.
MailChimp	Had been a premium-only company for eighth years when they changed to freemium, and experienced a tremendous growth both in users and profit.
Helpstream	One of few companies that have been very public about their failure with freemium. More business-to-business oriented than the other case companies.

Table 5.1: The four cases, including a rationale for why each was chosen.

5.1 CASE 1 — LOGMEIN

LogMeIn[1] delivers a suite of software services that provides remote access to computers over the Internet for both end users and professional help desk personnel. They launched in 2003 and are now publicly traded at NASDAQ, with a market capitalization of more than $1 billion USD.

LogMeIn has a suite of nine applications, all of which are *Software-as-a-Service* (SAAS).[2] Two of these nine applications, *LogMeIn Free* and *LogMeIn Hamachi*[2], have elements of free. Thus, LogMeIn uses the alternative product strategy, as discussed in § 2.3 (p. 6).

At the end of Q3 2010, LogMeIn had 10.4 million users, of which 490 000 — just above 4.7% — where paying customers. However, in this last quarter 12% of their new users, 85 000 of 700 000, chose on of the premium products, almost three times the total rate. For 2009 the company reports a gross margin of 90% — which include the cost of the free users. This number is up from 85% a year earlier, indicating that they increase their revenue faster than the cost of revenue grows. They also reported a net income of 12% of their $74.4 million USD revenue in 2009, which is a revenue growth of 44% year-over-year. In addition to this, the company reports a 80 percent year-over-year retention rate among subscribers.

The company states that they "acquire new customers through word-of-mouth referrals from [the] existing user community and from paid, online advertising designed to attract visitors to [the] website." Each new paying customers comes at a cost of $300, but has an average lifetime revenue of $1500. According to the company they can get customers at such a low cost because of their "efficient customer acquisition model," in which their freemium offering is front and center — as they state: "We grow our community [. . .] by offering our popular free services," and it is this community that "generate word-of-mouth referrals" and thus increase awareness for their premium services. LogMeIn views this customer acquisition cost as one of their "key competitive factors."

LogMeIn is built on their proprietary and patented platform technology, which according to them gives the company a cost advantage that allows them to offer some of their services for free, even to the majority of users. They believe this lets them serve a broader user community than their competitors — "we reach significantly more users which allows us to attract paying customers efficiently." They have explained their free offering as putting a "neutron bomb on the competitive landscape."

[1] The presentation of LogMeIn is based on their sharing of information in LogMeIn (2009, 2010); Moore (2010); Seitz (2010); Vance (2009).

[2] Software-as-a-Service is defined by Sääksjärvi et al. (2005, p. 185) as "time and location independent online access to a remotely managed server application, that permits concurrent utilization of the same application installation by a large number of independent users."

LogMeIn sell their software to both consumers (B2C) and businesses (B2B), however, both of their free products are aimed at non-commercial use, and thus primarily at consumers. All LogMeIn's premium services are subscription based, and "the majority of our customers subscribe to our services on an annual basis." The company do not specify any numbers of unpaid and paid subscriptions on each service, only the sum for all of theme. However, they specify that their revenue comes primarily from SMBs, IT service providers and consumers.

During 2009 they used 48% of their revenue on sales and marketing, thus they commit significant resources to reaching new customers, but when they compare themselves to their largest competitors they state that, while these "attract new customers through traditional marketing and sales efforts, [we] have focused first on building a large-scale community of users." The primary rationale for doing this, according to the company, is that they are competing in a competitive market with low barriers to entry. They state that: "We believe our large user base also gives us an advantage over smaller competitors and potential new entrants into the market by making it more expensive for them to gain general market awareness." Thus, LogMeIn competes with companies using freemium by using freemium themselves.

According to LogMeIn CEO Michael Simon, their free service is "the oxygen supply to our business."

5.2 CASE 2 — EVERNOTE

Evernote[3] is a suite of software and services designed for notetaking and archiving, based on the SAAS model. Phil Libin, CEO of Evernote, describes it as an "external brain" and a "universal memory drawer." The company launched in June, 2008, and has more than 5 million users. Of these users, about 160,000, and thus 3.2%, are paying users. Evernote has received $20 million USD in funding from *Sequoia Capital*, one of the most prominent venture capital firms in the world.

The Evernote service has three price plans: free, $5 a month and $45 a year. They are, however, very committed to their free option, stating that "We want most people using Evernote for free." Their premium offering is one of Evernote's five revenue models but stands for almost 90% on revenue.

Evernote does no advertising at all, as "our product is our marketing." This is interesting as their software is "not a social app," as Libin himself states it, are as there are therefore no network externalities. However, according to Libin "98% of our growth comes from people telling their friends". Thus, Evernote has significant word-of-mouth effects.

[3]The presentation of Evernote is based on their sharing of information in Libin (2010a,b,c,d,e); Van Grove (2010); Darlin (2009); Sattersten (2010).

For their customers, Evernote have found that the longer they use the service, the more likely they are to upgrade to the paid version. Thus, the longer they remain customers, the more profitable they become. Usually Evernote have seen about 0.5% of new users becoming paying customers in the first month. In the same first month they usually lose 50-60% of the new users, and usually an additional 5-10% the second month. However, from that point on they almost don't lose any customers at all. Looking 29 months in on a group of users that joined the service the same month, more than 20% have converted to paying. According to Libin, "the more memories users store in Evernote, the more invested they become." In the same vein he has said for freemium to work a company "need a product that increases in value over time."

Based on this gradually increasing conversion rate and as the users of their paid version is "growing much faster than our free user base", Evernote is experiencing an exponential growth in revenue — more specifically they have experienced month-over-month revenue growths of almost double the month-over-month user growth.

The company has a $0.25 USD revenue and variable expenses of $0.09 USD per month per active user, and thus a gross margin of $0.16 USD. Within these numbers are many interesting points. First of all, as they have a low revenue per active user per month, they need to acquire customers very cheaply. The company in fact does no advertising at all, only relying on organic growth, and primarily word-of-mouth. Secondly, they have low variable expenses. According to Libin, they modeled Evernote to be profitable at a 1% conversion rate. Thus, the company is built to have a very low variable expense per user.

Connecting these costs and the fact that Evernote's conversion rate increases with how long they have used the service, Evernote focuses on having a high long-term retention rate. Libin explains this as "[the customers] stay a long time, they convert more as they age, and their costs stay flat — that's what you need to make freemium work."

Evernote has, according to themselves, built their premium version specifically for *power users*, *i.e.* those that very actively use the service, and included several features that are not necessary for most users. An interesting point is that they see an increase in revenue when adding additional premium features, no matter if the converting customer use them or not. Interestingly, this means that conversion from free to premium is not based on use. A possible explanation for this, is that it can be based on the perceived value of the product increasing with the functionality upgrade.

One thing the company states over and over again publicly, is that "People pay for what they love." They are very focused on value creation. An interesting point with regards to this, is that Libin has said that "we just haven't had time to get into heavy price theory yet," and that the primary reason why people upgrade to the premium version is because "they love Evernote." Explaining their pricing, he says that "We decided to go with a single, low price for the premium version to keep the decision for users as simple as possible."

Evernote has not publicly stated their net income, only the fact that they have a positive gross margin, and that it is increasing.

5.3 CASE 3 — MAILCHIMP

MailChimp[4] delivers an email marketing service to design, send, and track HTML email campaigns. The company launched in 2001, and was a premium-only service for eight years, until they changed to freemium in September, 2009. At that point they had 85,000 users, which grew by five times to 450,000 users in the following 12 months. They are now adding 30,000 new users each month, of which more than 13% are paying customers.

In the 12 months from September 2009 when they chose to go freemium, MailChimp increased their number of paying customers with 150% and their profit with more than 650%. According to the company the primary reason for their increased profit, is that their cost of customer acquisition had dropped considerable. In the last quarter alone the cost fell by 8%.

From April 2010 through August 2010 the company saw an increase on their largest pricing plan from 12% to 20% of paying customers. These 20% account for 65% of MailChimp's total revenue, up from 48% in April. Thus, a very important growth factor during the 12 months of freemium was on their most expensive plan — a growth that was considerably cheaper to achieve with freemium.

Ben Chestnut, the CEO of MailChimp, explains that there were two reason for changing to a freemium model. First of all they had an affordable self-serve product which was scalable and had good abuse prevention, and secondly cloud computing made "all [this] even cheaper." Together this means that they had an highly automated system that scaled well, and that was becoming cheaper and cheaper for them to operate and manage. Based on this, they saw an opportunity to grow by using freemium.

However, abuse was one of the elements that troubled the company after going freemium. They saw an increase of more than 350% in monthly abuse related issues. Ben Chestnut explained that solving this problem manually would "would at least have taken 30 human beings," which is almost as many as the 38 that are currently employed at MailChimp. This is one of the problems they have had to tackle by automation to be able to stay with freemium.

[4] The presentation of MailChimp is based on their sharing of information in Chestnut (2010a,b,c).

An interesting aspect of MailChimp's change to freemium, is, as Ben Chestnut states, that "it was also a way to thank our customers." They have seen many users change to a free model, and they are now doubling the free plan and are expecting to see even more convert down to free — but at the same time, see a considerable increase of their premium plans.

5.4 CASE 4 — HELPSTREAM

Helpstream[5] delivered a social customer service and relationship management (CRM) system, based on SAAS, which they explained as "community-driven customer service" — customers helping each other resolve issues and answer questions. The company was founded in 2004, and went out of business in March 2010. The company had about $8.6 million USD in funding.

The company was primarily B2B oriented,[6] and at the end they had 240 users, of which 40 was on the premium service. There was, however, more than 500,000 registered users. Helpstream built an underlying technology that enabled them to achieve a cost of $0.05 USD, 5 cents, per registered user per year, which Bob Warfield, the former CEO of Helpstream, states as "extremely low."

An interesting aspect of Helpstream, is that they had problems with the registered businesses who used freemium. Warfield states that "the biggest problem was that it was not attractive to the *right kind* of customers," as freemium was "self-selecting customers who were most likely to be willing to pay, well, nothing!" In addition, even though they had 500,000 users, these were not customer prospects for Helpstream, and all used the service for free. Thus, the company was not able to generate enough customers to survive.

Another of the company's problem, was that they had internal problems relating to the use of freemium, especially from the Sales and Marketing departments. The problem was Sales saw freemium as something that took away from their commission, and that they then became "actively hostile" — Sales saw freemium as competition. Explaining the problem this created in the organization, Warfield states that "it became almost impossible to talk about the Freemium without polarizing armed camps, which eventually made it a sacred cow."

The primary value Helpstream gained from using freemium was that "the free users gave us a tremendous amount of feedback and testing." It also enabled the company to show momentum in terms of the number of customers. Despite this, Warfield recommend using a trial for "a company like Helpstream." Looking back,

[5] The presentation of Helpstream is based on their sharing of information in Warfield (2010a,b,c).

[6] They had consumer *users* which increased the value for these businesses by being those who contributed to the customer service, but these could not upgrade to a premium version.

he see two elements that could have helped the company; lowering the adoption friction and reducing the transaction friction — thus, making it easier to use and easier to pay, especially as the software once registered “was sterile and did not give them an ability to see it in the context of their intended use.”

Chapter 6

Discussion

This section analyses and discuss the empirical findings, based on the earlier presented theory on business models, information goods and free. This chapter is structured around how and why companies have succeeded and failed with freemium, and from the discussion a set of propositions are created.

First and foremost, this paper examine three companies that are successfully basing their business model on freemium and showing significant positive results from this. Thus, this indicate that it is possible to create a viable business model based on freemium; thereby suggesting that freemium is a potential choice when designing a business model. According to Teece (2010), it is still uncertain as to whether or not business models based on freemium works, the findings in this paper, however, indicate that they can work.[1] On the other side, this paper also show that success is not guaranteed and that there are considerable difficulties when using freemium. From this the following can be proposed.

Proposition 1: It is possible to design viable business models based on freemium.

6.1 CREATING VALUE

All four case companies focus on value creation, delivery and capture, however, to different degrees and with different focus. Evernote is the case company which is most focused on creating value for customers among the four, stating that "people pay for what they love," and that this is what they are continuously focused on. According to Evernote the essence of value creation is to create a product that increase the perceived value over time.

[1] The sustainability of this success is, however, outside the scope of this paper.

However, an interesting aspect appears with regards to Helpstream, the only case company that failed. Bob Warfield, who took over as CEO for the company, has explained how their free version "was sterile and did not give [the registered companies] an ability to see it in the context of their intended used." They were not able to utilize the demonstration effects of the free version, and thereby were not able to create enough value for the free users to convert them to premium. As we saw in § 3.3.2 (p. 18), Faugère and Tayi (2007) explains that a primary purpose of offering a free sample is to increase sales by providing first-hand experience for potential buyers. As Helpstream was not able to do this, their company had problems converting free users. All the other three case companies have been successful at this. From this we can propose:

Proposition 2: The free version must convince a large enough subset of users to convert to paying customers by conveying the added value of the premium version.

Another interesting aspect of value creation, is the extent to which word-of-mouth was a focus among the case companies. Evernote goes as far as stating that "98% of our growth comes from people telling their friends." LogMeIn see word-of-mouth as on of the most important parts of their customer acquisition process, which they see as a key competitive advantage. Thus, an important aspect of freemium seems to be users telling others about a product or service, and therefore the product must be created to achieve this. Helpstream was not able to do this to a large degree, and was therefore not able to achieve a strong growth in companies registered. An aspect of this can that they only charged for B2B and not B2C, however, discussing this is outside the scope of this paper.

When discussing their use of free, all four companies focus on using freemium as a marketing tool to reach more customers and to lower the cost of customer acquisition. According to Helpstream CEO Warfield a company should think of freemium as marketing. In the same vain, Libin says "Make your product free so that you don't have to pay for traditional marketing." Similar statements come from the other two companies, *e.g.* LogMeIn's statement "We believe our free products [...] help to generate word-of-mouth referrals". And it is the word-of-mouth effects that are primarily mentioned in all four cases related to using freemium as a marketing tool.

Proposition 3: Strong word-of-mouth effects is vital for success with freemium.

Among the four case companies only Helpstream is inherently social, and therefore expected to have significant network externalities. The company employed a two-sided market, as described in § 3.3.1 (p. 17), with regulars users on one side of the network and businesses on the other side, which provide each other with network benefits. However, Helpstream was not able to obtain sufficient income from the paying side, the businesses. An interesting aspect with regards to the theory, is that the theory only discuss giving the product away for free on one side of the market, not at both. As Rysman (2009) states, pricing is not just dependent on demand and cost on one side, but how one side's participation affects participation and profit on the other side. Thus, lower prices on one side leads to higher prices or more participation on the other side. For Helpstream we see that they were able to attract regular users, having more than 500,000, but these users were not able to attract more businesses on the other side. This demands higher prices, but as Helpstream has noted, they "started out at about half the cost of the low-cost players." They saw this problem, and increased their prices, but were still not able to survive. From this we see the importance of understanding the dynamics of network externalities and two-sided markets, and how it plays out among the company's customers.

6.2 DELIVERING VALUE

Looking at delivering value, we see that all four companies have a strong focus on this. Helpstream was able to deliver its products for $0.05 per user per year, Evernote was at $0.09 per user per month. LogMeIn saw their ability to deliver their product at a very low cost as a key competitive advantage, while MailChimp chose freemium specifically because they saw their platform could handle giving away their product for free to most of their users. As freemium entail giving away potentially most of a product or service for free, delivering this value must be very cheap. Within these costs are amongst others data center operations, customer support operations, hosting feeds, maintenance, and software licenses. From these four companies we can see that delivering their product or service cheaply is a necessity, but not something that will by itself make a company succeed with freemium, as we see from Helpstream.

Proposition 4: As a precondition to choose freemium a company must have a low marginal cost, at least on the free version.

Another aspect of value delivery, is the potential customers to deliver to. With conversion rates in the single or low double digits as we have seen in this paper, most users will be using the free version. Thus, an important metric for freemium based companies is the size of the addressable market. However, to find the total potential for paying customers, it is also essential to consider how many within the addressable market that can be reached, the percentage that registers, and the percentage that converts to premium. Again, we see the importance of continuosly measuring when using freemium.

Proposition 5: Freemium depends on a large addressable market.

For delivering value, an important choice is how the company reaches its customers. This is an aspect that Helpstream had considerable problems with. For them freemium created "polarizing armed camps" within the company. The primary reason for this was that the sales department saw freemium as competition. LogMeIn, the other B2B oriented company among the cases, also has a sales department, but have not had the same problem. However, differently than Helpstream, LogMeIn only used freemium to reach consumers and get them to use their free version. Thus, the sales department, which is primarily used to sell to other businesses, will not see freemium as competition. From this we see the importance of understanding both the potential internal and external problems of choosing freemium.

6.3 CAPTURING VALUE

For capturing value, I expected based on the theory to see discussions among the case companies on pricing, *e.g.* as discussed in § 2.3 (p. 6) and § 3.2.1 (p. 16). However, none of the four have talked much specifically about their pricing with regards to freemium. For all the four, there seems to be a focus on measuring and tracking as much as possible, to have a clear understanding of what prices are deemed necessary to make a profit on those who pay, and of course, how much they are able to get their premium customers to pay. As we have discussed earlier, Varian (1997) states that a fundamental problem for information goods is to set the prices such that those users that are able and willing to pay high prices do so — and for the four companies segmentation seemed more important than pricing in itself. According to Phil Libin, the CEO of Evernote, "the percentage doesn't matter, but the total number that pays matters."

Warfield explains that for Helpstream setting the boundary between free and paid was one of the elements where they failed with freemium, and where he, when he took over as CEO, used their statistics to set limits on the freemium in order to try to get more people over at their premium offerings. Thus, we see that to price the product it is very important to understand the customers and the cost of doing business.

Libin has called freemium "a numbers game." As freemium entail possibly giving away the product or service to most users for free — which we also see in all our four case companies where there are conversion rates in the single digit or low double digit percents — understanding the costs associated with both bringing in users, serving them the product or service, converting them, keeping them in the system, and most importantly their lifetime value, are essential metrics. As freemium include a large amount of users not paying, it is less transparent than a "regular model," where each user pays for him- or herself. As discussed in § 2.4 (p. 7), the quid pro quo in freemium is not about money for the free users, but about using the free users to make money. From this we can propose the following.

Proposition 6: When using freemium it is important to track and measure the costs and revenues from the product or service.

An important lesson that can be learned from tracking and measuring, is when, as discussed in § 3.3 (p. 16), the quality of the free offer is not low enough, and therefore cannibalize the premium offer. In addition this tracking and measuring activity is in line with § 3.1.2 (p. 12), discussing the importance of experimenting with a business model. As Sosna et al. (2010) notes, even incremental changes to a business model can have significant effect of its success. In the same vain, Drew Houston, CEO of Dropbox, another freemium based company, has stated that "It's all about finding things in the margins — lots of little things rather than one key thing" (Gannes 2010).

One of the most discussed elements of freemium in the public sphere, is the conversion rate from free to premium. However, non of the four companies put much focus directly on this number. Evernote discusses conversion rates deeply, but to a larger extent in the context of the degree they are able to keep the users in their system, *i.e.* the retention rate. The key focus for them is their ability to convert the customers that *stay* in the system. Thus, the focus is on the lifetime value of the customer, not the conversion rate per se. We see a similar story from LogMeIn, which don't discuss conversion rates, but rather discusses the average lifetime value of each customer. MailChimp in the same vein talks about how their lifetime value has increased as customer acquisition has become cheaper and more users are converting to their most expensive pricing plan. Having a high conversion rate, but a low retention rate, gives a low customer lifetime value. Based on this, we can propose the following.

Proposition 7: To succeed with freemium, the key metric is customer lifetime value.

Looking at customer segmentation, we see that Helpstream had problems as they were not able to attract "the right kind of customers" for the free version. Thus, they were not able to decrease the cost of customer acquisition and increase the lifetime value of their customers. An vital problem was that Helpstream attracted customers that were not likely to convert from free. For all the three other customers, we see that they were able to attract customers that can be converted to the premium version, and which thus decreased their costs and increased their revenue. Thus, to capture value, it is key to target the right customers with the right product at the right price, which again show the importance of measuring and tracking when using freemium.

One of MailChimp's key activities as en email marketing service is handling abuse. Without automating this process, they have stated that it "would at least have taken 30 human beings," which would have been too expensive to sustain their freemium model. Thus, automation was vital for their success.

Proposition 8: The company must be able to automate the most manually demanding activities related to their free users to succeed with freemium.

Chapter 7

Conclusion

This paper has explored how and why companies have succeeded and failed with freemium. One of the most intriguing findings is the apparent success of some of the case companies, showing that it is possible to create a viable business model based on freemium. This success is, however, predicated on a set of conditions, seven of which are proposed in this paper.

All the companies examined in this paper focus on freemium as a marketing tool. It is, however, not a marketing tool every company can choose, as it affects both how the company creates, delivers, and captures value. As a marketing tool the most important benefit among the cases examined is the word-of-mouth effects the free version bring. However, it is important to ensure that this word-of-mouth attracts the right customers — those that either can be converted to premium or in an other way bring more value than they cost to acquire and serve.

As freemium entails possible giving a product or service away for free to the majority of customers into perpetuity, measuring and tracking is seen as an essential aspect as freemium is more opaque than many other models where each user pays from him- or herself directly. There have been a strong focus in the public sphere on using conversion rates as a measure of success of a freemium based model, but this paper show that the most important metric is the average lifetime value of a customer.

For freemium the paying customers must pay for both themselves and for all the free users of the product or service. As potentially more than 90% of the users are not paying, this demand very low marginal costs and a large addressable market. Otherwise it would respectively either be prohibitively expensive for the premium service, or not enough potential users to get the necessary amount of paying customers.

Seeing freemium through the lens of business models, information goods and free have given us a framework to research the model and get a better understanding of its inner workings. What we have found is that freemium is a potentially very powerful tool, but that it is essential to understand how it works and what it implies for a company before it is chosen. As such, the proposed propositions can be used as criteria for an ex ante analysis of the design of a freemium based business model.

7.1 LIMITATIONS

Some elements concerning the weaknesses of the study need to be noted. First of all this paper is based on an unobtrusive measure, and there is a challenge to obtain enough information about the chosen cases. Lacking data can lead to wrong conclusions from the cases. In addition, as public information is what determine whether or not a case is considered relevant for this paper, a range of companies that otherwise might be interesting with regards to freemium cannot be explored.

Another problem with public information is that it can be tainted for commercial reasons. While exploring cases, far fewer cases were found that talked about a company's struggle with freemium than with their success with it. This was especially problematic when searching for the unsuccessful cases, which were important for this paper.

As the chosen cases often will be selected based on the sharing of a select few in the companies, rationalization might be a problem, *e.g.* an investor rationalizing why an investment was made in a freemium-based company. Related to this is the fact that much available information on freemium is not stated in the context of why and how a company has succeeded or failed with freemium. Thus, the discourse might be misunderstood as it is stated in another context, and can therefore lead to key categories not being identified.

The internal validity of this paper could be increased through triangulation and respondent validation (Webb et al. 2000).

7.2 PRACTICAL IMPLICATIONS

The primary practical implication of this study is a broader understanding of that freemium entails and implies. This paper has proposed a set of propositions that can be used by practitioners in the process of designing a viable business model based on freemium. Based on these propositions a company can get an explicit insight into freemium, which enable decisions based on more than just hunches and anecdotal evidence, as has been mentioned earlier in this paper as a prevailing problem today.

Basing this study in business model theory has proven viable and has given suggestions to a better understanding of what freemium entails, and thereby a better understanding of the term freemium itself.

7.3 THEORETICAL IMPLICATIONS & FUTURE WORK

This study commence a deeper look into freemium itself, an area which is currently not well understood from a theoretical standpoint. As freemium is growing in use among practitioners, understanding it theoretically is important, especially as many companies are having considerable problems with the model. With this paper's exploratory study of a young field an enhanced picture of freemium is provided, and based on this there is a desire for more specific studies to better understand each component of freemium.

Freemium is academically in its infancy, and it is therefore endless possibilities for future research. Based on the most interesting things discovered during the writing of this paper, the following avenues are seen as especially interesting.

7.3.1 *Critical Success Factors*

As this paper looks closer at what is *sufficient* to succeed with freemium, research is needed on what is *necessary*. The concept of Critical Success Factors (CSF) is defined by Boynton and Zmud (1984) as "those few things that must go well to ensure success for [...] an organization. [...] CSFs include issues vital to an organization's current operating activities and to its future success." Thus, we can see CSFs as what a firm must do well to succeed with the implementation (Weill and Vitale 2001) of freemium, and it is therefore seen as a highly interesting avenue of research.

7.3.2 *Behavioral Economics*

Behavioral economics explores the way in which our irrational behavior affects economies (Camerer and Loewenstein 2004), and according to Simon (1997, p. 275) emphasizes "the factual complexities of our world." Key themes of behavioral economics include heuristics, cognitive biases, bounded rationality and market inefficiencies (Simon 1997), all of which are interesting from a freemium perspective. Thus, there are several interesting avenues to look at freemium through the lens of behavioral economics, *e.g.* where to put a boundary between free and premium, pricing, customer segmentation, and conversions from free to premium.

7.3.3 Blue Ocean

Kim and Mauborgne (2004) argue that *Blue Oceans* is about breaking the value/cost trade-off, and that it is possible to pursue both differentiation *and* low cost. Seeing this in relation to freemium is very interesting as freemium entail possible giving away a product or service for free into perpetuity for some users at the same time as there is fierce competition, thus pressuring towards both lower prices and differentiation.

7.3.4 Freemium Economics

Many practitioners are discussing conversion rates (*e.g.* Anderson 2008; Chen 2009; Van Loan 2009; Asay 2009), however, a more systematic discussion on the economics of freemium is needed. This entail a closer look at the lifetime value of customers, conversion rates, customer retention rates, the cost to acquire a customer, and the cost to serve a customer. More insight into these, and other, rates and number can give a better discussion as to how a profitable freemium based company is created.

7.3.5 Pricing & Free versus Paid

This paper got very few insights into the pricing of freemium based products and services. From the theory a much higher focus on this was expected. This is, however, still seen as a very interesting avenue of research. According to Varian (1997) the fundamental problem for information goods is to set the prices such that those users that are able and willing to pay high prices do so. There are several interesting aspects of pricing that should be considered, *e.g.* extremeness aversion and how to set the boundary between the free and paid version of a product or service.

7.3.6 From a strategic point of view

As this discussion have been entirely focused on seeing freemium through the lens of business models, work should be done to understand freemium in relation to other aspects of an organization, such as its strategy. Blue Ocean, as already mentioned, is one such avenue. Other interesting avenues can be the *Balanced Scorecard* (Norton and Kaplan 1992); *Chains*, *Chops*, and *Networks* (Stabell and Fjeldstad 1998); and Five Forces (Porter 1985).

7.3.7 Competition

With regards to competition, both competing *with* freemium and competing *against* freemium are interesting, especially from a practical point of view. Interesting avenues of research can *e.g.* be how — or rather, if — a startup can use freemium to disrupt an incumbent, how to defend against a competitor using freemium, and competing with freemium against another freemium based organization.

7.3.8 Business-to-business

Among the case companies, two focused on business-to-business. However, one of these failed considerable. As this paper propose that large markets are one of the criteria that must be present to succeed with freemium, and as business markets are inherently smaller than consumer markets, freemium need more research in the business-to-business context. An interesting aspect is how a freemium product or service is perceived by buyers as it can be used for free, at least for some organizations. An interesting questions is whether these organizations will perceive a free product as having less quality than a premium-only product or service.

7.3.9 What happens if everyone uses freemium?

The findings in this paper suggests that the most important aspect of freemium is marketing. But what happens if everyone uses freemium? In a world with limited attention, we can assume that word-of-mouth effects will decrease over time, thereby lowering the effect of freemium. We see that one of the examined cases, LogMeIn, already state that they use freemium to fight off new entrants, as they will not be able to disrupt LogMeIn on price. Thus, examining the effects of freemium and its potential future, is of significant practical value.

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