Analysis of an innovative business model: the freemium and its applications

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ACADEMIC YEAR 2015 – 2016
Abstract

This master thesis will investigate the freemium business model, raising on the questions: “Why is the freemium business model innovative and what are its success factors?” The aim is to analyse this business model by confronting theory and practice. Therefore, the document begins with a description discussion of the freemium business model. The literature review concludes by determining the success factors of the business model innovation and of the freemium model. The theory in this first part is then compared to practical examples in the second part. Five different cases of the freemium model are discussed with the help of the tools defined previously. The comparison will be made between the theory and the practice, the common points will be highlighted and the differences will be discussed. The information comes from different interviews with the founder or an employee of the company. Important results are the following: 1) for a successful freemium business model the dividing line between the free and premium product must be clearly established, 2) the freemium business model is disruptive because it forces the competition to also have a free offer, 3) the freemium can be a useful tool to enter the market when the value proposition of the offered product or service is not well understood by the market. These observations are in line with the initial aim of the study, which is to identify what makes the freemium model work. The thesis aim at being helpful in the successful implementation of the freemium model.

Key words: business model innovation – freemium – success factors – disruptive
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Acknowledgements

I will first thank my supervisors. Thanks to Benoit Gailly, my supervisor at the Louvain Management School, for his insight about the subject of innovation. Thanks for his discipline and precise ideas that put me back on the right track. Thanks Miguel Muñoz Duarte, my supervisor at the Nova School of Business and Economics, for his enthusiasm.

Many thanks go to the representatives of the 5 companies studied in this thesis, and who provided me with key insights on how the freemium model could be applied: Thomas Ketchell from HSTRY, Mathieu Vaxelaire from Mention, Valerie Tham from Foodpairing, Jean-Charles Dwelsauver from Koalaboox and Thibaut Claes from Startups.be. An immense thank you for the quick response I got, for the time they agreed to spend answering my questions about the freemium model and for their patience and kindness.

I would like to thank my father with whom I had interesting and intense conversation about this thesis. Thanks also for his logical mind and critical questions that incentivised me to structure this thesis and take my reasoning a step further.

I want to thank my siblings who encouraged me throughout my studies. This thesis is the accomplishment of a long road that has been thrilling and challenging. They were always there, urging me on and looking out for me. Thanks for their advice and encouragements.
Introduction

With the rise of the digital economy, the old way of doing business has undergone sweeping changes. The information and communication technologies have allowed the trade of information under the form of streams of bits to take over much of the market share previously exclusively held by the trade of physical goods which can be viewed as masses of atoms. Hence the saying that the trade of bits is displacing the trade of atoms. All along the history, free has always been an option in trading. But as the marginal cost of bits can approach zero in the digital world, free can become an option for entrepreneurs, managers and CEO’s. This also means that it becomes very hard to be a player in the market if one does not offer free goods.

In this thesis, the freemium business model will be analysed. The objective is to better understand the framework of the freemium, its components, the points on which it is innovative (disruptive) and its success factors.

The research reported in this thesis evolved around these two research questions:

**Q1: What are the success factors of the freemium business model?**

**Q2: Why is the freemium business model disruptive?**

This thesis is written as a recommendation to entrepreneurs interested in the freemium business model. This thesis can help any person interested by the freemium business model to better understand its workings, its success factors and might shed some light on points that may not have received enough consideration so far.
Structure

I will start with a definition of the freemium business model, which is the centre of the research in this paper. The second part contains an attempt to determine the success factors for the freemium business model.

The third part make the comparison between the theory and the practice: 5 different companies are presented as well as their way of applying the freemium model. They will be studied with the tools defined in the first part.

Part 4 will highlight the points in common between the 5 cases studied. This brings to light some facts that could not be derived the comparison between the cases and the literature.

The last part discusses the research questions defined here above. The aim is to make a structured and critical conclusion of the thesis.

Methodology

For the first two parts of this thesis, the aim was to make a synthesis of the literature with the help of the following databases: Sciencedirect, Business Source Premier, SpringerLink, Jstor, Emerald Insight and Google Scholar excluding sources older than 16 years (not before the year 2000).

The 3rd part about practical examples however is based on interviews with established companies but also start-ups using the freemium business model. The interviews were conducted via skype, telephone and face-to-face. A transcript of the interview can be found in appendix
Part 1: Definitions of concerned concepts

The explanation on how free is working as pricing model and why it is widely used is essential for the further understanding of the definition of the freemium business model.

1. The economics of free

Giving a product away for free has been a common practice for a long time and a well-known marketing technique. But the question is: “how can you actually create revenue when you are offering something for free?” Determining the right price has an immense importance in economics and marketing. (Skouras et al., 2005) Setting the price at zero is possible for an economical reason and it is useful for a marketing reason. These two points are detailed in this section.

1.1. Cross-subsidisation

When there is cross-subsidisation of one product by another, this means that what you are enjoying for free, is indirectly paid for (subsidised) by someone (you or someone else) and not always in money but also time.

First a paid product can subsidise a different free or cheap product. A good example is the expensive wine paying for the cheap dinner or the printer sold at low price when the ink cartridge is very expensive. In the same idea, a product can be given away for free and be subsidised by a later payment. This happens when the mobile phone is given away after a telecommunication service contract has been concluded. Eventually, the paying customers will cover the costs of the product that is given away to someone else. This is a basic segmentation of the market between groups of people that have a different willingness to pay for a product and it often works thanks to
network effects. Group of users A is attracted by the free use and group of users B is attracted by the group of users A. Group of user B pays for the opportunity of being put in contact with group of user A. An example is the free entrance for girls to a club. Boy’s willing to enter are paying a fee that subsidises the girls’ entrance. (Chen and Rey, 2015; Belleflamme, 2015)

1.2. A zero marginal cost

According to economic theory, a firm maximises its profit in a market with perfect competition when the price is equal to the marginal cost. (Pindyck & Rubinfeld, 2011, p300) And when the marginal cost approaches zero, the price can follow the same trend which can be the case of digital goods. This could apply to services as well, but the marginal cost of services is more difficult to estimate, so the viability of free services may be difficult to establish.

In Laudon and Laudon (2006) Moore’s law is detailed, stating that the capacity in data processing of a microprocessor doubles every 18 months and its cost halves every 18 month. One of the consequences of the drop of the cost is that its price will also decrease. On the other hand, the fact that the performance increases every year for a decreasing cost means that at some point, the cost of those machines will be so cheap that they can be ignored in the balance sheet.

The conclusion is that information technology offers each year more for a cost that is continuously decreasing. This means that replicating digital products is possible for free. This is a very important characteristic for the freemium model. (Laudon & Laudon, 2006 p120-121; Anderson, 2009)
1.3. Some behavioural economics: the power of free

Free has a huge power on consumer behaviour as examined by Shampanier et al. (2007) in their paper. It seems that when the consumer comes across a free product, this is not only perceived as no cost but the benefits of the product also increase. In the paper, they establish that when a product is free, the demand for this product will increase massively, sometimes at the expense of the demand for the similar but charged product. This is very important to understand that a free product will induce a huge user base.

The mental transaction cost drives the decision that a buyer makes when confronted to a price. Klemperer (1992) defines a transaction cost among others as non-physical cost such as the opportunity cost of the time that is needed to take a decision. Is this price worth the value that I give to the benefits that the consumption of this product will give me? When the price is zero, we do not have to undergo this decision-making process because we do not care about the quality-price relationship, since the price is zero. Free speeds up the decision making, increasing the number of people that will use the product and offer the possibility of a mass sampling. The result of absence of transaction cost is called the penny gap. When a product is free, the demand for this product will increase massively, sometimes at the expense of the demand for the similar but charged product. The difference in demand is the penny gap. This is very important to understand that a free product will induce a huge user base. (Anderson, 2009; Shampanier et al., 2007)

A final note about the free offers: there is a lack of commitment towards everything that is offered for free. Anderson gives the example of bus tickets that were given away by charities. Those tickets, were costing about $30 to the charity and frequently got lost. When the charity decided to sell the tickets for the symbolic amount of $1, the tickets got lost less often. This example shows
the trade-off between free and paid. Free maximizes the reach you have but also diminishes the commitment people will have towards the product. (Anderson, 2009)

2. The freemium business model

2.1. Definition

One of the first times the word freemium was mentioned, it was by Fred Wilson, venture capitalist and blogger in 2006. He describes his “favourite business model” as follows:

“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.”

Freemium is a word built from the contraction of the words “free” and “premium”. According to Peter Froberg freemium “describes a business model in which you give a core product away for free to a large group of users and sell premium products to a smaller fraction of this user base.” At first, the company gives a basic product away for free and acquires a lot of users thanks to the attraction of the free product, the word-of-mouth and other effective marketing techniques. In parallel, the company sells a value-added, more complex premium product that is generally an improved version of the free product. This premium product typically attracts a smaller user base to which this product is sold. This premium product might have exactly the same features as the
free product but without advertising. If a user does not want to upgrade to the premium product, he can quite easily use the free product endlessly.

The freemium model often works with subscriptions. Users have to register in order to access the free product. This enables the company to track the behaviour of its users and data about the user behaviour is very important asset for a well-functioning freemium model. (Berger et al., 2015)

Famous examples are the following. Skype provides free calling with internet but sells premium products such as conference calls, voicemail etc. Everyone can enjoy basic cloud storage of 2 GB with Dropbox. The company sells bigger storages of 20 GB to private customers or companies. Newspapers give a free access to very basic articles, reserving more complex or older articles for fee-paying users. The gaming industry is a very keen on the freemium business model. Playing online is free while the player is given the option to buy (for actual money) additional lives, weapons, square metres of land, etc.

The freemium business model shows its advantages when a user lacks the budget in order to afford the product or when the user does not believe that the price of the product equals its value. The freemium business model can bring value to those two types of customers. The main source of revenue comes from the sales of premium functionality. But in general, freemium draws revenue from an additional source: advertising sales. (Seufert, 2014)

2.2. Different forms of freemium

There are different possibilities for applying the freemium business model.
2.2.1. Quantity limited freemium model

Sometimes the group of persons to which the product is available for free is restricted: either it is the number of people using the product, or it is the type of customer. It can happen that a product in presale stage is given away for free but only in a small quantity. Alternatively, it can happen that only a small amount of consumers is selected to receive the product for free. This latest is the case with the Microsoft’s BizSpark where companies that are younger than three years old and earn less than an annual revenue of $1 million can enjoy a package of business software for free. (Pujol, 2010)

2.2.2. Feature limited freemium model

In this model, you offer a free basic version of a product and you sell a more sophisticated version. The aim is to make people want to use the premium version by trying the free one. The plus point is that when the users convert, they really understand the value of the premium product and therefore are more loyal and engaged. A good example is Yahoo that offers a basic mail service for free, but sells the premium service Mail plus that has superior features to companies. (Pujol, 2010; Niculescu & Wu, 2012)

2.3. The difference between freemium and free trial

There is one last type of freemium often included by researchers which is the time-limited freemium. In this type of freemium, the user has a limited time period where he can use the product for free. The user has to pay if he wants to continue using the product. The advantage is that it is easy to put in place. A good example is the 60-days free trial of Microsoft Office 2010.
According to Peter Froberg, it is misconception to think that the freemium is part of a free trial strategy. According to Fred Wilson, it is important to:

“Make sure that whatever the customer gets day one for free, they are always going to get for free. Nothing is more irritating to a potential customer than a “bait and switch” or a retrade of the value proposition”

The other reason why free trials should not be considered is the definition of Peter Froberg. He emphasises the fact that a freemium business model offers two products at the same time. The user can start with the basic product and decide whether to upgrade or not. And if not, he/she can use the basic product infinitely, unlike the free trial where the consumer can only use the product for a certain period. This is why free trial is a marketing method used for encouraging people to adopt and engage with the product and it is not a business model. In a further part, the topic of free trials will be handled. (See p. 32)

Netflix, for instance, is not a freemium. The company offers you the chance to try the product for one month for free, but afterwards, you need to pay. This is called a free trial or product trial. Microsoft also offers a free trial of its office 2010. This marketing technique is often used to engage people with experience goods. (Cheng et al., 2010)

However, it is possible that a company with the freemium model offers its premium version for free during a month in order to let the user try it.

Skype, Dropbox, Ted talks and online gaming have several characteristics in common such as the revenue model, the structure of the value proposition or sometimes the channels. The important characteristics of a freemium model are discussed in of the following part.
Part 2: Main components and success factors of the freemium model

According to Trimi et al. (2012) it is useful to examine the freemium business model with the help of the business model canvas from Osterwalder and Pigneur (2010). Their aim was to elaborate a concept of business model that is easy to understand for everybody in order to make sure that even non-business people could talk together about the same complex topic. The canvas helps to represent the complexity of the workings of an organisation. It decomposes the business model in nine different parts, each of them representing a characteristic for the company’s business model. These are: key partners, key activities, key resources, value proposition, customer relationship, customer segments, channels, cost structure, revenue streams. You can find more information about the canvas in appendix.

Figure 1: The Business Model Canvas. Source: Osterwalder and Pigneur
Salient characteristics of the freemium business model are the customer segment, the channels, the value proposition, the cost structure, the revenue model and the customer relationship and these will now be discussed. Those will be discussed now together with the factor of success for a well working freemium business model, identifies in thanks to the literature.

1. Customer segment: potential for scale

The customer segments are the different groups of customers to which the company wants to sell its product or service. In the freemium business model, there are two types of users and therefore two types of customer segments. The biggest user segment is composed of the users enjoying the product for free. They often represent until 95% of the user base. The smallest customer segment is the user base that pays for the product. (Osterwalder & Pigneur, 2010; Suefert, 2009)

A critical success factor for the freemium is the access to a mass market. The aim of the free product is providing a potential for massive scale. When the product is becoming widely known, there is also more space for conversion: the more people interested in the basic product, the more people will be willing to buy the premium product. A mass market will open the possibility for the user base to expand massively. Thanks to the network effects, once the critical mass is reached, the user base will expand even quicker. (Seufert, 2014)

Understanding the user behaviour is one of the important parts in the freemium business model. For this, data is a precious tool from which useful information can be derived. (Seufert, 2014)
3. The channels: a digital world

The more distribution channels available, the wider the expansion of the user base. When the product is digital, there are many different distribution structures that can host the product ranging from the platforms to commercial outlets and stand-alone websites. But this is also true for non-digital products. Distribution and supply must be developed in such a way that they enable the scale of users to grow exponentially so that it reaches the critical mass as easily and fast as possible. A large range of possible channels will favour the growth of the user base and is one of the success factors of the freemium model. (Seufert, 2014)

4. The value proposition: free + premium

According to Osterwalder and Pigneur (2010) the value proposition is the “bundle of products and services that create value for a specific customer segment”. The value proposition for the freemium model is characteristic. The company gives a basic product away for free and sells a premium product that has additional benefits. The free product is given away in order to increase the base of consumers massively in a very short space of time. The aim is to attract a big user base so that a part of it could be tempted to convert to the premium product and generate revenue for the company. It is convenient to elaborate a freemium offer when the good is customisable in its features.

We know that the development of the product is a never ending process. The product is improved thanks to the collecting of data about users’ behaviour. This is why insight is crucial for the freemium model. Optimisation of the freemium offer is a delicate process that will help the model to bloom. However the changes have to be correctly balanced and implemented step by step. We
understand that the development of the freemium offer is tricky. If the basic offer is too sophisticated, no-one would find it interesting to buy the premium version and the company will make no revenue. On the other hand, if the basic offer is not attractive enough, the critical mass will never been reached and there will be no scope for monetisation. A company that wants to apply the freemium business model should be aware that there is a need in finding the balance between the attractiveness of the basic offer and the profitability of the premium version. The latter has to be designed in such a way that it gives to the user enough incentive to upgrade. The customer has to be willing to pay the price to upgrade for the premium version. (Seufert, 2014)

In addition, when deciding to start with the freemium business model, one has to be aware that the free product will cannibalise the paid product to a certain extent. The positive network effects of the free product will be offset to a certain extent through the cannibalisation of the paid product by the free product. This is one more reason why the free and premium product have to be correctly balanced. (Osterwalder & Pigneur, 2010)

Most freemium products are digital products or services. The question is whether the freemium model is moving towards more physical products or not? This topic will be discussed in a later part of the thesis, when thinking about further studies of the freemium business model.

5. The revenue model: monetisation

The revenue stream describes how the company will actually capture value from each customer segment. The question of course is: “how can you generate revenues when you systematically give products way?” (Osterwalder & Pigneur, 2010)
Monetisation takes place when a user decides to access the product under the paid conditions. There are several conditions required for this. First, the interest of the user must be such that he perceives the value of the product higher than the product’s cost. The user must also have the budget to afford the product. For a freemium business model to work, monetisation is an essential condition. The rule of the thumb is that approximately 5% of the user base will monetise. This means that one expects that no more than 5% of the users will go for the paid offer. Of course, the wider the user base, the larger the amount of monetising users, the more the product will generate revenues. This is the effect of subsidisation. The monetary contribution of paying users will compensate for the free use of the biggest share of the user base. Additional revenues are profit. (Seufert, 2014; Anderson, 2009)

The freemium model sometimes also gets revenues from advertisement space and the selling of customer data. (Seufert, 2014)

6. The cost structure: a zero marginal cost

The cost structure includes all the expenses necessary for a company to deliver value to the customer. The freemium business model and other business models based on free are often possible because of the same reason: the marginal costs of the product are approaching zero. Products can by consequence be replicated at no marginal cost. Companies lacking this characteristic and still start up a freemium business model face huge difficulties managing their costs. Often they decide to transit to a free trial or to abolish the free offer completely. (Seufert, 2014; Kumar, 2014; Osterwalder & Pigneur, 2010)
Nevertheless, there are some additional costs that have to be taken into account in order to build a sustainable cost structure. First, there are customer acquisition costs. These include the marketing efforts that the company has to make in a competitive market. Besides, there are serious development costs to take into account. In addition, the company must take system costs into account which are costs linked to the development and running of the platform used as channel for the company to deliver its product. (Seufert, 2014; Osterwalder & Pigneur, 2010)

7. The customer relationship: the user community and network effects

The customer relationship is the way a company tries to retain the consumer. Some freemium based companies design an offer that locks in the consumer by using switching costs. Other companies rely on the creation of a community in order to enhance network effects. This community will gain in importance when the user base increases which in turn, fosters the network effects. It is important for users to engage with the product so that they become evangelists and work at convincing by word-of-mouth and consumer-to-consumer referral programmes other users to subscribe. (Lee et al., 2015; Kumar, 2014; Seufert, 2014)

In this section, different important points of the freemium model were detailed, with inspiration drawn from the business model canvas of Osterwalder and Pigneur (2010). These points were detailed and the success factors for each point was determined. In the following chart, you can see the relationship between the analysis according to the business model canvas (first column), the characteristics of the freemium model according to the literature (second column) and the success factors for a well-functioning freemium model linked to those characteristics (third column).
<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Literature review</th>
<th>Success factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>5% use premium</td>
<td>95% use free</td>
<td>Potential for scale &amp; critical mass</td>
</tr>
<tr>
<td>Channels</td>
<td>Various (digital) channels</td>
<td>A large possibility of channels</td>
</tr>
<tr>
<td>Value proposition</td>
<td>A free basic offer and a premium fee-based offer</td>
<td>Customisable offer according to its features &amp; clear product differentiation</td>
</tr>
<tr>
<td>Revenue model</td>
<td>Revenue from the premium and sometimes from advertising</td>
<td>Cross-subsidisation</td>
</tr>
<tr>
<td>Cost structure</td>
<td>Small or zero marginal cost</td>
<td>Small or zero marginal cost</td>
</tr>
<tr>
<td>Network effects</td>
<td>Creation of a community &amp; evangelists</td>
<td>Strong network effects</td>
</tr>
</tbody>
</table>

When we look closely at the different success factors, we can easily relate them to each other to create a virtuous cycle that influences the freemium model. A large user base will lead to a better insight in the user base and will give more accurate information about the behaviour of the users. This will help the organisation to adjust the features of the free and premium product. This will favour the right proportion of free and premium users so that the cross-subsidisation works well and that the freemium model works successfully. And a successful freemium model will lead to an even larger user base. This whole can form a virtuous cycle shown on the diagram here below.

This section of the paper about the success factors of the freemium is very important and will be one of the references to address the research questions in a further part. Also the two figures (figure 2 and 3) will be reused later on.
Figure 3: The virtuous cycle for a successful freemium business model

- Insight in the userbase
- A balance in the features for the free and premium model
- The right proportion between paying and non-paying users
- The perfect cross-subsidisation of the non-paying user by the paying user
- A successful freemium business model
- Large userbase
Part 3: Case studies

1. Different application of the freemium business model

In the previous sections of this document, the freemium business model has been studied, along with explanation of why this one was innovative. The theory explained will now be confronted with five real cases. The discussion will be based on interviews with employees and founders of companies that choose to apply the freemium model, which they all have done in a different way. The aim is to discuss the success factors of the freemium model and distinguish why the freemium business model is disruptive. The interview guide is available in the appendix as well as the transcription of the different interviews.

1.1. HSTRY

Interview with Thomas Ketchell (TK)\textsuperscript{1}, founder at HSTRY

1.1.1. General information about the company

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<tr>
<td>Age of the company</td>
<td>3</td>
</tr>
<tr>
<td>Number of employees</td>
<td>5</td>
</tr>
<tr>
<td>Industry</td>
<td>E-learning, educational technology – B2C</td>
</tr>
<tr>
<td>International presence</td>
<td>136 countries</td>
</tr>
<tr>
<td>User base</td>
<td>255 000 users</td>
</tr>
</tbody>
</table>

\textsuperscript{1} At the beginning of each section below, the name of the interviewed person will be mentioned and his/her initials are used in the text to refer to that person.
1.1.2. Short description of the company

HSTRY is a complementary tool for learning history in an interactive and collaborative way. Its goal is to bring alive history characters, events and trends in order to tell a story; to tell a part of the history. HSTRY enables teachers, student and historians to create, explore timelines in an interactive and collaborative way. The aim is to engage the students with the material by using a fun and playful approach. Text, pictures, videos and other interactive tools compose timelines that can be created and shared among students or teachers. They can share their timelines with other teachers or require timelines from students as a sort of exam.

HSTRY has been the consequence of a revolution in how history is taught. The founders believe that history as it is taught now is still “stuck in the dark ages”. The way it is brought to children today is outdated. The start-up was founded in April 2013. Three years after its creation, the company counts more than 250 000 users in 136 different countries. Since HSTRY is a tool for engaging students with the material, the app is not only used for history but also for subjects such as chemistry and physics. These teaching communities also like the collaborative approach supported by HSTRY.

HSTRY does not position it-self as a substitute but rather as a complementary tool to the classic school lessons. For pursuing their entry in the market, they position them-selves rather as a nice-to-have rather than a must-have service, even if later on, they want to become a necessary tool. The industry in which they operate is called ed-tech, or educational technologies. This is the learning and study process by using and managing technological tools.
1.1.3. Their way of applying the freemium business model

Of all the companies’ studied, HSTRY is probably the one that has the most in common with the freemium model. It is constructed as a platform. Obviously, HSTRY has a freemium offer but in addition, provides other services to B2B clients.

HSTRY applies the freemium in a classic way. The core product remains the interactive timeline. But the features of the timelines are different depending on whether the offer is a basic and free or premium and billed. The basic offer can only create 200 timelines, whereas the premium version offers an unlimited number of timelines. Users have the possibility to share the timelines via Facebook, Twitter and Google with their colleagues or with the community. Their aim is to use as much timelines as possible in history, geography, physics, biology, etc. classes.

Before starting with the freemium business model, HSTRY tried the fully paid version. They were selling units including 10 timelines with 10 lesson plans. But it didn’t work out: teachers were reluctant to buy this content. The reason is that teachers now find most of the content needed for free online. Rather than paying for HSTRY’s timelines, they preferred to use other free content. This is the reason why HSTRY converted to a freemium, even though they have been told that the freemium model doesn’t work in the e-learning industry. According to TK, there has always been this gap between teachers and technology. This explains why HSTRY is so innovative: teachers will still often prefer books over a digital tool. But the founders of HSTRY believe that more and more teachers receive a budget for buying online content. TK admits that they are still looking for the right pricing structure.

Today, the proportion of premium users is around 1.2% of the user base. They expect this number to rise to 3% of the user base and expect the user base to double by next year. Until now, the
founders of HSTRY are very happy that the growth they experience is purely organic. Teachers share their timelines with their colleagues and this makes the user base grow impressively. They don’t need to allocate money to expensive customer acquisition because the growth is smooth and regular.

It is important to note that the premium service is not the only source of revenue for HSTRY. They have several B2B partnerships that are very important to them. Their famous timeline is not only used in classrooms but also in newspapers, museums, websites etc. Apart from bringing in extra revenues, those partnerships increase their visibility in the industry. The freemium service now accounts for 75% of the total revenue. According to TK, this is going to decline in the future to only 25% because of the numerous partnerships they are concluding.

One of their biggest competitors is Nearpod.com who also use the freemium business model. The big difference with HSTRY is that they don’t have those interactive timelines, which are so characteristic of HSTRY. Those timelines could be the innovation that will probably revolutionise the industry.
1.2. Startups.be

Interview with Thibaut Cleas (TC), employee at startups.be

1.2.1. General information about the company

<table>
<thead>
<tr>
<th>Age of the company</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>10</td>
</tr>
<tr>
<td>Industry</td>
<td>Servicing – B2B</td>
</tr>
<tr>
<td>International presence</td>
<td>Belgium and Europe</td>
</tr>
<tr>
<td>User base</td>
<td>250 000</td>
</tr>
</tbody>
</table>

1.2.2. Short description of the company

Belgium has an established tradition of offering various forms of support to start-up initiatives. Startups.be is a Belgian non-profit organisation with a mission to promote and push Belgian tech start-ups to be successful in a global horizon, by offering them a quality access to a range of services, business partners, customers and investors. Their goal is to be the meeting point between different start-ups supports such as coaches, mentors, incubators, accelerators, experts, etc. in order to create synergies between those different organisations. They aim at helping start-ups to identify all the opportunities available to Belgian entrepreneurs. In addition, they want to attract as many small and medium-sized enterprises (SME’s) as possible in order to build a huge Belgian start-up network for creating opportunities and synergies between Belgian start-ups. Their services range from attendance of in-house lectures to the opportunity of attending international fairs where start-ups can promote their business. They also provide services to corporates like banks and insurance companies.
1.2.3. Their way of applying the freemium business model

On their website, you can see that Startups.be launched three different community support packs for Belgian tech start-ups. Those programmes include different services such as the right to attend events in Belgium and abroad, the advice of experts, the receipt of a newsletter etc. One of those is available for free. This makes a lot of sense for start-ups that often do not have a huge budget but most of all are used to enjoy services for free thanks to their start-up status. Startups.be felt they did not have a lot of choice but to align with the common practice of the industry and introduce a free offer in order to attract SMEs and start-ups.

In the very beginning, everything was available for free at Startups.be. Even attending fairs abroad was offered at no costs and entirely subsidised by their sponsors. The problem with the entirely free offer was the commitment of the start-ups towards the engagement they took of being present to the fair. Like we saw it previously, when you get something for free, there is a lack of commitment from the consumer. In the case of Startups.be, they experienced the bad surprise that start-ups enrolled for the attendance to the fairs and cancelling the night before, possibly because they were not interested anymore. Startups.be now charges attendance to formal events in order to increase the commitment of the companies towards their participation. Besides this, Startups.be offers education for free. With education, trainings are meant that Startups.be organises lectures about subjects linked to the life of SMEs and start-ups, as various as the fund rising or how to internationalise your start-up.

Also the services offered to corporates works with a freemium dynamic. Startups.be offers some services for free such as information, but when the service is more elaborated, they will ask to pay.
Companies often request Startups.be to find a SME that is able to help them in solving a specific problem.

TC, employee at Startups.be, also raised the problem of where to draw the line between the free and premium offer. They try to have two offers that are as distinct as possible, but since their market is quite segmented, it is not easy. Startups.be wants to attract as many SMEs as possible in order to build a community that can encourage other start-ups to join.

Even if there is no direct competition, rivalry is present. TC explained that all organisms active in the same industry as Startups.be like start-up accelerators and incubators are sponsored by the same (public) organisations as is Startups.be. They are all eating from the same pie and that latter does not grow. If your share is growing or decreasing this means that the part of someone else is respectively decreasing or growing.

Since Startups.be is a non-profit organisation, their revenues are a bit different than the other organisations studied in this master thesis. They have two main types of resources. They have private sponsors interested in the start-up environment. Besides this, they have regional governments and the European Commission that allocates them money. The revenues from the premium product seems to be quite symbolic but is needed in order to engage the start-ups that enrol in the programmes organised by Startups.be. Note that even if Startups.be is mostly sponsored by external actors, it is not a multi-sided platform: there is no presence of network effects between the different groups. Sponsors are not attracted by the increasing presence of the start-ups.
The organisation has a database of approximately 1500 start-ups. Among them, 700 are invited to go on fairs abroad with Startups.be. Eventually, only 70 are going. This means premium users represent 4% of the user base.

Whereas other companies don’t have any interest using free, Startups.be could survive without revenues from the sales of the premium product to start-ups. The biggest competitive advantage of Startups.be is the fact that they are active on a national base with as following a bigger impact when they are active on an international base.

1.3. Mention

Interview with Mathieu Vaxelaire (MV), founder at Mention

1.3.1. General information about the company

<table>
<thead>
<tr>
<th>Age of the company</th>
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</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>17 employees</td>
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<tr>
<td>Industry</td>
<td>Media mentoring – B2B</td>
</tr>
<tr>
<td>International presence</td>
<td>125 countries</td>
</tr>
<tr>
<td>User base</td>
<td>500 000 companies</td>
</tr>
</tbody>
</table>

1.3.2. Short description of the company

Mention provides a software tool to companies for monitoring what has been said about them in the media. They analyse over 1 billion sources every day and cover an impressive number of sources as diverse as the web, forums, social media and blogs in more than 40 languages. The goal for the customer is to identify the influencers that have the biggest impact on their company, to manage brand reputation and build a brand community, to monitor the international expansions of
the company. With this tool, you can also follow the competitors online as well as what is being said about them. The company has been founded 3 years ago by e-Founders, a start-up studio. Mention is not built on the freemium model. The reason why it is still included in the study of this paper is because they previously had a freemium offer. It is interesting to understand why they first choose for the freemium and in a second time moved away from the freemium model for at the end only include a free trial.

1.3.3. **Their way of applying the freemium business model**

Mention is not a freemium but works with a free trial. They don’t have a free continuous version of their product but offer to the user to try their product during 14 days. However the case of Mention is interesting because of their story. Form a talk with one of the founders, he explained that Mention used to have a pure freemium business model. The premium product was initially the only revenue source for the company. What is really interesting is the reason why they switched over to the free trial. When they were using the freemium business model, 99% of the users were non-paying users. They also noticed that big companies were more and more interested by the digital products provided by Mention. There was a cash flow potential that was not exploited. This is the reason why Mention decided to change its positioning. Whereas before, their target was the prosumer, the guy next door, they decided to change their positioning and target B2B companies with an established budget. The free trial of 14 days consists in the try of all the possible features of Mention. If after 14 days, the consumer is convinced, he registers for keeping the use of the offer and starts to pay. There are different versions of the digital product, making the offer very alike to the freemium offer. All the versions are different in the number of users able to use the
platform, the numbers of alerts, the number of mentions, etc. The source of revenues of the start-up is composed only of the digital product: the monitoring programme mention.

One of their biggest competitors used to be Google Alert, but with the repositioning they underwent, this is no longer the case. According to MV one of the founders, whereas everyone was at Google Alert previously, the entry of Mention on the market rushed the competition. Now, there are a range of different monitoring programmes available on the market. According to the founder, the model of Mention inspired a range of other companies such as Mediatoolkit that also uses the free trial.

1.4. Foodpairing

Interview with Valerie Tham (VT), employee at Foodpairing

1.4.1. General information about the company

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>13 employees</td>
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<tr>
<td>Industry</td>
<td>Food tech industry – B2C</td>
</tr>
<tr>
<td>International presence</td>
<td>125 countries</td>
</tr>
<tr>
<td>User base</td>
<td>110 000 users with 50 000 visitors/month</td>
</tr>
</tbody>
</table>

1.4.2. Short description of the company

Foodpairing defines itself as a “creative food tech company” and VT states that they are active in the food tech industry. Foodpairing wants to be the reference for the creation of unique and customisable recipes. The creation of the recipes is based on an algorithm that combines
ingredients based on their flavour. This is done thanks to an immense database that order ingredients according to their flavour and taste. With this algorithm, Foodpairing is able to provide surprising matches of ingredients that inspire chefs, barmen, chocolatiers and pastry chefs for new recipe. This data base is the ground of all their services and their biggest asset. All their products and services are based on it. However, building this data base by analysing very different ingredients is very costly. The company is active in B2C but also B2B as we will see it further down. The staff of the company is composed of chefs, scientists, data analysts, business developers.

1.4.3. Their way of applying the freemium business model

First of all, we have to mind that Foodpairing has the structure of a platform. The company provides different services and one is the freemium offer. This means that the revenue streams of Foodpairing are diverse.

Foodpairing has four different versions of its service with different features that forms the freemium offer. The versions differ in the number of pairings that are documented and in the ingredients taken into consideration. One of them is free and is aimed at a general public that enjoys cooking. The costed versions of the service are aimed food professionals like chefs and barmen.

Besides their freemium offer, they also offer other types of services. For instance, they sell product visibility to food and beverage companies. Those companies can ask to Foodpairing to pair and use their product in the recipes created by the company. Foodpairing also license the pairing software to (food and beverage) companies. A good example is the smoothie maker of Alpro Soja.
As last, they also elaborated an “educational package” intended for cooking schools. The goal of this package is to help students to think out of the box in order for them to create innovative dishes. All those services are presented on their website.

Foodpairing has also a very important B2B service. Big food and beverage companies ask for advice about flavour matching for their product development. Even more, Foodpairing provides to these companies a market insight about the possibilities and opportunities for the new product. Not only they prove scientifically that the product will be successful, but they also provide the evidence that it will work marketwise. This can be seen as a consultancy service to food and beverage companies.

When the freemium model of Foodpairing is analysed, there are on average 30% of the users that are using the paid services of Foodpairing.com. This accounts only for 3% of the revenues of the company. The remaining share of the revenues are coming from their food consultancy service, the licensing of their application, etc. The difference between the paid and free accounts is that the paying customer gets information about the trial and error process that is involved in pairing of the flavours. Of course the number of pairing differs: the paid account has the possibility to try much more combinations than the free accounts. The users of the paid account are as various as Michelin chefs, bartenders, or foodies and bloggers with a certain professional link with food. The users of the free accounts are mostly very common people, but also companies, brand managers, interested by what Foodpairing is able to do. Because Foodpairing is such a disruptive concept, the probability that someone will directly go for the paid account is very small. This is one of the reasons of the choice for the freemium model: since the concept is really new and a bit curious, people need to become acquainted with the platform and this can be done via the free offer.
Foodpairing is not doing any advertising. They get known via the media and the word-of-mouth. Since cooking starts to become a trendy topic, they benefit from the wave.

Foodpairing had very diverse competitors, since it is a platform having various businesses in parallel. No one of their competitors has chosen the freemium model.

1.5. **Koalaboox**

Interview with Jean-Charles Dwelsauver (J-CD), founder at Koalaboox

1.5.1. **General information about the company**

<table>
<thead>
<tr>
<th>Age of the company</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>10</td>
</tr>
<tr>
<td>Industry</td>
<td>Invoicing, financing – B2B</td>
</tr>
<tr>
<td>International presence</td>
<td>Only Belgium</td>
</tr>
<tr>
<td>User base</td>
<td>5 000 with 2000 premium users</td>
</tr>
</tbody>
</table>

1.5.2. **Short description of the company**

Koalaboox is an app that helps entrepreneurs to manage their financials easily and offers a simplified access to invoicing. The app gives the entrepreneur an overview of a whole range of numbers such as the revenues, the expenses, how much cash is available, which bills still need to be paid, etc. Besides this, Koalaboox offers a factoring service to his users: they pay the bill that their customers owe them, so that the users of Koalaboox do not need to wait for receiving cash. Eventually Koalaboox manages the payment of the bill directly with the customer of their users. In one click, the user can finance the bill if he satisfies certain criteria. In the end, Koalaboox helps
entrepreneurs to build up their customised invoices and send them to their customer. The app targets mostly user such as small entrepreneurs and self-employed persons that have to do their accountancy by their own. Koalaboox also targets accountants and have a special offer for them. The business is quite local and restricted to the Belgian territory, but the company aims at going abroad as fast as possible. The app is available for computer and mobile devices.

1.5.3. Their way of applying the freemium business model

The financing and the invoicing platform are the two main services offered to the customers by Koalaboox. Their offer is composed of different formulas and one is free. They differ in the amount of invoice the user can send, the number of users of the app most importantly, the access to the financing or not. The free service offers the services of the invoicing platform until 10 clients. The financing requires choosing the premium service. According J-CD, this combination between invoicing and financing seems to be unique. Many companies do either only the financing, or the invoicing platform.

As J-CD explained, they choose the freemium model because it matches the image they want to reflect. Their solution has been designed for helping small SME and self-employed people to succeed in their business. For them it was obvious that those very small companies could enjoy the solution for free. Koalaboox wanted to commit to the fact that the basic functionalities, available for free, would still be usable in an extensive way until 10 clients. Since everything is available for free for starting SMEs, Koalaboox felt that the freemium was the solution that fitted the best the goal of attracting small SMEs and self-employed people.
At the very beginning they tried the free trial but quickly abandoned this idea. They used to offer the freemium like described before, but also had a free trial of all the features during 30 days. It didn’t work because 30 days was not enough for the customer to really discover all the functionalities of the invoicing service and the financing. Some forgot they had an account, others barely used it. At Koalaboox, they understood that it was stupid to close the door to the users after 30 days and decided to abandon the free trial in favour of a pure freemium model.

According to J-CD, the freemium is a like a lure, that entrepreneur have to learn to use in the right way. For this, it is important to understand who will follow this lure: who will be interested to use the free. For companies, there is no direct financial interest to give something away for free. The aim is to acquire customers that do not know Koalaboox and arrive by chance on their website. The freemium is like an open door for this type of users. This is exactly in harmony with the definition of the freemium given in the first part of this paper: acquiring a huge user base of non-paying users by giving something away for free and try to convert this user base to monetisation. J-CD also agreed to say that once they acquired non-paying users, Koalaboox tries as much as possible to convert them by following up with them and sending mails about further features that are included in the premium offer. They have 80% premium users and 20% non-paying users. The proportion of non-paying users is very small. The reason for that is that currently, Koalaboox is not making advertising at all for the free offer, not even with ad-words. In addition, their presence on social networks is very little. The number of sources for customer acquirement seems to be very restricted. This means that the number of people that arrive on their website without knowing them is very small, so the number of conversion is very small. The way they are getting known is via salesperson visiting potential clients on the road promoting the financing tool. The word-of-mouth is very important and a powerful tool for Koalaboox.
The company can count on two different sources of revenues. First, from the premium offer, second, they manage to take a percentage (around 3%) on the financing of invoices. The resources from the factoring activity are important but according to J-CD, the freemium would still work without the factoring activity. It would be another company, probably with another growth rate but the freemium model would still work and be essential for the customer acquisition. J-CD thinks that without the freemium model, they probably would have a very low enrolment rate.

One of the key partners for Koalaboox is the bank, essential for the financing that composes the premium offer. However, J-CD affirms that Koalaboox tries to be as independent as possible from the banking sector. They also collaborate with accountancy offices that prescribe their solution to their clients. This favours the viral growth of the user base. In addition, the probability that the clients enrolling on the platform after the advice of an accountant will monetise, is very high.

The invoicing platform has many competitors all around the world. Some using the freemium model, some not. But Koalaboox differentiates themselves by their unique combination of an invoicing platform and a financing offer.

2. **Comparison with the literature review**

In this section, the aim is to compare the observations from the interviews to the concepts defined in the literature review. More particularly, it will be interesting to compare the important points highlighted in the previous parts and study the real world cases according to those points.
2.1. The customer segment

In the freemium model, there are two types of customers: according to the rule of thumb, the first type represents between 90 and 95% of the user base and enjoys the product for free. The second type represents 5 to 10% of the user base and pays for having access to the premium offer. The observation were quite different. Most of the time, the proportion of the premium users is bigger, which is positive for the company’s revenues, even if it is not enough (see below). Only HSTRY has a proportion of premium users that approaches the theory. Talking about this with TC from Startups.be, he agrees to say that it depends of the features that differentiate the free from the premium offer.

About the scale of the user base and its viral growth, we can say that for instance Foodpairing and HSTRY are the ones that perform the best with respectively 250 thousand and 110 thousand users per year only based on organic growth for both. For having the potential to scale up the user base, it is important to tackle a mass market. This is why there is the feeling that freemium works the best in the case of a B2C or B2B with SME and start-ups. A freemium offer for big B2B companies makes less sense. The aim of the freemium is to attract users with the free offer. In the case of B2B, the customer segment has the resources needed for paying a correct and complete good. In addition, they are often looking for a specialised, even customised product, which is difficult to achieve for a freemium model.

Mention is a nice example of this. They started with the freemium but noticed that many big companies were interested by their business. They understood that they were losing market share with the freemium and therefore decided to abandon it.
2.2. Channel

There are many different structures and platforms that can manage the delivery of the product to the customer. The more the channels are various, the best it will be for the viral growth. From the companies interviewed, they are all offering online services except Startups.be. Since they are all offering digitally-based products, the user is often able to access the product via different supports. They are all have a website but also their own app for mobile platforms. Startups.be is not a classic digital business. They sell services to start-ups, which means that the channel is not digital.

2.3. The value proposition

The freemium offer is composed of a basic value proposition given away for free and a premium fee-based offer with elaborated features. This is the ground criteria for having a freemium and this was also my selection criteria. All of the companies studied have an offer composed of a basic and premium product. In the freemium model, the product offered if often digitally based.

A product that is customisable according to its features, will be convenient to design for a freemium offer. Often, the choice of the company is to offer a certain amount of a service or product. Koalaboox offers the creation of 10 invoices for free and suggest to upgrade to have access to unlimited number of invoices. Two hundred timelines are available for free at HSTRY, while the premium offers gives access to unlimited number of timelines. The offer of Foodpairing is working the same. Big companies are also based on this concept: at Dropbox, the major difference between the Basic free offer and the Pro premium offer is the number of giga-bites storage space that the user can dispose of.
The free product is there for attracting the users. J-CD from Koalaboox also explained that at Koalaboox, they saw the freemium as a wide open door for users. The aim of the free product was to invite people that arrive on their website, enter this open door and try the product. Once people entered this door that led to the free product, it is much easier to convince them to convert to the premium product.

What should be the differences between the free features and the premium features? According to this limit there will be more or less people converting to the premium product. If the free product is perfect for a standard use, the proportion of conversion will be very small. On the other hand, if the free product is not very convenient and the features of the premium offer are clearly superior, then, the proportion of converting users will increase but the risk is that less people will try the free version with as result a small user base.

However, it is interesting to note that Mailchimp, a big company offering mailing services with a freemium model, started by offering a small amount of mails. While the company grew, they offered more and more features and a bigger amount of mails for each the premium and free offer.

2.4. Revenue model

The cross-subsidisation is something that makes the success of many businesses including free. The revenues of the premium product should compensate the costs linked to the non-paying use and additional revenues are profit. Bigger companies are able to apply this model, but smaller companies that are starting their business are facing more difficulties. On one hand they have the revenues from the freemium offer; on the other hand, they often need to count on revenues coming
from diverse services provided to survive. In the companies studied in this thesis, the revenue situation is slightly different from the literature, but cross-subsidisation there is.

Besides their freemium offer, Foopairing has a consultancy service, HSTRY is selling customized timelines to newspapers or museums and Koalaboox gets revenues from the percentage taken on the financing. However, J-CD said the freemium model could work without the revenues from the financing. But Koalaboox is profitable because of the very high proportion of premium users (a very high conversion ratio). The statement that the revenue model is not sustainable for start-ups is correct when the proportion of free users is as expected over 90%.

On the other side, we have young companies. For all of them, the freemium model is at an early stage development. When we look at pillars like Dropbox, Skype and LinkedIn, the pure freemium model seems to be working without the need of extra revenues: the revenues from the premium offer subsidise the free product. The need of the companies studied here to count on additional revenue is probably linked to the fact that all of them still have to find the right balance in the features between the free and the premium product. This can result in a balance between free and premium user and a better cross-subsidisation between both.

2.5. Cost structure

In the traditional freemium model, the marginal costs are close to zero, which enables the organisation to reproduce the product without too many costs and to price the product close to zero. When investigating about this point, it was difficult to have an accurate answer. The marginal cost depends highly from the type of business that the company has. But it came up that in most of the cases; the marginal cost was seldom zero, something that VT from Foodpairing confirmed.
When considering Koalaboox, the marginal cost is also important due to the fact that the financing is something tailored for every SME since they receive the visit of a sale person in order to explain the working of the system.

However, TK explained that, at HSTRY, their costs were very low: around €1,200 per month for a user base of 250,000 users means a cost of less than 0.005 per user.

2.6. **Customer relationship**

The presence of networks effect is very important for the viral growth of the user base. This is the result of the creation and existence of large user community.

In the case of Koalaboox, entrepreneurs are enrolling with the advice of their accountant. In order to favour this, Koalaboox has several partnerships with accountancy offices. J-CD also mentioned that the word-of-mouth works very well and that they don’t need to spend money to customer acquisition. The same can be said about HSTRY: they don’t want to spend the budget to customer acquisition because they have an amazing organic growth rate thanks to the fact that teachers suggest to their students to use the timelines or when teachers share their experience with colleagues of them.

At Startups.be, there is a community effect: the more their user base grows, the more start-ups will be willing to join because of the opportunity to meet other people that are in the same situation as them and facing the same daily challenges.

Here under you can find a summary of the different critical components of the freemium model compared to the composition of the cases of freemium models studied here. The case of Mention
is included for more consistency and the situation detailed here is when they still worked with the freemium model.
<table>
<thead>
<tr>
<th></th>
<th>Literature review</th>
<th>HSTRY</th>
<th>Startups.be</th>
<th>Foodpairing</th>
<th>Koalaboox</th>
<th>Mention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer segment</strong></td>
<td>5% use premium</td>
<td>✔</td>
<td>✕</td>
<td>✕</td>
<td>✕</td>
<td>✕</td>
</tr>
<tr>
<td></td>
<td>95% use free</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Channels</strong></td>
<td>Various (digital) channels</td>
<td>✔</td>
<td>✕</td>
<td>✔</td>
<td>✕</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Value proposition</strong></td>
<td>A free basic offer and a premium fee-based offer</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Revenue model</strong></td>
<td>Revenue from the premium and sometimes from advertising</td>
<td>✕</td>
<td>✕</td>
<td>✕</td>
<td>✕</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Cost structure</strong></td>
<td>Small or zero marginal cost</td>
<td>✔</td>
<td>✕</td>
<td>✕</td>
<td>✕</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Network effects</strong></td>
<td>Creation of a community &amp; evangelists</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

*Figure 4: Overview of the comparison between the literature and the real world cases of the freemium model*

### 3. Conclusion

This part of the thesis was handling the study of 5 real applications of the freemium and analysed them with the help of the tools used in the first part of this paper: the business model canvas. This part is very important for making the link between the theory and the practice and will help to highlight the success factors of the freemium model.
Part 4: Managerial implications

The confrontation of the literature with the real world cases can help to understand better the workings of the freemium model. For this part, critical distance and a panoramic view needs to be taken about the previous parts.

1. Lessons learned

From the companies studied in this thesis, the point can be made that it is often either the market or the value proposition that obliged the company to use the freemium model. This is why this point will be detailed for each of the five companies studied here.

Koalaboox and Startups.be are comparable in the sense that they both are targeting SMEs. Both of them agreed to say that SMEs expect to get the services for free. Since SMEs and start-ups initiate their business often with a small capital, the common practice is to offer the services for free in order to attract those small-capital firms. Koalaboox and Startups.be both felt that if they wanted to have a chance to succeed, they had to offer a free product. In this case, the market incentivised Startups.be and Koalaboox to use the freemium business model.

On the other hand Koalaboox and Startups.be are also different. Startups.be is a non-profit organisation and Koalaboox is a regular profit-based business. Where Startups.be could actually survive without the revenues from the freemium, the story is quite different for Koalaboox. The freemium represents a crucial part of the resources and the firm could actually manage without the revenues from the financing.

At first, Mention wanted to target SME and small companies. For the same reason as indicated here above, they used the freemium model in order to attract the user. After a while they noticed that their product was meeting a lot of success, attracting not only small firms. Corporates and
bigger companies started to be interested. The freemium model was not the right tool anymore to capture the value from the market. They changed their target which also modified the business model. They moved to a free trial to keep the trialability aspect they had with the freemium.

Figure 5: Link between the use of the freemium business model and respectively the value proposition and the market

When we consider the case of HSTRY, we observe that they also face a difficult market. Teachers are reluctant to buy digital content on line. Instead, they will try to find the same content for free elsewhere. This means that like Koalaboox and Startups.be, they feel they have to convert to a free offer in order to attract users. In addition, their product is quite new and the tool is innovative. HSTRY’s timelines are disruptive and people are not used to buy something they don’t know. In addition, teachers don’t have a tremendous budget. HSTRY indeed first tried the fully paid offer
but failed to have success and switched over to the freemium offer. The founders of HSTRY felt that teachers are more and more willing to go digital because schools are more likely to spend money on this type of tools. Eventually, the company selected the freemium model because of the disruptiveness of the product and the characteristics of the market.

Finally, Foodpairing always worked with a freemium offer. VT, employee at Foodpairing, explained that they were conscious that the tool is innovative and that the users would rarely sign up and directly go for a paid offer because it is still a quite innovative application. In this case, it is the product it-self and its disruptiveness that forced the company to choose for the freemium model.

In the figure above, the link between the use of the freemium model and respectively the value proposition (VP in the figure) and the market is illustrated.

2. Recommendations

In many of the companies studied in this thesis, we noticed that often the share in non-paying and paying users differs severely from the literature’s observations. The reason behind is that the repartition in features between the free and the premium offer is made such that more people are more attracted by the paid offer than in usual freemium models. The price of the premium offer can for instance have an effect: if the price of the premium offer is very high, the monetisation rate might be very low. This can lead to the fact that the cross-subsidisation of the free use by the paid use is not working out. A result of this is that there is a need in additional revenues next to the revenues from the freemium model.
The question is how to find the balance between the features composing the free offer and the one composing the premium offer. The answer will be given by observing why the consumer decides to monetise. The observation of the user behaviour will shed light on the reasons that incentivises the user to monetise.

From this observation comes my recommendation: for rectifying a balance in the features between the free and the premium offer, it might be interesting to analyse the user base in order to get information about the user behaviour and determine what gets them to monetise.

We can see how the insight in the user base, the balance in features and the proportion of paying and non-paying users can be related to the cross-subsidisation of the free use by the paid user. They can be put in relation by a virtuous cycle shown here bellow.

Figure 6: The virtuous cycle for a successful freemium business model
Part 5: Conclusions

1. Contribution

In this part the aim is to answer the research questions asked at the beginning of this thesis. This part will make some additional links about the existent material. With the literature and the studied cases, this part will answer the following two research questions.

Q1: What determines the success of the freemium business model?
Q2: Why is the freemium business model disruptive?

1.1 Freemium: a disruptive business model or a business model for disruptive concepts?

In the first part of this work, the definition of an innovative business model is given and the definition of freemium business model is detailed in this context. An innovative business model is disruptive and will change firms’ working environment. In addition, an innovative business model will give a competitive advantage to a company. However often, it was not only the business model that was disruptive but rather the value proposition.

In many case, the freemium model helps start-ups with a disruptive concept to make themselves known and to establish themselves. The case of Foodpairing is a good example. During the talk with the employee, she even mentioned that there were a lot of non-paying users that just used the free version for a while in order to really understand the added value of the product. While Foodpairing induces a new way of creating recipes, HSTRY helps teachers to find a new way to
engage students. My conclusion is that the freemium model is a business model that helps innovative concepts to materialise in innovative companies whose business model is innovative. Those types of companies are indeed likely to disrupt their environment. The observed ones clearly disrupted theirs and the freemium business model has been a key to their success.

On the other hand, Startups.be and Koalaboox are companies that felt that they had to go for a business model including free because it is the norm in the market they are targeting. This means that their competitors’ free-base business model obliged them to also go for free.

1.2 Factor of success of the freemium model

In previous parts, different key points of the freemium business model have been studied. According to these key points, some key success factors have been determined.

The first one is related to the customer segment. It is important that a company willing to apply the freemium model tackles a mass market. The major goal of freemium is to have a large user base, meaning that the target market must have this potential scale.

Secondly, the more distribution channels available, the better. It is often difficult to find various distribution channels for services. It is easier to find them for products and even more for digital goods. The advantage with the latter is that there is the possibility of many different distribution channels, thanks to the easy access to the internet or mobile applications. If the target market is a niche market, the freemium model will hardly work.

Next, the value proposition needs to be balanced. There is a need in a clear differentiation between the free and the premium offer. As said before, the free offer has to be attractive enough to lure a
large user base, but basic enough so that the user wants to upgrade to the premium version. In addition, it is easier when you have a product or service whose features are customisable.

Concerning the financial workings of the freemium business model, we know that the profits from the premium offer will pay for the costs of the free offer. The presence of cross-subsidisation is obvious. How this cross-subsidisation actually happens, is debatable. When referring to the literature, only the revenue from the premium offer assure the survival of the free offer. In reality, revenues from product or services next to the freemium offer can also account for the subsidisation of the free product. For the companies studied in this thesis, it was often the case. Besides the cross-subsidisation, there is another important financial success factor needed: the product must have a zero marginal cost. This will enable the company to replicate the good at no or at very low cost and bear the production for a large number of users at low cost, which is important for expanding the user base.

Lastly, the presence of network effects will be very useful to favour the viral growth. Network effects will result in the creation of a community of users that will become evangelists and via word-of-mouth, convince other future users to register.

2. Limitations to the work

One of the limitations was the availability of the interviewed persons. Since everyone is quite busy with his/her business, the discussions were all relatively short and in this amount of time, it is not easy to tackle the subject of the freemium business model in his details.

The companies mentioned in this thesis are mostly SME or start-ups. Indeed, it was very difficult to talk to any big companies that uses the freemium model. The reason is that it is very difficult to
establish contacts with those companies. Unavoidable consequence is the small sample of companies investigated. Five companies is very little sample from which to make conclusions.

Another limitation is the fact that the companies studied in this thesis are very diverse in nature. This means that when looking at the numbers such as the proportion of free users, we have to be critical. A non-profit organisation does not work the same as a profitable organisation. Not all the companies studied here are delivering a digital good, which is an observation on its own: the freemium model is applied outside the digital business as well.

3. Possible next stages

The width of the research can be increased by to considering the case where the freemium offer is composed of a physical product. We know that it is possible to include free in the context of physical goods. The freemium model appeared because of the movement of the economy towards a digital model where products can be reproduced without costs. The question researchers are starting to ask is whether the freemium model is suitable to for marketing a physical good. The issue here is that this type of good often has a significant marginal cost. But with the progress of science, maybe once day, those will be negligible and we will be able to get a basic tennis racket for free, while we will have to play for have a customized one.
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