HOW TO MAKE THE FREEMIUM SUBSCRIPTION-BASED BUSINESS MODEL SUSTAINABLE IN A LONG-TERM?

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Abstract

Freemium business model is becoming increasingly popular and the market grows incredibly fast, especially in fields of music- and video-streaming and cloud storage. Due to the lack of research, freemium is held back from becoming a valid strategy. Current research is inconclusive about the effects of difference between free and paid version of a service. In addition, previous scholars state the impact of the ability to create customized solutions for users depends on users' usage.

The aim of this research is to find out the way to make freemium subscription-based business model sustainable in a long-term and establish freemium as valid a strategy in subscription B2C markets. Based on the literature review, motivation to subscribe, user conversion and retention are three key points to explore. Multi-method qualitative research has been conducted to develop theories related to these areas. Customer journey and customer value hierarchy frameworks are used to develop theories and conclusions.

Analysis of focus group interview and individual interviews with students in Danish universities demonstrated that the main motivations of upgrading to premium services are functionality and ads removal while the main barriers are low premium fit and the concerns about transparency. The results indicated that bundling and versioning are good ways to apply the lock-in strategy which works well in increasing both conversion and retention rate.

Results show, that companies adopt freemium model should take customer as priority, try their best to create and improve the value of subscription. Different lock-in strategies can help to increase the retention rate in various industries.

KEY WORDS: Freemium Subscription Business Model, User Conversion, User Retention, Lock-in strategy, Switching Costs, Service Orientation, Interaction Orientation, Versioning, Bundling, Streaming Services, Cloud Storage Services

Acknowledgement

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1.Introduction

With the improvement of people's living standards and the change of consumption habits, more and more consumers are willing to pay for content or services through subscription. As a booming field, this market grows incredibly fast. It has grown by over 100% a year and during the period 2011 to 2016, the sales has increased from $57 million to $2.6 billion (Luna, 2018). Netflix, Spotify and Salesforce are only the tip of the iceberg of this innovative business model. The development prospects of this business model are very broad. It turns customers into subscribers and generate recurring revenue (Tzuo, 2018). Among internet start-ups as well as application developers, it has already been the dominant business model and is becoming increasingly attractive and popular (Kumar V. , 2014). In the future, accessing, rather than owning the content is going to be a big trend (Polanka, 2013).

Freemium is a combination of words "free" and "premium" and it describes a business strategy where initial features are provided free of charge with additional features locked behind a fee (Liu, Yoris, & Hoon, 2015). Initially, freemium business model appeared in the software industry (Huang, 2016). In 1980s, software companies like Adobe published software in "light" versions which were free of charge. Users needed a registration key to access all the features (Wagner, Benlian, & Hess, 2014). Online newspaper publishing industry and online video sites used to rely on advertising revenue model, but because of the rise of ad blockers and the decrease of CPM (cost-per-mile) click rates, the "old" model no longer fits the new environment. In order to survive in the increasingly competitive market, companies must find new revenue streams and subscription model becomes a good choice (Chyi, 2005; Brouwer, 2016). Recently, the freemium business model has been popular in lots of areas, such as applications, music services, video service, games and news platforms (Trenz, Huntgeburth, & Veit, 2019).

Subscription business model starts to become popular in recent years, but it has a long history and has been used in a variety of areas (McCarthy, Fader, & Hardie, 2017). In digital economy, there're many instances of subscription. A large amount of main music-streaming and video-streaming service providers adopt this model (Sato, 2019). In addition to that, companies that offer cloud storage services also take this approach. Though a lot of companies

employ a "freemium" plan (users can choose to upgrade or stay for free), there're still some companies use purely subscription model, such as Netflix (Charski, 2015). In this context, we will mainly discuss the freemium subscription-based business model rather than a purely subscription-based solution. Even though there are other industries applying freemium subscription business model, we will focus on following three categories: music-streaming services, video-streaming services and cloud storage services.

Subscription models are those in which the customer agrees to buy something that is delivered repeatedly, physically or digitally, over extended period (Mullins, 2014) for a recurring fee, instead of a one-time payment. Even though some services offer an option to pre-pay for a longer period in advance, the subscription fee would recur at some point. Once the user decides to stop paying the subscription fee, the user loses access to the premium features and returns to the basic set of features available in the free version. In case of some cloud storage services, it may lead to loss of the data stored in the cloud, depending on the service provider.

The extant research about the freemium subscription models is scarce. Most of the research that has been done is regarding the freemium videogames, for example: (Evers, van de Ven, & Weeda, 2015; Koch & Benlian, 2017; Strategic Direction, 2017; Shi, Xia, & Huang, 2015). There are some theoretical foundations that are shared by both subscription and non-subscription based freemium models. The lack of academic work and economic models hold back freemium's acceptance as a legitimate and valid strategy (Yogev, 2012). Using quality adjustments and advertisements as instruments of price discrimination in context of optimality of freemium subscription business model is a problem that needs to be explored in depth (Sato, 2019).

Considerable amount of research has been done on freemium business models from consumer psychology perspective. Consumers with direct prior experience with the product tend to demonstrate stronger connection and spending intention rather than consumers approached through indirect channels (Liu, Yoris, & Hoon, 2015). Cognitions about the premium version influence attitudes toward this premium version positively. These attitudes influence the actual intention to pay for freemium services (Wagner, Benlian, & Hess, 2014). Although users can accumulate product experience with the service at no monetary cost during

free usage, this experience is as valuable and effective in a flexible freemium context as it is in a regular purchase situation (Shi, Xia, & Huang, 2015).

Evolution of internet of things and the internet technologies led to a development of servitization and service innovation in the online environment. Service innovation is defined as re-bundling of diverse resources into novel resources that are beneficial to some actors in a given context (Barrett, Davidson, Prabhu, & Vargo, 2015). Service itself is not considered as a unit of output. Service is a process of doing something for someone (Lusch & Vargo, 2006). Servitization allows a company to sell more than just a product itself. Servitization strategies allow the companies to shift from selling a product to selling an integrated product and service offering (Barrett, Davidson, Prabhu, & Vargo, 2015). This led to a development of terms such as product-as-a-service, software-as-a-service or music-as-a-service. When a product is delivered as a service, the responsibility for and maintenance costs associated with the product or a service remain with the company that can alter the parameters according to the needs of a customer (Porter & Heppelmann, 2015). One of the benefits of freemium subscription models in the digital environment is the intangibility. All of the content provided by these services, whether they provide it directly or indirectly, is provided online. Due to massive availability, cost of data is getting close to zero (Anderson, 2009) . This means that there are practically no physical elements restricting the growth of the product or service (Yogev, 2012). In this case, customers do not pay for the product itself. They instead pay a subscription fee for an offering tailored to their needs with the option to stop the subscription at any time. Importance of such strategies is further supported by (Vargo & Lusch, 2004) saying, that goods are distribution mechanisms for service provision. The importance of the product does not lie within the product itself. What matter is the value this product can bring to the user.

1.1 Research questions

Based on literature review and our primary research about the freemium subscription model, our research questions are following:

Main research question: **How to make the freemium subscription-based business model sustainable in a long-term?**

The first step is to understand the marketplace and customer needs and wants which are fulfilled through marketing offerings and value propositions. Marketing offerings can be products, services, information or experiences (Kotler & Armstrong, 2017). One of the most important motivation to subscribe to the service or product is that customers' needs and wants can only be satisfied with the premium subscription. However, a good balance between free version and premium version is not easy to find. Users have no motivations to upgrade to the premium version when they are almost satisfied with the free one (O'Malley, 2015). In addition, extending the premium product line may have positive impacts on the sales of existing premium product (Gu, Kannan, & Ma, 2018). That is why our first research sub-question is as follows:

Research sub-questions 1: **What are the motivations or incentives for customers to pay the subscription fee in for a freemium subscription service and what are the barriers?**

Due to the nature of the freemium subscription business model, users are never buying a finished product. Every customer has different needs that need to be satisfied or different budget possibilities. Companies are able to customize the value proposition according to the needs of each individual customer. In our research, we will explore how such approach can be used to increase premium conversion rates. That is why the second questions we aim to answer in our research is:

Research sub-question 2: **How can the company use different pricing strategies and different versions of premium service to increase user conversion?**

Successful freemium subscription enterprises grew through innovative products and market development. Offering excellent free products or services should attract plenty of potential paying users (Holm & Günzel-Jensen, 2017). Lots of companies have tried the new business model, but most of them failed. We argue that, one of the keys to success of freemium subscription business model is high user retention. By increasing user retention, companies are able to better plan their spending and service development and subsequently increase the value for their users (Tzuo, 2018). Our next research question is:

Research sub-question 3: **How to increase premium user retention and recurring payments?**

1.2 Scope and Delimitation

In this thesis, we divided the main research question into three latitudes. The first latitude is about the motivations of subscribing. The second is to convert free users to premium ones and the third is related to the premium user retention.

First, we introduce the subscription economy and the history of freemium subscription business model. Chapter 2 and 3 provides the theoretical foundation for the research and background of the services, that we have decided to focus on. In the meanwhile, three main kinds of freemium services are emphasized and the scene for the thesis is set. Chapter 4 explains the methodology adopted and how we design the whole study together with considerations about philosophy of science. In chapter 5, our main findings are listed and processed. Accordingly, we analysed the findings from the perspective of theory in chapter 6. Chapter 6 is the limitation of this research and further research opportunities. Finally, chapter 7 presents our conclusions with theoretical and practical implications in chapter 8 and 9 respectively.

Our research will be focusing on freemium subscription business models. The aim is to explore this business model in a context of consumer markets in digital economy. Throughout this paper, we will mention terms from subscription economy that are not directly related to freemium subscription business model in order to develop a theoretical understanding of this new, innovative business model. We mainly focus on online music- and video-streaming services as well as cloud storage services. Non-freemium subscription services, such as Netflix, are not aim of this research. We are also disregarding freemium services that are not subscription-based. Some theoretical comparisons will still be made to set up a context for our research.

Considering the consumption habits of different generations, the youth and students in Denmark are chosen to be our research sample. A study pointed out that over two thirds of young people choose online streaming as their first option to watch videos (Kim & Mo, 2019). A McKinsey' s report has shown that young adults are the main consumers of new devices and services. Young people are at least 1.5 times more likely to subscribe to services than middle-aged people (McKinsey&Company, 2012; Weijters & Goedertier, 2016). Since most of

students have experience of subscribing some services (Morris & Currie, 2016), we will explore the research questions with the support from these heavy users.

2. Background

Subscription economy in the digital environment is incredibly diverse with new sub-segments of this economy being created constantly. Based on the needs of our research and our research sample, we will focus on music-streaming services, video-streaming services and cloud storage services. Since our research sample contains only students of universities in Copenhagen, we assume, that these are the most used services.

2.1 Freemium subscription services

Freemium subscription services can be split in two different categories based on the needs that they are supposed to satisfy. Hedonic services are serving an entertainment purpose, while utilitarian services have practical use. Hedonic services, in our research, include music (Spotify) and video (YouTube) streaming services and platforms. Regarding utilitarian services, we focus on cloud storage solutions, such as iCloud, DropBox, Google Drive etc. According to a report from BI Intelligence, the category that currently has the most subscriptions is streaming video. The BI researchers estimated that by the end of 2014, subscriptions accounted for 70% of profits for digital video companies while ads only occupied 30% (Charski, 2015). These services, such as Netflix or Hulu, are not freemium subscriptions. Number of premium subscribers in context of freemium subscription services remains low.

Even though the switching costs are decreasing due to easy access to information, companies adopting a freemium subscription model can build their own barriers that would prevent their users to switch. One of the ways is to obtain exclusive rights to certain content. Video-streaming services only open the access of some exclusive or high-quality content to premium users. Different service providers usually have their own unique content, for example, YouTube creates original videos that are only available to premium users. The fans of specific content providers on the platform have no choice (besides illegal access) but to subscribe to the service, if they want to access this content.

The second way is to create a situation, where switching to an alternative, even if it is a superior alternative, is less appealing than staying with the current one (Yogev, 2012). This

is further referred to as a lock-in strategy. We can observe lock-in strategy being used in all three kinds of services. Music-streaming services allow the users to create their own custom playlists. These playlists are exclusive to the specific streaming service and cannot be exported or transferred to another provider. This means, that if the user wants to switch to a different provider (for example from Spotify to Google Play Music), they cannot transfer these playlists to the new provider. Companies are trying hard to increase the psychological costs of switching which in turns decreases the importance of minor price differences or differences in quality of service.

Though cloud storage service providers never give out content but provides infrastructures to users, they apply the lock-in strategy through proprietary nature and the heterogeneity of synchronization protocols. The interoperability among the vendors is so low that customers face high switching cost and are easily trapped by a single provider (Gracia-Tinedoa, et al., 2018). Different virtualization technologies, user interfaces and development environments also lead to the lack of interoperability (Haile & Altmann, 2018). Even when the programming language the same, there are some differences existing in the underpinning platform and the supporting cloud services (Rafique, Walraven, Lagaisse, Tom Desair, & Joosen, 2014).

In the following table 1 we list examples of some of the service providers adopting freemium subscription business model and their competitors. Throughout our research, the commonly mentioned services are Spotify, YouTube, DropBox, Google Drive and iCloud. Results of our research, however, can be generalized beyond the context of these few service providers.

Category	Service	Business model
Music-streaming	Spotify	Freemium
	Deezer	
	Pandora	
	Apple Music	Subscription
	Rhapsody	
Video-Streaming	YouTube	Freemium
	Vimeo	
	Netflix	Subscription

	Hulu	
	Bing Videos	Ad-supported
	Daily Motion	
Cloud storage services	Google Drive	
	iCloud	Freemium
	DropBox	
	OneDrive	

Table 1 - Types of subscription services in digital economy

2.2 Music-streaming service

During the past 15 years, music listeners experience three revolutions. The first revolution is digital files replacing physical carriers and thus became the most popular way of content distribution. Digital music first emerged in 2004. The second change concerns the move from unauthorized and illegal music sharing to authorized and legal. This change is particularly evident among young users. They tend to think music streaming is a legal substitute for piracy. The final one refers to the shift from purchasing music as products or goods to purchasing music as a service (R.K. Sinha, 2008; Borja & Dieringer, 2016; Nag, 2017; Naveed, et al., 2017). Streaming media is the representative of this service. Classified by revenue model, there are two types of the service – advertisement-based free model and subscription-based streaming model (Kim, Nam, & Ryu, 2017). Streaming is popular in music, movies and television industries. Key feature of this service is providing on-demand access to a huge media catalogue through internet protocols (Herbert, Lotz, & Marshall, 2019).

Apart from music streaming services, there are other ways to obtain music, including purchasing CDs, streaming videos, illegal downloads and copying CDs. Video-streaming and music-streaming hold the largest percentage among six ways of accessing music and the former is adopted more frequently. Based on the frequency of the music acquisition modes, users can be divided into four types (all-round users, traditionalists, streamers-downloaders and light users). Among these four kinds of users, steamers-downloaders are the heaviest users of streaming services and has the largest student subgroup as well as the lowest average age. They have the highest percentage of Spotify premium users (Weijters & Goedertier, 2016).

Because of the ubiquitous availability of internet, the market of music-streaming grows rapidly (Gerpott & Meinert, Not just every user of mobile music streaming shares the same

characteristics: A classification analysis of mobile network operator subscribers in Germany Author links open overlay panel, 2019). This trend may stimulate digital music sales and consumption and it may also replace other distribution channels, decreasing physical albums' sales and piracies (Aguiar, 2017; Weijters & Goedertier, 2016).

New monetization strategies, including subscription and advertising model are two important sources of the revenue of music streaming services (Gerpott & Meinert, Not just every user of mobile music streaming shares the same characteristics: A classification analysis of mobile network operator subscribers in Germany, 2019). Music-streaming provides nearly half of the total recorded music revenues, driven by paid millions of users of paid subscription accounts (IFPI, 2019). Nevertheless, some stakeholders have questioned that this model may reduce the total profit of the music industry and some artists questioned the sustainability of it. In fact, streaming model mainly brings positive effects and lead to the increase of revenue in the whole industry (Wlömert & Papies, 2016).

According to IFPI's report, 52% of time spent listening to on-demand music is on video streaming and 47% is on YouTube. Though only 28% is on paid audio streaming, the percentage is bigger than free audio streaming (20%) (IFPI, 2018) which indicates that audiences are willing to pay for audio streaming services. The estimated annual revenue per use of Spotify is over 20 US$ while it's less than 1 US$ for YouTube (IFPI, 2018).

The subscription business model is beneficial to the streaming service providers and subscribers. On one hand, it creates revenues for the provider and allows the provider of streaming service to enjoy economies of scale (Chen, Leon, & Nakayama, 2018). On the other hand, free users can shuffle existing playlists, get access to a huge music database and enjoy the music. Subscribers can play songs with better quality, create their own playlists, download and listen offline without ads (Malecki, et al., 2018; Tzuo, 2018; Sato, 2019). However, users of music-streaming platforms never become owners of songs or albums, like it has been during the era of CD sales. Instead of paying for specific contents, streaming subscribers rent access to database from which they can obtain content without extra fees (Datta, Knox, & Bronnenberg, 2017). Although, music-streaming services may reduce the piracy, it may provide a new way to copy the music. Proficient pirates can transform the streaming resource to piracy

(Borja & Dieringer, 2016). This also suggests that music-streaming service doesn't act as a buffer against piracy. It will continue to exist with the piracy for a long time.

2.3 Video-streaming service

Video-streaming services are very similar to music-streaming in the nature of the business model. When the content of video is about the music, these two services are overlapping. It's a delivery system of multi-media (audio and video) content (London J., 2012).

The development of video-streaming services benefits from the convenience of publishing and sharing videos (Xie, et al., 2013). Video-streaming traffic accounts for 25-40% of the total internet traffic. YouTube and Netflix are two most popular video-streaming sites in North America and the former is also the dominant source of streaming traffic in Europe and South America (Rao, et al., 2011). As mentioned before, users spend more time on video-streaming websites in listening to music rather than get the music from audio platforms (Weijters & Goedertier, 2016; IFPI, 2018; London J., 2012).

YouTube and Netflix have changed the way users are interacting with video content. Users can watch videos on their mobile devices almost everywhere. Streaming became the primary distribution way of videos and the physical copy becomes anachronistic (Proctor, 2018). The traditional media industry is significantly disrupted by subscription video on demand (SVoD) and due to the popularity and convenience of SVoD, digital piracy has been reduced (McKenzie, Crosby, JoeCox, & AlanCollins, 2019). Video-streaming services are described as the best alternatives to cable television (Albanesius, Steele, & Moore, 2019). Customer's video-watching habits changed as video sites multiply. The video viewing time of all ages has increased but young people are watching more video-streaming services instead of ordinary television content (McKinsey&Company, 2012).

Freemium VoD service allows users to choose between free and paid version based on their needs. All users have access to the public free content and only subscribers have the right to access the premium content. By using video-on-demand or video-streaming services, users from different age groups have a variety of purposes, such as entertainment, education, media

(Reddy, Ahmed, ManjulaK, & Venugopal, 2019). The success of video-streaming service depends on what content does it have in the database (Albanesius, Steele, & Moore, 2019).

Since the freemium video streaming services generally work as platforms, network effects are in place. More viewers the platform will attract more users which will post their videos on the platform which will then attract even more viewers and so on. This generate big switching costs, especially on the producer side of the platform. If the content creator would suddenly decide that he/she wants to switch to another platform, they risk a large loss of the audience. Part of the audience would migrate to the new platform as well but the losses in the viewers count would be inevitable. That is why, often, content creators rather stay on one platform, even though they are unhappy with some of the features or decisions the company has made, rather than risk loss of audience.

Companies in the freemium video streaming marketplace have a difficult path to navigate when it comes to figuring out which services they should offer for free and which should be included in the premium package. Recently, some of the video streaming platforms tried to adopt a strategy similar to the one used by music-streaming services. They would offer advertisements removal, ability to listen to the videos in background and other. However, charging for something, that has been previously free does not always work out (Parker, Van Alstyne, & Choudary, 2016). That is why, for example, YouTube has reported, that at the peak of their subscription services, only 1,5 million subscribed in 2016 (Alexander, 2018).

2.4 Cloud Storage services

Cloud computing includes software as a service (SaaS), platform as a service (PaaS) and infrastructure as a service (IaaS) (Aldiabat, Rashid, Talafha, & Karajeh, 2018). IaaS refers to the delivery of computer infrastructure as a service. Service providers owns the infrastructure and end users can make use of that without owning any external physical storage devices. Service providers are responsible for the maintenance of this infrastructure, while users are paying a subscription fee that allows them to access the infrastructure. Cloud storage service can be classified as IaaS.

Nowadays, cloud storage became a trend in the IT market. This service allows people to store large amounts of data and files on a cloud platform provided by a third party. It is critical for organizations and individuals' development (Celesti, Galletta, Fazioa, & Villari, 2019) since it is directly linked to their personal files. The cost of spreading or sharing information is decreased while the efficiency increased. The number of users adopting this service is increasing steeply (Aldiabat, Rashid, Talafha, & Karajeh, 2018).

The cloud storage services provide online, synchronised and virtualized storage which is ultimately consistent across data copies (Semenzin, et al., 2012; Cai, et al., 2018). DropBox, Google Drive, Hightail, OneDrive and SugarSync are five big players in this market while Google Drive is the most popular one (Rao & Reddy, 2016). Public, private and hybrid are three kinds of cloud storage (Alismaili, Li, Shen, & He, 2016) but in this study, we only take individual users into account. Among the five big players, DropBox and Google Drive are especially popular as personal cloud storage services (Rao & Reddy, 2016).

Growing concerns among users of cloud storage service are privacy and data protection. The cloud service providers can sell their users' personal data and content to create revenue (Sánchez-Artigas, Cotes, Rodriguez, & García-Lopez, 2018). Moreover, users are concerned, that their data stored in the cloud could be accessed by hackers and their files could be compromised or stolen.

3. Theoretical foundations

3.1 Business model innovation & subscription business models

Based on the unique characteristics of the internet, e-commerce business models develop rapidly (Laudon & Traver, 2014). Subscription business model is a typical one which is popular in different business areas. Many digital platforms and services have relied on advertising as a revenue stream in their business model. Currently, advertising seems to fail as the sole support of the platform or service. Monetization via subscription is a good alternative or supplement (Clemons, 2009; Rappa, 2010). An online content provider can be seen as a two-sided platform. On one hand, it charges viewers subscription fees. On the other hand, they make profits from advertisers. When more audiences or customers join the platform, advertisers are more willing to cooperate with the platform. But when more advertisements are put on the platform, customers' experience will get worse and some of them may quit the platform (Kumar & Sethi, 2009).

Subscription business models have been created due to changing consumption habits in today's era. Consumers are no longer interested in ownership of the physical good (Tzuo, 2018). They are interested in what value this product can provide to them. This is further supported by marketing scholars stating, that the product or service is just a vessel for value delivery (Vargo & Lusch, 2004; Lusch & Vargo, 2006). This led to a development of business models, where instead of purchasing a finished product, like in the past, customers are paying for access to the service. This business model innovation is beneficial for both customer and the platform. In the previous era of product economy, customers were paying for a finished product. Whether it was a DVD with a movie or a CD with the songs from their favourite artists, exchange was based on a single transaction. If the customer wanted to update the software they have bought, they had to make new purchase and this process was repeated constantly. In the subscription economy, customer do not own the product. They own the access to this product or service. Because companies cannot rely on one-time sales anymore (Tzuo, 2018), they have to constantly increase value by updating the service offering. Subscription model makes the offering of a company both better and cheaper at the same time (Mullins, 2014). Based on the consumption habits on the platform, companies are able to observe trends in the consumer

behaviour (Yogev, 2012) and adopt the value proposition according to these findings. As an example, Netflix is able to see what kind of shows viewers like and adjust the content development according to that. Spotify can see what kind of music the listeners listen to and tailor the recommendations and curated playlist according to these findings, and so on.

Companies using the subscription model are able to better plan their spending throughout the year. In the product-based economy, companies were relying on sales of the individual product and made revenue only after the product has been sold and used. In case of subscription economy, companies generate revenue before the product gets used and consumed (Tzuo, 2018). This allows them to plan their spending throughout the financial period, because they know in advance how big the revenue will be regardless of the actual consumption of the value offering (Anderson, 2009). That is why, for example, companies like Netflix are able to spend 8 billion USD (approximately 52 billion DKK) on original content while charging individual users only 99 DKK (depending on the version) per month regardless of how much they consume (Tzuo, 2018). These companies know in advance how much they are going to make in revenue that year and is able to adjust the content development efforts accordingly.

3.2 Freemium subscription models

In freemium, in the context of subscription model, customers can assess a free layer of content or service with limited functionality and have to pay for the enhanced version (Punj, 2015; Martin, 2012). The premium version usually entails less disturbance, advanced functions, more appealing features and generally increased quality of service (Koch & Benlian, 2017). This business model consists of two components: value creation (free and premium products) and value capture (profit mechanism) (Deubener, Velamuri, & Schneckenberg, 2016). Companies adopting this model usually attract users to register as members, providing them with free services at the beginning and charge heavy users a subscription fee (Horng, et al., 2016; Chyi, 2005). Premium subscribers not only create value for themselves by making use of more content, but also create value for communities and websites by editing more content and adding more friends who are engaged because of the focal user's activities (Bapna, Ramaprasad, & Umyarov, 2018).

Providing product or service for free is not just an operational cost. Free users are not only a good marketing tool, but also a valuable resource (O'Malley, 2015). Offering free samples or opportunities to try the service has always been an important marketing tool to promote the product and increase sales. What's more, digital products are more likely to attract paying users than physical products. Providing the sample properly can improve the expected return of the business (Han & Zhang, 2018). Free users' feedbacks are helpful in improving the usability and features of products. The word-of-mouth effect has also led more customers to try this service or product (Holm & Günzel-Jensen, 2017).

Business model contains eight key elements, which are value proposition, revenue model, market opportunity, competitive environment, competitive advantage, market strategy, organizational development and management team (Laudon & Traver, 2014). Based on the needs of our research and our research questions, we will focus on value proposition and revenue model, because they are two most important elements of a business model.

3.2.1 Value Proposition

Customer value is determined by the price or benefit that a customer prepares to pay for the value proposition (Kilroy & Schneider, 2017). Traditionally, customer value is just the value-in-exchange. Recently, customer value is also seen as value-in-use during the processes of generating customer value (Keranen & Jalkala, 2014). Customer value is important because it reflects the outcome of a service or product (Gummerus, 2013). A firm's job is creating great perceived value for customers and in return customers provide value to the organization through multiple forms of engagement (Landroguez, et al., 2013; Kumar & Reinartz, 2016; Kotler, 2017).

With the continuous advancement of globalization and increasingly fierce commercial competition, corporate attitudes toward customers have become more important. The role of the customer has also changed from a simple consumer to a co-operator, co-producer, co-creator of value and co-developer of knowledge and competencies. Customer value is regarded to be a key factor in finding new ways to create and maintain competitive advantage (Martelo Landroguez, Castro, & Cepeda-Carrion, 2011). Finding a way to create customer value is to define the value proposition for a company (Shanker, 2012). Customer value is often assessed

by comparing what customers receive compared to what they want or expect (Gummerus, 2013).

Customer value hierarchy model can be used to evaluate whether the value propositions satisfy customers. Customer value can be divided into three layers. The first and the bottom layer is the concrete properties and performance of the product. Customers will develop expectations and preferences about the ability of these attributes to achieve desired results. This is the second layer. Customers will also form expectations of ability to achieve their goals based on these results and it's the top layer (Woodruff, 1997).

Value proposition is how a company's products or services intend to meet the customer's needs (Laudon & Traver, 2014). The Internet meets basic human needs of information and social interaction and novel technological affordances (Ji & Fu, 2013). In the digital society, online content has become an integral part of people's daily lives (Xu & Duan, 2018). People can easily access a variety of electronic information anytime, anywhere. Online content has various forms, such as e-books, computer games, music, e-learning, broadcasting and VOD (video on demand) (Joo & Sohn, 2008). Undoubtedly, information has huge value. Timely and effective information can change people's lives. However, the cost of acquiring information is decreasing all the time (Levy, 2010).

Previous scholars have studied the willingness to pay the subscription fee of online news and proved that most of users don't want to pay for online news because there are plenty of substitutes both online and offline, some of them available for free, supported by advertising. In the meanwhile, they don't think the online news has any distinct value or additional value compared to trustworthy public content (Chyi, 2005; Himma-Kadakas & Kõuts, 2015). Unless the content you provide is unique enough, there's always someone willing to provide it freely (Kennerdale, 2001). Furthermore, not all content can attract consumers to subscribe. It needs to be exclusive or at least difficult to get (Charski, 2015).

In general, an obvious difference between the paid version and the free version is that advertisements are removed from the former. Some research however, shows, that the customers do not mind the ads and it seems that they're willing to receive the content for free with the support of ads because they can always ignore them (Punj, 2015). Moreover, by

subscribing to the freemium services, searching cost can be saved and frequent updating is available (Kumar & Sethi, 2009). The value proposition of freemium business model can be described by comparing free and premium version (Deubener, Velamuri, & Schneckenberg, 2016) as shown in table 2:

Limitations of free version	Effect on value proposition
Functionality	Additional services or features in the premium version
Time-limited trial	Some companies offer a full functionality version to new users for free for limited period. After the trial, if customers want to continue using the service or product with premium features, they need to pay
Usage	Some companies limit the usage such as bandwidth, hours, quality of content or storage space of the free version
Advertisements	Advertisers perform as sponsors in free offerings so users can get access to the content for free. In the premium offering, ads are removed.
Combinations	Random combinations of four mechanisms above

Table 2 - Value propositions for premium subscribers (Deubener, Velamuri, & Schneckenberg, 2016)

It's worth noting that the core product which is the online content has its own intrinsic value and can be used by itself, while the additional services (value-added service) such as usage period, ads and increased functionality have no value without the core product (ZHANG, et al., 2016). That is why it is worth exploring which of the features of free/premium versions are valuable to the user and should be capitalized upon.

3.2.2 Revenue Model

Monetizing a website or digital platform is a complicated issue. Companies should consider several questions, before determining the approach to monetization. Monetization strategy describes how a company plans to generate revenue by using pricing strategies and related marketing tools (Docters, Reopel, Sun, & Tanny, 2004). Monetization is a tricky issue for many platforms and services, especially for online content providers adopting a freemium subscription model (Kho, 2016). However, the fear of losing a valuable user base makes it

difficult to switch from free to fee (Kennerdale, 2001). That's why it's difficult for existing platforms or websites to change their business models intro freemium one.

Since business model is a planned activity designed to generate profits from the market (Laudon & Traver, 2014), providing free content should never be the ultimate goal. Revenue model describes how the company plans to generate revenue (Laudon & Traver, 2014). It determines where the revenue comes from, what value the product or service can offer, how to price it and who will pay for it (Afuah, 2004). Freemium business model provides a free version for all user and mainly charges heavy users who are willing to pay for premium services (Horng, et al., 2016; Strategic Direction, 2017). From this perspective, content and advertising becomes the two main revenue streams of the service providers (Lambrecht, et al., 2014). However, content-based revenue account for most of the total profits. The revenue of freemium subscription business model comes from the subscription fee, which is charged daily, monthly or annual. No matter how frequently the users use the product or service, the subscription fee will be charged (Rappa, 2010). A simple logic of the revenue model is to convert free users to paying ones. Companies still struggle with the conversion rates, since the conversion rate is generally around 2 to 5 percent (Holm & Günzel-Jensen, 2017).

Among those questions that need to be answered in the revenue model, the most difficult one is how to price the value. Customers' demand of online content changes a lot so it's difficult to maximize the profit by setting a fixed price. In order to cope with the decline in profits caused by changes in demand and maintain the stability of profits, online content providers sign long-term contracts with consumers (Lambrecht & Misrab, 2017). Subscription can be seen as a long-term contract. Although it's almost impossible to find a price that maximizes profits, it's possible to find an optimal price. Companies have to determine the best content of the free version and the optimal price of the premium version (Chen, Hua, Zhang, & Bi, 2018). For content providers, adopting a paid content strategy and avoiding showing high-quality content through free samples may be the best option (Halbheer, Stahl, Koenigsberg, & Lehmann, 2014). Researchers have examined whether companies offering both free and paid content are able to benefit from adjusting the amount of free content and find that firms should offer more free content in high demand periods (Lambrecht & Misrab, 2017). Previous research also suggests the following to increase free to fee conversion rates (Parker, Van Alstyne, & Choudary, 2016):

(1) Avoid charging for things which customers received for free previously;

(2) Avoid reducing access to content or services consumers have got used to receiving;

(3) Strive to create new value to gain profits;

(4) When design a platform, think about possible monetization strategies at first.

3.3 Pricing strategies

Price refers to the amount of money that charged for a product or service. There are three major pricing strategies – customer value-based pricing, cost-based pricing and competition-based pricing. The value-based pricing sets the price based on perceived value of customers. cost-based pricing sets the price based on the seller's cost and the competition-based pricing sets the price based on competitors' strategies, prices, costs and marketing offerings (Kotler & Armstrong, 2017). Following table indicates the main strengths, weaknesses and overall evaluation of these three strategies:

	Cost-based	**Competition-based**	**Customer value-based**
Definition	Price is determined mainly from data from cost accounting	Usage of anticipated or observed price levels of competition to set the price	The value a product or service delivers is a main determinant of the price.
Examples	Cost-plus pricing, mark-up pricing	Pricing according to average market pricing	Perceived value pricing
Strength	Easy access to data	Easy access to data	Paying attention to customers' perception of value
Weakness	Never considering about competition or customers willingness to pay	Never considering about customers willingness to pay	Difficult access of data Relatively high prices (long-term profitability should be taken into account) Customer value is not a given, but needs to be communicated
Overall evaluation	Weakest	Sub-optimal	Best

Table 3 - Comparison of pricing strategies (Hinterhuber, 2008)

Scholars agree, that a pricing strategy based on customers' willingness to pay is the best and this strategy can usually enhance the pricing power and the performance of the company (Liozu S. M., 2016). Both small and medium-sized companies can improve profitability through this pricing strategy (Liozu & Hinterhuber, 2013). Though most scholars believe that value-based pricing is better than traditional cost-based or competitor-based approaches in industrial markets, few companies adopt it (Liozu S. M., Hinterhuber, Perelli, & Boland, 2012). Value-based pricing strategy can be applied to products which have the potential of being differentiated from competitors. In the meanwhile, the use of value pricing is able to highlight the product or service values (Farres, 2012). Since the producing, reproducing and distributing costs of information goods are relatively low (Bakos & Brynjolfsson, 2000; Anderson, 2009), in order to generate profit, companies are not likely choosing the cost-based pricing. Traditional pricing strategies don't fit the unique cost structure and product characteristics of information goods, so differential pricing strategy is required (Chang & Yuan, 2008).

The shift from purchasing products to the delivery of services and the decrease of variable costs, software vendors' pricing models have shifted from cost-based to value-based pricing (Baur, Genova, Bühler, & Bick, 2014). Value-based pricing is adopted the most and competition-based pricing can be a good supplement. Vendors of information products use windowing, versioning, and bundling strategies to implement the price discrimination and appropriate a greater share of the surplus (Viswanathan & Anandalingam, 2005; Linde, 2009).

Windowing is the process of managing the sequence of publishing online content in order to maximize the return on intellectual property (Doyle, 2016). It represents that the same content is released to different channels at different times so customers feel like the content is scarce and unique and their desire to subscribe increase. Customers have their own taste towards the product. When a group of customers shared some characteristics and each group has mutually exclusive characteristics, versioning is optimal (Wei & Nault, 2013). Since several distribution channels are involved in windowing, we are not going to discuss it in this research. However, version control which we call "versioning" and "bundling" are worthy to introduce.

Version control is optimal when the best market share of the relative lower-quality version provided separately is greater than the best market share of the higher-quality version provided separately (Bhargava & Choudhary, 2008). Bundling a large number of unrelated

information products can generate more profits, and customized bundling outperforms other simpler pricing strategies (Bakos & Brynjolfsson, 1999; Shin-yi Wu, et al., 2008). Another approach to bundling is a situation, when service provider offers a group package for discounted price. This way, the service provider is able to convert several users at the same time for with decreased profit margin per user.

3.3.1 Bundling

Bundling can be understood in two ways. First, bundling of services is a strategy that sells multiple services\service elements at a set price, with a discount (Schilke & Wirtz, 2012; Srinuan, et al., 2014). Second, bundling of customers is a strategy where value proposition is sold to several users at the same time, for discounted price, such as friends and family package (Desai, Purohit, & Zhou, 2018).

First of all, a single service provider can provide a variety of different services to customers. These services are usually closely linked to each other. When all services come from a single provider, the unified system makes users to transfer information from one service to another service (USA Patent No. 09/777,025, 2001). For example, YouTube bundles its music and original products together at the price of 199DKK/month. Users don't need to have two separate accounts for each of the services and their tastes or preferences are linked directly to their account. Different companies can also establish strategic partnership and announce premium bundle which allow users to use services from two companies together. For example, Spotify and Hulu has introduced a premium bundle which give Spotify users the benefit of removing all ads on Hulu for free. The bundle can help user to save 3 dollars per month (Harbison, 2019). Similar strategy is being used by DropBox, which is currently integrated with Microsoft Office Online.

Bundling is a very efficient strategy that has gained a lot of popularity in recent years. One-fifth of Europeans said their family bought at least one communication service in a bundle at the end of 2006 (Srinuan, Srinuan, & Bohlin, 2014). Research shows, that bundles also have lock-in effects for companies in communications sector. Switching costs for customers who subscribed to services with someone else are higher than those for stand-alone users. Group subscribers concern more about lock-in, performance and economic benefits. Bundling

strategy's non-monetary switching costs has strong moderating effect on customer retention (Kim, Park, Lee, & Park, 2018). Users who have been bundled together, to some extent, lose their opportunities to make individual purchase decision or change the provider.

3.3.2 Versioning

The most common way of versioning in context of freemium subscription services is providing free version with ads and the premium version without ads (Kanuri, Mantrala, & Thorson, 2017). Since the cost of producing a new version of service is close to zero, this strategy makes companies meet different customers' needs (Ancarani, 2002).

In subscription economy, it is quite common for companies to sell same products and services to different customers at different price and/or with different features (Tzuo, 2018). This can be called price discrimination. The student version is a typical example of selling the same services at different prices. Spotify is the most common example of student discounts in practice. This, however, is a price versioning where value proposition remains without change. All the features in so-called "student version" are the same as normal premium version.

Online service providers in this case apply the long tail theory – "selling less for more". Using the long-tail framework, companies have several customers that provide most of the revenue while the service is repackaged and sold to smaller customers for the fraction of price (Anderson, The Long Tail, 2006). A large portion of subscription businesses' total revenue comes from a small part of the user base (Voigt & Hinz, 2016). Premium users only accounted for 3-5% of total users (Wagner, Benlian, & Hess, 2014). The basic free tiers include 90-95 percent of free content and 5-10 percent of fee-based content (Huang, 2016). Thus, a small number of customers pay subscription fee to get access to a small amount of premium content.

Versioning is a set of actions that modify digital products and services, including modifications directed to the content (improvement, reduction, correction, etc.) and/or to its technological platform (structure, content representation) and/or its process platform (storage, recovery, processing, presentation) (De Sordi, Reed, Meireles, & da Silveira, 2016). Using this approach, companies create different digital versions of the same digital products and services and sell it to customers at different prices. This strategy is commonly used in the B2B

environment where there is a large need for the service customization. If versioning is used properly, it can lead to higher optimal profits to the platform (Jiménez-Martínez, 2018).

3.4 Customer conversion in freemium business model

Customer conversion refers to the effort the company makes to convert the user to a paying customer. It includes strategies and techniques used by a company to acquire new customers. In the beginning, freemium is not designed to produce direct revenue. Instead, its purpose is to build new customer base (Yogev, 2012). Only then can the company put effort into converting part of this customer base into paying customers. Challenge lies in the conversion of a user from free to premium. The main problem lies in persuading customers to pay anything at all. The difficult part is crossing the gap between a service, that is free and a service that costs any amount of money (even 1 DKK) (Anderson, Free: The future of a radical price, 2009). Service providers are struggling with convincing customer to pay the subscription because it contradicts the established perception about online service (Choi, Lee, & Soriano, 2009). Customers do not own the online content they pay for. They only pay for the right to access this content and this right disappears if the customer decides to stop paying the premium subscription. As mentioned before, despite the rising popularity of freemium model among the companies, only 3-5% of users actually convert to premium (Koch & Benlian, 2017). The 5% of users that decide to pay however, will cover for the 95% that are not paying, and the rest is profit (Wagner, Benlian, & Hess, 2014) or is covered by advertising revenue. While the number of paying users is always going to be just a fraction of the freemium user base, if the company is able to provide excellent service, this core group can support the business (Tzuo, 2018).

3.4.1 Free to premium

Low conversion rates are further attributed to the ease of comparison of different software options and low switching costs between the free versions of these apps. Some companies might be reluctant to freemium model because of many uncertainties it brings. Even though providing software for free might cause a decrease in sales of its paid version, Liu, Yoris, & Hoon (2015) argue that even though the cannibalization of sales might still occur, the competition among the freemium providers is so high, that a developer not offering a free

version of the software might lose customers to the ones that do provide the free versions of their software.

Providing a user with a free version of a service has positive effect on the purchase intention (Liu, Yoris, & Hoon, 2015). Through a free trial, they might develop loyalty and engagement, converting them to paying users, and attract more users through word-of-mouth (Shi, Xia, & Huang, 2015). This is also referred to as a "Free first" strategy (Koch & Benlian, 2017), where users first start as non-paying users, test the premium features during the trial and then decide if they want to convert to premium based on their experience, or go back to being a free user. Cognitions about the premium version are affected by the cognition of the free version and perceived value of the premium version (Wagner, Benlian, & Hess, 2014). Adopting the principles of service-dominant logic (Vargo & Lusch, 2004), the value is always co-created with the customer. This means that the value of the service does not exist, until the user accepts the value proposition. That is why the product quality is critical in the trial stage, because it determines whether or not will the consumer subscribe to the paid version of the service (Liu, Yoris, & Hoon, 2015). Willingness to purchase, especially in the hedonic services such as music-streaming services, has been positively linked to the network externalities such as community-driven features, engagement and sharing in online communities (Niemand, Tischer, Fritzche, & Kraus, 2015). Free first strategy is an effective tool for conversion, because it can persuade the customers that were only using the free version of the service to start paying for it. This is further referred to by Bawa & Shoemaker (Bawa & Shoemaker, 2004) as an expansion effect which means, that free samples are able to convert customers that would otherwise not be willing to pay for the premium version of the service without trying it first. "Premium first" strategy is based on providing a user with the full array of premium features at the start. After the initial period, the user will get downgraded to a free user with limiting the features that were available to said user upon start (Koch & Benlian, 2017). We did not find any evidence of "premium first" being used among the services that have been examined in our research.

From the consumer psychology perspective, the effectiveness of the freemium subscription model can be attributed to concepts of loss aversion and switching costs. Loss aversion is a tendency to consider losses more heavily than gains (Griskevicius & Kenrick, 2013). Most of the transactions carry certain amount of risk. The risk is related to the fact that

customer has to commit with certain amount of money (Anderson, Free: The future of a radical price, 2009). Switching costs are onetime costs that consumers associate with switching from one service provider to another (Burnham, Frels, & Mahajan, 2003). We assume, that if the user got used to the features of premium service, it is a psychological switching cost for the said user to change to the set of free features or to change the service provider altogether. Switching costs are positively linked to the prolonged service use. The need for transferring the data to an alternative product, changing formats and learning to use new product are all barriers against switching to an alternative provider (Yogev, 2012).

3.4.2 Premium fit

Conversion rate of free users to premium has further been linked to the premium fit. Premium fit describes the extent to which free and premium version of a service are similar in functionality or quality of a service (Wagner, Benlian, & Hess, 2014) or the fit between the focal product or service and the (Palazon & Delgado-Ballester, 2013). This is further supported by value co-creation literature. (Payne, Storbacka, & Frow, 2008). In the extant literature, there are two conflicting perspectives on the premium fit and its effect on user conversion. Both perspectives are further elaborated upon below.

Since the free version serves as an advertisement for paid, premium version of the service, increasing a premium fit will increase premium cognitions which might in turn lead to free users converting to premium, because free users are able to test more of the premium features (Wagner, Benlian, & Hess, 2014). However, not all the users satisfied with the free version of the service will convert. Innovative users are more like to convert to premium than the users that are not considered to be innovative (Kim, Lee, & Zo, 2018).

Some researchers are critical of the relationship between premium fit and conversion rates. Managing to subscribe a user for a trial or a free version of a product does not necessarily lead to user conversion (Bawa & Shoemaker, 2004). Even though it has been found that longer the user uses an application, bigger is the likelihood of continued use, the usage period has negative impact on the intention to purchase (Kim, Lee, & Zo, 2018). Once a free usage period exceeds a certain limit, the likelihood to convert the user to a paying customer becomes zero (Yogev, 2012). Users perceive the free version as having no sacrifice (Niemand, Tischer,

Fritzche, & Kraus, 2015) and as they are getting used to the features of the free product, the motivation to convert decreases.

High premium fit between the free and premium version of freemium service means that almost all of the premium functions are included in the free version of the service (Wagner, Benlian, & Hess, 2014). This leads to the freemium effect which occurs when free service provides more value than the paid premium services (Niemand, Tischer, Fritzche, & Kraus, 2015). This refutes the statement of Wagner, Benlian, & Hess (2014) stating, that high premium fit will convert consumers from free to premium by saying that if there are too many similarities between free and premium service, users will not have enough motivation to pay for the said service. Switching costs are decreased by the freemium effect because switching to a different provider is free (Strategic Direction, 2017). Users are more prone to avoid losses than to acquire gains (Griskevicius & Kenrick, 2013). Only small incremental changes to the existing product might not be enough to convince the consumer to switch. Greater satisfaction with incumbent service provider is associated with high switching costs (Burnham, Frels, & Mahajan, 2003). This is further supported by consumer psychology theory about loss aversion (Griskevicius & Kenrick, 2013) where the gains of premium version of service are not big enough to outweigh the losses (paying money). Prolonged use of certain service in its free version has been found to have a negative effect on the purchase intention (Kim, Lee, & Zo, 2018).

3.4.3 Purchase intention

There are obvious conflicts in the existing literature about the relationship between the premium fit and the purchase intention. In order to make sense of the user conversion, we propose a service-centred view on the nature of freemium subscription services. Service-centred view begins with the definition of the individual customers' problem, development of customized solution and delivery of that solution to the customer (Vargo & Lusch, 2004). Customers expect firms to increasingly customize their products in order to meet their demands (Ramani & Kumar, 2008). Only if producers know what customers want, are they able to develop superior, customer-centred products (Füller & Matzler, 2007) and services. This can be done by inviting the user to co-produce the value offering itself (Lusch & Vargo, 2006). Customers provide critical input to the value creation process through their subjectively

determined value foundation and by taking an increasingly more influential role in the company's process (Saarijärvi, 2012).

Free offers can be used to attract new users while at the same time generate strong upselling potential via the feature set (Niemand, Tischer, Fritzche, & Kraus, 2015). By allowing the customers to co-create the service offering using the customization features in the premium, the value proposition will then be tailored according to the needs of each individual customer. Only small, incremental changes between the free and premium version of the service might not lead to a conversion of free user to a paying one. Since the customer is always a co-producer, it is necessary to shift the marketing efforts toward mass customization and relationship marketing by designing evolving value offerings that meet customers' evolving needs (Vargo & Lusch, 2004). The co-creation of value will not only improve product design, but also to establish more effective service mechanisms based on customer needs, and to better satisfy customer preferences (Tung, Liang, & Chen, 2014).

Externalities refer to direct physical effect of the number of purchasers on the quality of product (Katz & Shapiro, 1985). Network externalities play an important role in the digital product market. The strength or extent of network externalities seriously affects the overall value or quality of digital products (Lu & Poddar, 2018). Users gain value from the platform or service because everyone else uses it (Laudon & Traver, 2014). In other words, how much value each group of users get from the platform depends on the size of the other group. Accordingly, the pricing strategies to each side of users are linked closely (Weyl, 2010). Positive externalities bring huge value to both sides of users of a platform while negative externalities reduce the value for each side of users (Parker, Van Alstyne, & Choudary, 2016).

For lots of platforms, the maximization of the total number of users on both sides of the platform facilitates the creation of positive network effects (Wagner, Benlian, & Hess, 2014). Network effects describe the impact that the number of users of a platform has on the value created for each user (Parker, Van Alstyne, & Choudary, 2016). Network effects can be either positive or negative. Positive network effects refer to a well-managed platform where growth of both value producers and value consumers increases at the steady rate, increasing value for both sides at the same time. Negative network effects refer to a situation where one side of the platform grows much faster/not fast enough than the other side which in turn decreases the

value for either consumers or producers of value. Network effects and the social influence related to it is positively related to a customer adopting a freemium service (Choi, Lee, & Soriano, 2009). Social influence and externalities, however, are only influential for acquisition of free users. Network effects have been proven to have no effect on converting to a paid user (Yogev, 2012). Every user needs to evaluate the features in both free and premium version by themselves and the social factors have no influence over the decision to purchase. Furthermore, the time period each user needs to accept and adopt premium version of service is different.

3.5 Customer retention in freemium business model

In the e-commerce industry, for lots of firms, the value of existing customers equals the total value of potential customers. Therefore, customer retention is the key to maintaining market competitiveness (Sadighi, Ghobadi, & Hasanpour, 2015). Marketing in subscription economy is no longer just about getting to the point of sale. To keep subscription customers renewing and re-engaging, companies have to provide real value and solve problems (Tzuo, 2018). Existing customer delivers significantly greater profitability than a newly acquired one (Maechler, Neher, & Park, 2016). That is why firms must put an effort into the customer retention. Customer retention are techniques used to maintain a relationship with an existing customer (Chaffey & Ellis-Chadwick, 2016). Besides the cost-per-acquisition as key measurement, researchers and practitioners are focusing on life-time value of a customer (Lemon & Verhoef, 2016). Life-time value of a customer (LTV) refers to the total benefit that a customer or group of customers will provide over their total relationship with a company (Chaffey & Ellis-Chadwick, 2016). Applied to the subscription economy, key indicators of LTV are metrics such as churn rate (Tzuo, 2018) or renewal rates (Mullins, 2014).

Main tools used to maintain and increase customer retention are customer relationship management (CRM) and customer experience management (CEM). Customer relationship management is an integrated approach to managing relationships with the customer focused on customer retention and relationship development (Chen & Popovich, 2003). CRM has been criticized by researchers for being focused on value extraction based on the existing data about a customer at the point of sale (Lemon & Verhoef, 2016) and uses the information such as history of service requests, product returns, number of purchases, inquiries and many other issues (Meyer & Schwager, 2007). More recent research is shifting the focus from CRM to

customer experience management. Customer experience management is a holistic approach to managing customer experience and customer engagement across multiple touchpoints including web, mobile and social digital platforms (Chaffey & Ellis-Chadwick, 2016). It is a cultural mindset toward customer experiences, strategic directions for designing customer experiences, and firm capabilities for continually renewing customer experiences, with the goals of achieving and sustaining long-term customer loyalty (Homburg, Jozic, & Kuehnl, 2017). CEM captures and distributes what a customer thinks about the company at points of customer interaction touch-points before, during and after the purchase (Meyer & Schwager, 2007).

Touchpoints are individual points of contact between the customer and the organization at a distinct point in the experience (Lemon & Verhoef, 2016). It is important to manage all the touchpoints along the customer journey in order to enhance the total customer experience. Total customer experience is a multidimensional construct that involves cognitive, emotional, behavioural, sensorial and social components (Lemon & Verhoef, 2016). However, management of the touchpoints themselves is not enough. Focus on individual touchpoints misses the more important part, which is the customer's end-to-end experience (Maechler, Neher, & Park, 2016) which creates customer journey. Customer journey is the sequence of events that customer goes through to learn about, purchase and interact with company's value offerings (Norton & Pine II, 2013). A brand can be built up or torn down by any of the touchpoints on the customer journey (Hogan, Almquist, & Glynn, 2005) which is why it is important to manage the touchpoints themselves and the chain of these touchpoints creating customer journey at the same time. Indeed, performance on journeys is substantially more strongly related with customer satisfaction and other metrics, than performance on individual touchpoints (Maechler, Neher, & Park, 2016).

Even though free version of the service is just an advertising tool for the full premium version (Wagner, Benlian, & Hess, 2014), it is important to keep increasing value for non-paying users as well. Greater is the perceived value of a service as compared to the competition, greater is the likelihood of customer to purchase and stay subscribed (Choi, Lee, & Soriano, 2009). The logic of the freemium model requires not only a constant new user acquisition but also persistent user retention. Value for customers is created throughout the relationship by the customer in the interactions between the customer and the focal firm (Vargo & Lusch, 2004).

The company's goal should be to align its business strategy and the experience that create the most value for the customer (Norton & Pine II, 2013). The goal of business should be first, to identify the wants and needs of a customer and the create a service that delivers ongoing value to those customers (Tzuo, 2018). Companies that have adopted a subscription model are not selling products, whether it is tangibles or intangibles. This means that they cannot rely on individual transactions and manual repurchases (Tzuo, 2018). It is important to align the strategic direction of a company towards customer centricity. When a company is able to understand the needs of individual customers, then they can adjust a value offering according to those findings. This in turn creates recurring subscribers which are a sustainable source of revenue for the company.

The perceived customer value should inherently increase to keep users loyal and increase their switching costs (Strategic Direction, 2017). Switching costs are real or perceived costs that incurred by moving to a new service provider (Czajkowski & Sobolewski, 2016). Increased switching costs have been found to have positive effect on purchase intention and customer retention (Kim, Lee, & Zo, 2018). Switching costs include all the costs of a customer when changing to a new supplier, such as new contract, data re-entry or learning how to use a new system (Porter, 2001). In reality, because of the easy comparison of the services and easy access of information, the switching costs are decreasing. That is why it is important to maximize customer value. It is important for providers to increase the value-for-money ratio by, for example, adding exclusive content or additional features (Wagner, Benlian, & Hess, 2014). Perceived value of using the fee-based online content and the ease of use of this content has been positively linked to the intention to purchase and stay subscribed (Choi, Lee, & Soriano, 2009). Customer value creating process, however, should not be viewed as in the traditional "engineering sense" but as dynamic, ongoing, non-linear and often, subconscious process (Payne, Storbacka, & Frow, 2008). This, of course, applies to freemium subscription models as well. In order to succeed with freemium model, it is important for online digital companies to continuously improve their value offerings (Strategic Direction, 2017).

3.5.1 Lock-in Strategy

Lock-in strategy refers to the strategy that make customers dependent on a vendor so they can't easily change to alternative seller without additional switching costs, including real

and perceived costs (Pagani, 2008; Sadighi, et al., 2015). Classified by switching costs, there're seven types of lock-in, including information and databases, search costs, loyalty programs, specialized suppliers, contractual commitments, durable purchases and brand-specific training lock-ins (Shapiro & Varian, 1999). These lock-in strategies and switching costs related to them are summarized in table 4 below:

Type of lock-in	Switching costs
Information and databases	Transforming data into a different format
Search costs	Searching for alternative providers or services
Loyalty programs	Loss of benefits from incumbent provider Possible needs to rebuild cumulative use
Specialized suppliers	Monetary costs may increase over time
Contractual commitments	Risk of breaking a contract and paying the liquidated damages
Durable purchases	Cost of purchasing new equipment
Brand-specific training	Learning to use a new device or system

Table 4 - Different kinds of lock-in strategies

Information and databases lock-in usually happens when providers create their own formats so the content can't be used directly without their software or applications. If pirates want to copy the content, they must convert the data into common formats. Search costs in freemium model refer to the time and energy customers have to spend when searching for free alternatives. Loyalty programs usually offer special benefits to customers. These benefits are only available to customers after certain usage period or after certain amount of purchases. By transferring to a different service, users would lose all of those accrued benefits. Specialized suppliers lock-in reflects that though new suppliers may have some price advantage at the beginning, this advantage may weaken over time. Lots of firms, that have adopted subscription model also use contract terms to increase switching costs. Sometimes there is a binding period in the contract and even though customers would cancel, companies will still charge for some time after cancellation as a penalty. Durable purchases are the cost of purchasing new devices. When customers want to use Apple iOS system on their phone, they have to buy an iPhone. Brand-specific training points out that when switching to a new device or system, people have

to get familiar with it and set up lots of small things before they can start using the product or service. By finally learning to use the product or service, users are less likely to be willing to go through the whole process again.

3.5.2 Interaction orientation

In the time, where there is increased profitability pressure and customers requiring customized service offerings, it is necessary for the firms to develop an orientation that is suitable for increasingly more interactive market environment (Ramani & Kumar, 2008). Market orientation as a strategic direction is focusing on competition and goal accomplishment and disregards the needs for customer individuality (Thalmann & Brettel, 2012). This approach has become obsolete in the new subscription economy. Marketing efforts have to move from market segments to individual customers (Ramani & Kumar, 2008), because even though customers can be generalized into target groups, they will still have their own individual needs and preferences towards a product or a service. Customers have become a critical asset which firms should learn from and manage to enhance company value (Tung, Liang, & Chen, 2014). It is important, that the provider firms investigate customer adoption process and provide customers with customized benefits (Choi, Lee, & Soriano, 2009). Technological advance pushes the boundaries between the customer and the firm, while the interactivity between the two is increasing (Yuan & Liu, 2013). The main benefit of the technological advancements combined with high interactivity in the market is the possibility to establish an interactive marketing model that focuses on co-creation of value (Tung, Liang, & Chen, 2014). Interaction orientation is a firm-level orientation towards individual customers where customer's knowledge is integrated into firm's processes and practices (Thalmann & Brettel, 2012) to achieve profitable customer relationships (Ramani & Kumar, 2008). This is in contrast with more traditional market orientation that is focusing on the market, target groups and competition (Thalmann & Brettel, 2012). Main unit of analysis in interaction orientation and interactive marketing is individual customers, that help the firm to gather knowledge related to their needs and preferences and apply this knowledge to the service offerings (Tung, Liang, & Chen, 2014).

To reap the economic benefits of available customer data, firms need to develop the practice of aligning resources spent on customers in proportion to the revenues or profits derived from them (Ramani & Kumar, 2008). Companies need to analyse how to attract right

customers, minimize use of resources and maximize the value for the customer (Norton & Pine II, 2013). It is therefore necessary to identify the touchpoints that matter the most and focus the interaction orientation efforts on them. It is important to focus the investments on the touchpoints that are most important to generate demand while constantly controlling their performance (Hogan, Almquist, & Glynn, 2005). Interaction orientation in digital enterprises is relatively high (Thalmann & Brettel, 2012). We assume that this applies to the enterprises that have adopted freemium subscription revenue model as well. Superior interaction response capacity and consistent customer empowerment is likely to result in greater customer satisfaction (Ramani & Kumar, 2008). This means, that more the company is able to customize the premium features to the individual customer, more value it creates for the said customer which in turn increases customer satisfaction and customer loyalty. On the other hand, if the value offering in premium version of the service is not tailored to the needs of each individual, it might result into converting the said customer back to a free user or even worse, losing the user completely (Ramani & Kumar, 2008).

Interaction between the company and the customer is not the only area, that the firms have to manage. In today's interconnected world, the customers interact between each other. Social factors and perceived consequences from using a subscription service play important roles in customer acquisition and retention (Choi, Lee, & Soriano, 2009). As an example, customer reviews of the online service have become one of the key points of reference for the customers deciding to adopt a new product. However, it has been proven that the user reviews have more impact on the services with the utilitarian value (in our case anti-virus software, cloud storage platforms) than the ones with hedonic value (in our case music and video streaming services) (Liu, Yoris, & Hoon, 2015). Reviews of the utilitarian services can be used for further development of the service. Firms have to consider to what extent they will consider these comments valuable. If the company is in search for radical innovations, input from the users is of limited value, since users are unable to express their needs and state a clear preference (Füller & Matzler, 2007). If the company manages to identify a serious issue in their offering based on recurring reviews, they might use the concept of open innovation to some extent. Open innovation is a more distributed, participatory and decentralized approach to innovation based on the understanding, that the knowledge is widely distributed, and no single company can possess all the knowledge (Chesbrough, 2011). Users are not only asked about

their opinions, but they are invited to contribute to the problem-solving, generating new ideas and contribute to the overall improvement of the product (Füller & Matzler, 2007). Based on the complexity of the problem and the knowledge required to solve that problem, companies have to balance the level of open innovation across several governance forms such as contests, tournaments user communities (Felin & Zenger, 2014). Choosing the right governance form according to previously mentioned criteria is critical since choosing the wrong one may have counter-productive effects. The involvement of too wide audience to innovate reduces speed, flexibility and control over the decision-making process, which might cause the company not to innovate at all (Hautz, David, & Whittington, 2017). This is further supported by Füller & Matzler (2007) saying, that customer should not be listened to too closely, because it may result in incremental improvements only.

3.5.3 Service orientation

It is important for the firms to realize the importance of customer loyalty, especially when it comes to subscription-based business models. It is critical to regard to customer relationships as long-term assets (Avery, Fournier, & Wittenbraker, 2014). In order to increase profitability and growth, it is necessary to reorganize marketing around customer relationships (Avery, Fournier, & Wittenbraker, 2014). Customer's assessment of a service experience influences outcomes such as customer satisfaction and loyalty (Lemon & Verhoef, 2016). Customer loyalty is a desire on the part of the customer to continue to do business with a given supplier over time (Chaffey & Ellis-Chadwick, 2016).

Service-profit chain is a framework related to customer journey management stating, that profit and growth are stimulated by customer loyalty which is a direct result of customer satisfaction (Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994). Customer satisfaction is the extent to which a customer's expectations of product and service quality are met (Chaffey & Ellis-Chadwick, 2016). Elements such as product quality, customer service, employee behaviour and community relations all shape the perception about the service and the brand over time (Hogan, Almquist, & Glynn, 2005).

The need of increased quality of service across online and offline touchpoints led to development of service orientation approach among practitioners and researchers. Service

orientation is a set of competences within the organization, that make it consistently easy for the customer to conduct business with the company (Oliveira & Roth, 2012). As mentioned before, organizations can only create a value propositions which creates value only when accepted by the consumer (Vargo & Lusch, 2004). It is therefore important, that the organization creates value propositions that are relevant for long-term growth and driving customer loyalty. Companies have to create an environment that supports sustainable development – the employees should be able to maintain a constant innovation that does not end at a specific point in a life-time cycle of a product or a service (Tzuo, 2018). A service-oriented company will strive to satisfy its customers, create and deliver value for the customers and increase profitability and performance (Oliveira & Roth, 2012). By setting up marketing beliefs around individual customer and superior interaction response capacity, the company will not only identify the most profitable customers but also maintain a long-term relationship with the customer and increase overall customer satisfaction (Yuan & Liu, 2013). The higher the level of customer satisfaction after the usage of subscription-based service, the customer is more likely to keep subscribed to the said service (Choi, Lee, & Soriano, 2009).

3.5.4 Impact of interaction orientation and service orientation on business performance

Interaction orientation can be considered as an evolution in customer relationship management. As mentioned before, technological advances today allow companies to tailor the service offering according the needs, preferences and past behaviour of the users. Once the practices and beliefs related to interaction orientation are successfully implemented by the company, it leads to a superior business performance relative compared to the competition in the similar area (Ramani & Kumar, 2008). Effective management of individual customer interaction leads to a sustainable competitive advantage (Liang & Zhang, 2012). This competitive advantage lies in company's ability to integrate customers into core value creation, absorb their knowledge, discover their needs and strengthen company's core competencies (Füller & Matzler, 2007). Firms, that are able to successfully implement principles of interaction orientation will be able to retain the most valuable customers, develop these customers as a resource for the firm, decrease the willingness of customers to switch service providers, develop new products, develop the ability to forecast customer responses and in turn, generate superior business performance (Ramani & Kumar, 2008).

Service orientation and service-dominant logic (Vargo & Lusch, 2004) demonstrate, that services and service quality are important when achieving a long-term sustainable competitive advantage. Service orientation is proven to affect the creation of superior value, customer satisfaction, growth and profitability (Lytle & Timmerman, 2006). Customer is not buying a tangible product, but rather a service flow related to the said product or service (Oliveira & Roth, 2012). This is also a case with the freemium subscriptions, regardless if it is a music-streaming service (Spotify) video streaming platform (YouTube) or any other. If company wants customer to stay subscribed in the long-term, it is important for the firm and its employees to be oriented towards service excellence. Firms with higher level of service orientation experience higher levels of financial performance (Lytle & Timmerman, 2006), increase in customer retention and the revenue from the premium subscribers.

While interaction orientation and service orientation are two different ways of strategic direction of a company, they both aim to maximize the value to the customer and increase service satisfaction. Both service orientation and interaction orientation have been proven to be effective when business aim to enhance customer identification (Tung, Liang, & Chen, 2014) which satisfies the individual's needs for self-definition and create a long-term relationship between the company and the consumer. Interaction orientation or service orientation by themselves are not enough to achieve customer centricity (Thalmann & Brettel, 2012). It is therefore important to explore how the combination of these two directions affect the business performance.

3.6 Summary of theoretical findings and research directions

Our review of secondary research has revealed several aspects relevant for freemium subscription business model and its validity. Extant research is not clear about the impact of premium fit and to what extent there should be a difference between free and premium version of the service. Some researchers (Wagner, et al., 2014; Kim, et al., 2018) propose that low difference between paid and free version of the service will lead to higher conversion due to high satisfaction with the free version and psychological obligation to pay, others (Bawa & Shoemaker, 2004; Niemand, et al., 2015) propose that low difference between free and premium will not increase the conversion because the difference is not motivating enough. Resolution of this conflict is one of the goals of our research.

Interaction orientation and service orientation seems to be key aspects of strategic direction of companies adopting xxx-as-a-service business model. Extant research about subscription economy and its elements clearly states, that the ability of companies to create customized solutions for their users is a key advantage over the old "shelf-ware" approach to sell services. We have found a lot of data confirming the importance of individual interaction with the customer and product development according to their individual needs. This theory is mostly applied in the subscription companies working in the business-to-business environment, while application of these theories in the consumer market remains scarce. At this time, when it comes to services satisfying hedonic needs of its users, such as music or video streaming services, the service customization at its current state relies on the suggestions made by algorithms that are supposed to personalize the service for each individual user based on their usage history. However, we did not find any research exploring how different pricing strategies combined with different versions of the service can be used to increase user conversion. Currently, the major freemium service companies use different pricing strategies such as bundling or discounts. The features of the service offering itself, however, remain the same. There is a free version of the service, with limited features and paid version with all the features the platform can offer. Extant research did not explore the possibility of middle level which is commonly used in the subscription economy.

Current literature generally agrees that the switching costs are of great importance when it comes to user retention. Switching costs are increasing with prolonged usage of the service due to increasing familiarity with service features and the nature of the service. As mentioned in the research questions section, in our research we will test this theory by applying the perspective about the nature of the product to the mix. Whether it is the custom playlists on music-streaming services or stored files in the cloud storage services, prolonged usage of said service has been found to have positive link on user retention. Our research will aim to test this theory on a specific sample while considering the nature of a service and what is the service used for.

4. Research Methodology

To answer our research questions, how to make the freemium subscription-based business model sustainable in a long-term, we focus on customer attraction and retention. In this chapter, the philosophy of science is explained and the way we understand the knowledge creation is introduced. The selection and implementation of qualitative methods appropriate for the study are described and considerations related to data collection are proposed.

4.1 Paradigm: Positivist research philosophy

Though freemium business model is not new anymore, there are few theories or concepts that can explain or guide the practice properly. We want to explore what are the motivations for customers to subscribe to a service even if they can use it for free and how will premium features, price and versions affect recurring payments. Since we believe that truth and reality is free and it's independent of the consciousness of observers or viewers (Kawulich & Chilisa, 2012; Aliyu, et al., 2014), we adopt the positivist approach. The methods of studying the natural sciences will be conducted in social science research (Crotty, 1998).

The ontological approach of this research is social constructionism which means that reality is built through social interaction and shaped and influenced by our acknowledgement of it (Fuglsang, 2009; Saunders, 2009). How freemium business model is socially comprehended and how this model is constructed and maintained through companies' operations which influence customers' consumption are the focuses of this research.

4.2 Approach: Inductive research

The purpose of gathering data is to build up theoretical proposals instead of testing theories, so inductive strategy is used to analyse empirical data (Bell, Bryman, & Harley, 2009). In other words, with induction, a theory is developed based on the analysis of the data (Saunders, 2015).

When conducting a qualitative research, avoiding the empirical results, that are perceived only in certain situations is very important, so background including historical,

geographical and socio-cultural elements should be considered during data collecting and processing stage (Saunders, 2009; Askegaard & Linnet, 2011). As subjectivists, we're interested in various ideas or opinions that can help to explain different social actors' social realities (Saunders, 2015).

To obtain more information, qualitative methods such as focus group and individual interview are adopted. As previous researches have given us inspiration, this study is not completely inductive, and we adopt some elements of deductive approach. Referring to these researches, our theoretical underpinnings are settled down. Theories of freemium business model, pricing strategies, customer conversion and retention are used to analyze and explain specific contexts.

4.3 Research strategy: Interview-based study

As described above, this is an interview-based study. We are doing a multi-method qualitative research. With sequential multi-method work, the results from previous stages can be used to design the later method (Heath, 2015). In this research, firstly, we have a focus group interview with six people. According to the focus group interview, we find plenty of interesting issues and try to dig deeper into them by doing some individual interviews.

Multi-method analysis (MMA) is an interdisciplinary research approach. The essence of this strategy is combining different quantitative and qualitative research methods to make triangulation and explain the findings in depth (Takhar-Lail & Ghorbani, 2014). By comparing results from different methods, it's possible to exceed the limitation of each single method (Heale & Forbes, 2013). If different methods can generate same or similar results, it can prove the research is valid and reliable.

4.4 Axiology

The knowledge created in this research is limited by researchers' contexts because that knowledge can never reflect the reality and they're just the explanation of the reality. It's difficult for people to detach themselves from their own values, so they have to acknowledge, reflect and question their own values (Cunliffe, 2003). Remaining neutral and detaching from

the research data is crucial to avoid affecting the findings (Crotty, 1998). Since we can't fully objectify ourselves, this research relies on our abilities as researchers to interpret and understand other's reality (Hirschman, 1986).

Our goal is to contribute with more knowledge towards the sustainability of this business model and help companies that have adopted or plan to adopt the business model by identifying customers' needs and wants and implement strategies more wisely. It's a value-free research in which researchers are detached, neutral and independent of what is studied. We try to maintain objective stance and disregard our own preconceptions about the object of this research (Saunders, 2015).

4.5 Data collection methods

The data used in this research is mostly our primary data which comes from a focus group interview and 11 individual interviews. However, secondary data from literature is an important supplement.

4.5.1 Focus Group Interview (FGI)

In order to clarify our research directions, a focus group interview is designed. Firstly, after a brief introduction of our thesis topic and what is a freemium service, interviewees were asked to write down some of freemium services they are using or have used. Since the purpose of the FGI is to collect a variety of information and try to find some inspiration for the study and follow-up research, we only prepare some kick-off questions at the beginning and throw out some prompts when the discussion gets stuck somewhere along the way. Some kick-off questions are listed in Table 5. Pauses and probes like "Would you explain further?", "Would you give an example?" and "I don't understand." are used to dig deeper into the facts. We try to let the participants talk about their feelings and opinions more naturally.

Kick-off Questions
1. When did you start to use these services? Why? 2. Tell me about positive experiences you've had with XXXX? 3. Tell me about disappointments you've had with XXXX? 4. Who or what influences your decision to purchase on XXXX? 5. When you decide to subscribe XXXX, what do you look for? Take a piece of paper and jot down three things that are important to you when you purchase? 6. Let's list these on the flip chart. If you had to pick only one factor that was most important to you, what would it be? You can pick something that you mentioned or something that was said by others. 7. There may be some alternatives. Have you ever changed brands? What brought about the change? (What are the differences between the two websites?) 8. Have you ever changed brands or types of XXXX? What brought about the change? 9. If they launch a new tier in the middle, are you willing to buy it?

Table 5 - Kick-off questions for focus group Interview

When the preparation is done, we spread our invitation to the FGI in lots of students' Facebook groups. Before we have invited people to the FGI, we made sure that they indeed use the freemium subscription services to ensure higher reliability of the results. As a result, we got 10 people who were interested in this topic and wanted to participate. Due to some personal reasons, 4 people were not able to attend the interview. Based on scholars' suggestion, the best group size is around 6-12 (Dilshad & Latif, 2013). This FGI ends up with 6 participants so we have reached a suitable size of the focus group.

4.5.2 Individual Interviews

The FGI generates some ideas that need to be further probed and confirmed. Individual interview is a good tool to probe individual experiences. Theoretical saturation can only be reached after 10-12 interviews (Breen, 2007) so we have 11 interviews. Limited by culture and user habits, one interview doesn't provide enough interesting facts and can't help solving the RQ, we won't analyze or discuss it.

Interviewees are invited because they do use freemium services, even if some of them never pays for any of the services. The first seven interviews are done by both researchers with one interviewee. The rest are one-to-one interviews. All the interviews are semi-structured. We

formulate 13 questions to ask and always try to dig deeper when interviewees mention something interesting. The full list of questions can be found in the Appendix B.

4.6 Research sample

We have used convenience sampling to gather participants for our research. The overall idea of convenience sampling is to reach out to people in our close proximity, whether it is from social or geographical point of view. Firstly, we have approached our personal friends and then other college or graduate students in Copenhagen. This gave us a diverse sample of total of 17 participants. The participants were all students aged between 20-30 years of age. All of them come from various countries (Canada, USA, China, Denmark, Romania etc.) and currently have relatively stable economic background. Even though more interviewees were available to us, we have decided to stop the interviews once we have reached 10 relevant interviews. First, it is due to the labour intensity of analysing the interviews, so it would be impractical to analyse larger sample. Second, we believe that after 10 interviews and 1 focus group with 6 participants we have reached theoretical saturation and further interviews would not bring any new insights.

4.7 Data Analysis

All the data collected is analysed to answer the RQ: **How to make the freemium subscription-based business model sustainable in a long-term**. We have identified two personas in this research – users with low willingness to pay and users with high willingness to pay. Our main objects of research are music-streaming services, video-streaming services and cloud storage services. We compare results for each one of these categories in the next sections.

Thematic analysis is used to identify themes and analyse the data (Braun & Clarke, 2006). Transcriptions are coded with the support of software NVivo version 12. We have done two rounds of coding. The first round aims at identifying the things users care about when they make a decision on paying a freemium service or upgrading their services. In the second round of coding, we re-group the first-order codes into second-order codes which extract customers' motivations of purchasing or upgrading services. Table 6 is an example of the coding procedure.

Data	First-order coding	Second-order coding
"I use AdBlock on my computer so I can just ignore the ads" [FGI01]	AdBlock	Ads
"If it's the same price, I think the convenience is there. Because I now have my playlists. The convenience of staying is more important than price." [FGI03]	Convenience	Customer related issues
"YouTube actually has it as a part of their subscription, and I was considering switching to that. If it (Google) would bundle their services together..." [FGI05]	Bundle	Marketing tools
"It's not only documents, but it's for apps, photos, music. Dropbox is only for documents. Because I only use Dropbox for documents. iCloud is everything" [FGI03]	Functionality	Nature of the service
"I actually choose Apple music after the whole Taylor Swift thing. So I thought for artist, it's better to choose Apple Music because they care more about the artist." [FGI02]	Policies to content providers	Nature of the website

Table 6 - Example of the coding procedure used during our analysis

Secondary data is used to confirm the findings generated with primary data.

4.8 Validity and reliability considerations

Validity is the "appropriateness" of the tools, processes and data. Triangulation, traceability of the data, multidimensional analysis and respondent verification are usually adopted to enhance validity. The essence of reliability lies with consistency. Five approaches which can enhance the reliability are refutational analysis, constant data comparison and comprehensive data use (Leung, 2015). Since we are exploring a complex business model across three different categories using inductive approach, interviews combined with focus group are right choice of data collection methods. Therefore, our research can be considered valid.

In this research, there are two sources of primary data. The first is the FGI and the second is individual interview. FGI reflects people's opinions and thoughts of a specific topic when they are with some companions while individual interview indicates people's perceptions of a problem when they're alone. Nevertheless, our two different data collecting methods lead to the same result so they can verify each other. Moreover, the result generated can be explained by previous theories. Except for that, all the preparations for the interviews can be traced and all the interviews are recorded and transcribed. The video of FGI is provided as an attachment and the transcriptions of both FGI and individual interviews are in Appendix A Due to large volume of data gathered, we have stored all the interview transcripts and focus group video recording in a cloud storage box. We have provided an URL to access these resources. At the end of the research, we have used triangulation to confirm reliability of our research. We came back to the several of the interviewees and report our findings and conclusions to them and they agree with the results presented to them. Therefore, the research is reliable.

5. Results and analysis

5.1 Facts overview

Both focus group and individual interviews indicated that the most used freemium services can be divided into three categories: music-streaming services, video-sharing services and cloud storage services.

	Subscription services	Number of interviewees	Number of paid interviewees
Music-streaming	Spotify	13	9
	Apple Music	2	1
	SoundCloud	1	0
Video-sharing	YouTube	16	1
Cloud storage service	OneDrive	1	0
	DropBox	6	0
	iCloud	7	4
	Google Drive	5	0

Table 7 - Interviewees' subscription status

Among those three kinds of services, music-streaming service has the highest rate of subscription and cloud storage service also has some paid users. However, almost all of the interviewees used video-sharing website to watch videos in its free version - only one of the research participants is paying for premium subscription on YouTube.

Advertising, customer related issues, marketing tools, nature of the service and nature of the website have various impacts on the decision-making. Each of these elements is analysed separately while aiming to create a complete cohesive picture of their impact on each of the freemium subscription service categories.

5.2 Advertising

Hedonic freemium services that are being examined in our research can be divided into two categories - ad-supported basic service and ad-free premium service (Sato, 2019). In the focus group interview, an interviewee complained about the continual advertisements which are in between every song.

> *"The advertisement is like after one song, you have the Spotify ad and the next song, you will have the commercial. And another Spotify ad and a commercial one." [FGI03]*

Moderators always get affirmative answer when asked the interviewees was removing ads the biggest reason to upgrade the service.

> *"Yeah, it is really annoying" [FGI01]*
>
> *"Yeah and to play the music that I want…" [INT05]*

Due to high frequency of advertisements between the songs and the nature of the service itself, freemium music streaming services use this strategy to convert users from free to premium. Users pay for the advertisements removal because they do not want to have their stream of music constantly interrupted which then interrupts their state of mind, as mentioned by in our focus group interview:

> *"Like when you are having a party and people are not using Spotify Premium and suddenly you get an ad 'Buy Spotify premium' which makes it awkward." [FGI02]*

Due to different impact on purchase intention, we divide advertising into two categories - commercial advertising and promotion of the premium version of the service. We further analyse each of them separately. Our interviewees only mentioned the promotion of iCloud as the advertising in cloud storage service, and according to our research of this kind of services there were no advertisements among other service providers.

5.2.1 Commercial Advertising

When we asked what the main motivation was to pay for Spotify, an interviewee responded: *"there was no commercials."* [INT08]. Current free user also shows interest in paying the subscription fee.

> *"I plan to use the 1-month trial and then probably pay for it because the ads are really annoying."* [FGI06]
>
> *"I've considered to pay for Spotify to remove the commercials."* [INT07]

In the video-sharing area, people are more tolerant of the advertisements. Interviewees didn't find the ads too disturbing, so they didn't see any value for paying the fee to remove the ads.

> *"I think that in case of YouTube, the ads are not that annoying so I would not pay for getting them removed."* [FGI03]
>
> *"I don't care about the ads before the video."* [INT08]
>
> *"I don't feel like I need to, I don't think that I would get anything more out of it, I am fine with watching the commercials sometimes."* [INT03]

According to the interviewees in both FGI and individual interviews, advertisements between videos or even during them are not that disturbing. This has been accredited to the fact, that the biggest video streaming platform YouTube prepares the users for the advertisements and even let the users to skip them completely after 5 seconds:

> *"They are not in the middle of the video. You expect the video to start with an ad - you are mentally ready for it. After 5 seconds you can skip the ad and then enjoy whatever you want."* [FGI04]

5.2.2 Promotions for the service itself

The second kind of advertising that we have discovered in our interviews are promotions for the premium version of the service itself. Companies use short advertisements (Spotify) or notifications on any of the devices (YouTube, cloud storage services) to entice users to purchase the premium plan:

> *"... They are really trying to get you to pay."* [FGI03]
>
> *"I went straight to Spotify premium. Because the ads are like 'upgrade to Spotify premium'."* [FGI01]

Similar situation also occurs in cloud storage service area.

> *"Because it's annoying when it says your phone is out of space. You should buy more space."* [FGI03]
>
> *"Right now, I am using free version, but I am probably going to upgrade soon because I don't have enough space."* [INT06]

Even though video-streaming platforms, such as YouTube, promote their premium subscription in various ways, we did not find any evidence of disturbance created by this kind of ads when it comes to video streaming platforms. As mentioned in the previous section, users have learned to ignore the advertisements so in the same way, they ignore promotions for the premium version of the service.

Users generally find advertising disturbing and an annoyance. However, their attitude towards the advertisement in different services is different.

Music-streaming	Video-sharing	Cloud storage service
Upgrade to premium	Ignore	Upgrade to premium

Table 8 - Different attitudes towards advertisements

5.2.3 AdBlock

AdBlock is a software extension of the internet browsers designed to block advertising from appearing on the screen. AdBlock only prevents advertisements from appearing on the screen. It does not prevent advertising between the songs of music streaming services. Our interviewees use this to disable the advertising on video streaming platforms. With AdBlock, users can "upgrade" to ads-free users without paying the subscription fees.

> *"I use AdBlock on my computer so I can just ignore the ads"* [FGI01]
>
> *"I have the AdBlock, so I'd not really see the ads"* [INT04]
>
> *"I have AdBlock so it (ad) does not really bother me"* [INT05]

5.3 Customer related issues

Ease of use, social presence, richness of content, the degree of co-creation and customers' service experience have impacts on user satisfaction and continuous intention to subscribe (Wang, Huang, & Li, 2016). Key points examined here are complex facts, so they can't be linked to above-mentioned elements individually.

5.3.1 Usage

Usage refers to how often or how intensive and how long do users use the service for. Usage is often mentioned when people say why they don't want to pay for a service or why they pay for a service. This term can be used to explain positive and negative attitude towards paying the subscription fee. In order to understand the results of the interviews, it necessary to make a difference between length of usage and intensity of usage. By length of usage we mean how long has the user used the service for regardless of how often he/she is using the service (some users have been using YouTube for many years but only occasionally). Intensity of usage refers to how often or for how long the user actually uses the service in a certain period (Paying users of Spotify are using the service on daily basis). Users find it meaningless to pay the subscription fee if they don't use the service very often or are not intensive users:

> *"I do not spend that much time on YouTube."* [FGI01]
>
> *"This is something that I am willing to pay for because I use it every day."* [INT02]
>
> *"I am heavily using Spotify Premium."* [INT06]
>
> *"Since I don't use it (Spotify) that much, I use DR app."* [INT07]
>
> *"I don't use YouTube that much. ... I pay for Spotify because I listen to music a lot."* [INT08]

Our research did not find any link between length of usage for and the intention to subscribe to premium version of the hedonic service. Majority of the interviewees do not pay for YouTube even though they have used YouTube for a long time. Our research shows that their usage was not intensive enough to motivate them to purchase. The only one interviewee, who is in fact paying for YouTube mentioned that he is paying for it due to the intensive usage. We have further confirmed this in the case of music streaming services. Since the users use this service on daily basis in high intensity, their propensity to pay is high. This is to increase the quality of the service and the convenience.

Our research has found a positive relationship between length of usage of cloud storage services and intention to purchase. Impact of the usage intensity could not be observed due to the nature of the service. As an example, users store their files on iCloud for a long period of time but they are not necessarily accessing the documents every day.

> *"I have photos on my iCloud. I don't have an iPhone now."* [FGI05]
> *"So even though you don't directly use the service now you still pay for it because of your old files and you don't want to lose them. Is that correct?"* [FGImod1]
> *"Yes."* [FGI05]
>
> *"I use Google Drive, but I still have some files stored on iPhone."* [FGI05]

Usage in terms of cloud storage service also includes the capacity of cloud space. Whenever users need more space, they have to pay.

> *"I pay 25 kr, but it's for 256 GBs."* [FGI03]
>
> *"7 DKK/month to get more space for pictures and document. Before that I have 5GBs. Then I had 50 GBs."* [INT08]

5.3.2 Convenience and service quality

Users see the value of convenience and service quality and think that price or removal of advertisements is not the only thing they consider when deciding whether to subscribe or not. Convenience and the quality of service provided are also important elements of decision-making process:

> *"If it's the same price, I think the convenience is there. Because I now have my playlists. The convenience of staying is more important than price."* [FGI03]

During our focus group interview, the prevailing opinion was that even if the users would be offered a cheaper service with same features, they would stay subscribed to their current service provider:

> *"It would have to be a significant amount before I would switch. "[FGI03]*
>
> *"I get used to it. I'm familiar with the app. I know where's the music." [FGI05]*

An interviewee said he liked Spotify because they have podcasts and it's in the same app with the music. Though Apple Music also has access to podcasts included in the subscription, users have to use separate application to access them. The convenience drives him to stay loyal to Spotify instead of Apple Music, even though he has used Apple Music before.

> *"Yeah you have the iTunes app and then you have the podcasts app and then it's just the Apple Music account that works for both of them." [FGI03]*

Even though advertising has been found to be a part of the motivation to purchase, there are other reasons that motivate heavy users of music streaming services to pay for premium version. While several interviewees have named some of the features that most relevant to them, following interviewee have summarized them all:

> *"Also the quality of music is very important for me, because Spotify Premium comes with high quality of music." [FGI04]*

5.3.3 Familiarity

As mentioned before, cloud storage services and video-sharing have relatively low rate of subscription among our research participants. An important reason is that lots of the interviewees do not even know that they can pay for those services.

> *"Because the paid feature is relatively new, and I have not looked into it." [INT01]*
>
> *"Does YouTube count? Can you pay for YouTube?" [INT05]*
>
> *"I don't even know that I can pay for that. To get more space?" [INT09]*

Familiarity with a certain app and service provider in music-streaming services also have great influence when people consider switching to a different service provider.

> *"I get used to it. I'm familiar with the app. I know where's the music."* [FGI05]
>
> *"Because if a new player comes to the market, they have to start developing the app, they have to start optimizing it and I feel like Spotify has come a long way towards having a very stable app."* [INT05]
>
> *"I think right now I use Spotify because I know about that."* [INT08]

Familiarity with a service and friendly, easy-to-learn user interface have been found to have a positive influence on the intention to purchase.

5.3.4 Loyalty

Attitude towards loyalty differs between individuals. Some of the interviewees are loyal to brands while some are not.

> *"I am addicted to Spotify."* [INT05]
>
> *"I am loyal Spotify user."* [INT06]
>
> *"I don't use anymore Spotify because they do not have something special."* [INT08]

Loyalty towards the brand itself was most common among paying users. We have also explored the same issue with users that are not paying for the service. We asked if they would stay with the service or even start paying, if the service provider would restrict access to certain content behind a paywall. We take into consideration that this content was previously available for free or was already included in the subscription.

> *"Yes, but if it would become paid, I would probably watch something else."* [INT02]
>
> *"Yes, because there I have an emotional connection. But it also depends on what alternatives you have. If I can listen to this on YouTube, then I will not pay. "* [INT04]
>
> *"I do believe that if they would do that, a lot of the creators would change the platform. But if we say, that they did not, I think I would not pay. Simply because I would not want to support YouTube in that decision."* [INT06]

According to our findings, most of the users of a free version of a service would not stay with the provider if the provider would lock some of the content previously available for free

behind a paywall. This can be attributed to the low switching costs between the platforms and a belief, that the content provider would change where he/she would offer content if such a decision would be made.

5.4 Marketing tools

5.4.1 Pricing strategies

Price is very important when people consider buying something or changing their service providers. Most of interviewees are price sensitive. Interviewees mentioned several reasons why they are paying for a subscription service:

> *"I think I will switch to Apple because it's only 99kr and it's 129 for Spotify."* [FGI03]
>
> *"It's cheaper to combine the phone provider and music. A cheaper solution."* [INT09]
>
> *"I think that is mainly for monetary reasons. If I would have more money, I would pay for it."* [INT11]
>
> *During the interviews, 10% discount offer seemed to drive people to switch to cheaper provider.*
> *"Assuming that everything else is equal, then yes."* [INT01]

This observation has only been made at users with generally low intention to purchase. Users, that are already paying for some of the subscription services, whether it is freemium or not, do not consider minor change in price to be a good enough reason to change service providers:

> *"If it's the same price, I think the convenience is there. Because I now have my playlists. The convenience of staying is more important than price. "*[FGI03]
>
> *"Because if a new player comes to the market they have to start developing the app, they have to start optimizing it and I feel like Spotify has come a long way towards having a very stable app because I use it ,mostly on my phone, so that is a big deal for me.. I feel that Spotify is a good app and I would have to create all my playlists again unless they would make an export option, but I don't think that I would bother for 10% off. "*[INT05]

5.4.2 Switching costs

Switching from one online service provider to another is fairly easy and the switching costs are generally low. People usually calculate the switching costs and compare the difference of service between two providers before they make the decision. The difference can be the perceived convenience of the service. As mentioned before, people tend to choose a more integrated service (Spotify which integrates podcast and music streaming in one application) rather than a single function service (Apple Music). If they switch from one to another, they need to download new applications and learn how to use a new system.

Switching costs are directly linked to the price difference between two or more service providers. When offered a 10% discount and asked the users if they would like to switch to a new provider with the same features, most of users said yes but there are two interviewee that have refused the offer. We believe, that this finding can be generalized across all subscription services with a hedonic value proposition.

> *"The actual switching cost (monetary cost) is low. But the amount of effort you have to put into it is so high that it is not worth the effort"* [FGI03]
>
> *"I feel that Spotify is a good app and I would have to create all my playlists again unless they would make an export option but I don't think that I would bother for 10% off."* [INT05]

When we have asked the question during the individual interviews, we got mostly opposite results. Even though the users have their playlists and recommendations at the service provider they are currently using, this incentive is not enough to make them stay if a new entrant on a market is able to provide the same quality of service for a better price.

> *"Assuming that everything else is equal, then yes, I would switch."* [INT01]
>
> *"I have playlists there but for 10% cheaper service I would still probably switch. I mostly use other playlists, not my own."* [INT03]
>
> *"Yeah, I probably would. If not for anything else, then because I think that that kind of competition is what drives services to provide the best, so if a new product comes on the market better than Spotify, then Spotify would have to pick up the pace and that competition is beneficial to the customer. So yeah, I would change the provider."* [INT06]

When exploring this option in the utilitarian service landscape, the results were different. We have found the strongest support in the users of iCloud:

> *"It's not only documents, but it's for apps, photos, music. Dropbox is only for documents. Because I only use Dropbox for documents. iCloud is everything."* [FGI03]
>
> *"I have photos on my iCloud. I don't have an iPhone now and I am still using iCloud"* [FGI05]

While the price is not the main decision-making factor when it comes to user conversion, it plays a very important role in user retention. Due to low switching costs between hedonic services, any new market entrant that is able to undercut the price of the incumbents, while maintaining or exceeding the service quality, could cause a churn of users to the new service.

5.4.3 Bundling

Many of the interviewees have subscribed to the services with their friends and family or just shared one account with someone else:

> *"It's mostly because my girlfriend wanted premium. I actually think that it is because her parents pay for it."* [INT01]
>
> *"I have started using Spotify for free and then I just felt like it is a better service and I had an opportunity to get the paid subscription because I pay with my family."* [INT03]

During our focus group and interviews we also explored an option where there would be two subscription services bundled together for a favourable price. This option also seemed interesting to our interviewees:

> *"YouTube actually has it as a part of their subscription, and I was considering switching to that. If it (Google) would bundle their services together..."* [FGI05]
>
> *Do you have any discount because you use the operator?* [Mod 2]
> *"Yes. It's included in my monthly pay. I pay 169kr/ month for both telephone service and my music."* [INT09]
>
> *"That depends if I would still be able to not choose the bundle and just continue to pay for Spotify as itself. Then I would just keep doing that. But if I wanted to use Spotify and I would have to buy the bundle, then I would probably just buy the bundle."* [INT06]

As we can observe in the INT06, companies have to be careful which of the services are bundled together. We specifically asked INT06 if he would be interested in bundling Spotify and YouTube together and since his purchase intention towards YouTube is generally low, he would opt out of this deal. He would only pay if he would lose his access to Spotify Premium.

5.4.4 Versioning

There are two kinds of versioning in freemium subscription business model. The more complex one is price discrimination while the other one is customization. These two kinds of versioning can be used either separately or together.

Student version is an example for price discrimination, and it was mentioned by many interviewees since as students, their price sensitivity is high. Though this version attracts students to subscribe while the discount is valid, part of users who use the service because of the low student price may change to other cheaper services when they lose their deal.

> *"You can renew it (student version) once and after a year you cannot use it anymore. When the student payment expires, and you can't use the student version, are you still going to stay with Spotify?" [Mod 1]*
> *"No. I think will switch to Apple because it's only 99kr and it's 129 for Spotify."*
> *[FGI03]*

Customization is very popular in a variety of areas. In freemium business model, the customization of service is done by creating a customized version of the service offering. It's hard to say whether this strategy is a good choice when it comes to increasing conversion rates. During our interviews, we offered our participants an option to purchase a lighter version of the premium service for discounted price. Answers were ambiguous:

> *"I am not into the middle ground when it comes to Spotify. I don't think that choosing the features to save a few kroner would convince me." [FGI01]*
>
> *"If there're some new features, I need to know about it and figure out whether I want them." [INT08]*
>
> *"No. I wouldn't like the quality to decrease." [INT09]*
>
> *There's still one interviewee that is interested in the customized features.*

> *"It would be interesting to see if there would be an option like - I am not bothered by ads but I really want to download music, or I really want to pick my songs. It would be like - removing ads: 5 DKK, download music: 10 DKK etc."* [FGI04]

Answers mentioned above are answers, that we have received from users that are already paying for a premium subscription. When we asked the same question interviewees with generally low intention to subscribe to any kind of subscription service, whether it is hedonic or utilitarian, the answers were different.

> *"I would consider that. If it is something that really annoys me, for example the ads, and I could remove them, I can imagine that working."* [INT04]
>
> *"But I think I will pay for it if it's only 20 kr."* [INT07]

5.5 Nature of the service

5.5.1 History of accessing the content

Since cloud storage services do not provide any content on their own, they will not be mentioned in this section.

Music and video are content which could have been accessed before we had freemium streaming services. Whereas, in this study, we only discuss the video made by individuals rather than professional teams which means this is a relative new thing compared to music and it started to appear when web 2.0 era came. In this section, video-sharing won't be discussed due to its short history. Lots of interviewees got those content with many channels.

> *"I have had a few CDs, but it was not really played a lot"* [INT01]
>
> *"I think you either bought a CD or you used YouTube."* [INT05]
>
> *"I had the radio or Walkman which was a really old thing. That time I paid for CDs. Nowadays, I can't see why. Because I can listen to them online."* [INT08]
>
> *"That's true. I used to buy CDs."* [INT09]

CD was a main way to listen to the music though some of people only bought a small amount of that. In the meanwhile, people also had the music on other websites or could download music from the internet. Ways of accessing music are summarized in Figure1.

"I would mostly download." [INT11]

"I use YouTube and I also have some CDs on my iTunes. I like a band which is not on Telmore. I have original CDs of them and put the CDs into my phone." [INT09]
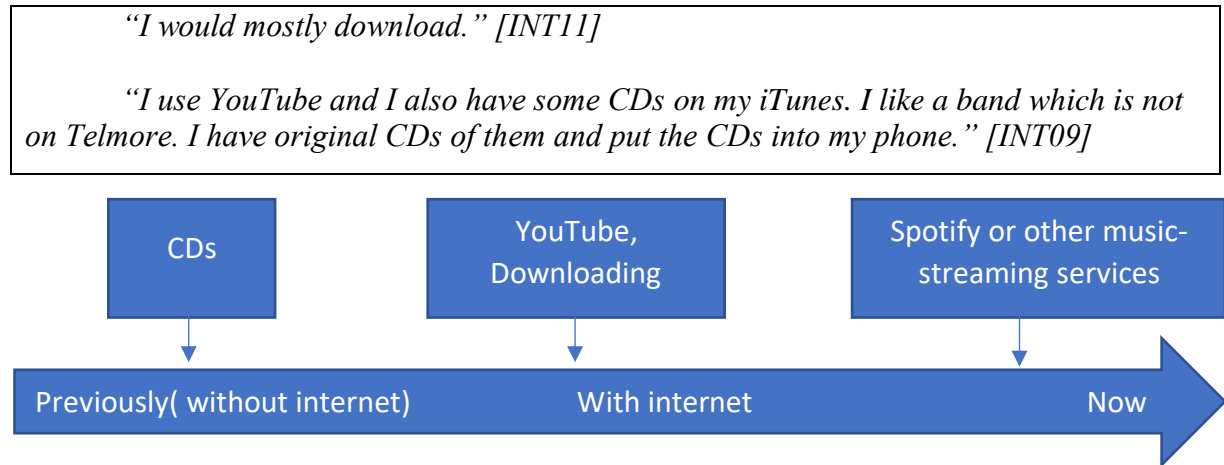
Figure 1 - History of ways of accessing music

In the era of streaming services, user no longer see the value in owning a physical storage unit with the content or to have the actual files in their devices. This further supports the theory, that users no longer care about physically owning a product; they are more interested in purchasing access to this content. Interestingly, even though most of the research participants have used YouTube for music streaming none of them are using it now; even the paying user of YouTube uses different platform to access music. Companies have to design a value proposition unique enough to keep them on the platform when new entrant enters the market.

5.5.2 Functionality

Companies can increase the user conversion rate by providing better services or more functions to premium users (Wagner, Benlian, & Hess, 2014). Users do care about the functions and quality of the service. These factors may influence the purchasing decision. Table 9 presents some premium functions each service offers:

Service	Music-streaming	Video-sharing	Cloud storage service
Premium functions	High quality music; Creating own playlists; Downloading music; Removing advertisements	Removing advertisements; Premium content	More space Sharing with other accounts

Table 9 - Premium functions of different services

Scholars have argued which features of the music-streaming services make it worth to upgrade to a premium version. The assessment involves price, audio quality, frequency of advertising, accesses to music library, convenience and limit on skips, etc (Mies, 2010). All the features mentioned in the assessment, except for price can be classified as functionalities and have impact on customer's subscription. In our FGI and individual interviews, we find that though plenty of users mentioned that their biggest motivation to subscribe music-streaming services is avoid being disturbed by the ads, some other users valued the quality of music.

"... the quality of music is very important for me, because Spotify Premium comes with high quality of music so that would make me stay even if there is a cheaper option." [FGI04]

"I think that premium quality of sound is also good." [INT05]

Some of the research participants, that were already paying members of some subscription service refused saving money in the sake of decreased functionality. They were both related to music streaming services:

"I am not into the middle ground when it comes to Spotify. I don't think that choosing the features to save a few kroner would convince me. In the end it is like 200 kroner difference. I don't think that it is worth it." [FGI01]

"No. I wouldn't like the quality to decrease." [INT09]

What's more, the function of creating customers' own playlists and downloading are important to some of the users.

65

> *"Because you are only allowed to shuffle play and you can't select the song or make a list for songs or save songs. It stops in the middle of songs." [FGI03]*
>
> *"Actually, it is not being able to select my own music." [FGI05]*
>
> *"...and I can just use it for free, and search and make my own playlist. ... I can hear it every day and I can use it offline as well. So, when I am travelling, I can download the music." [INT08]*

Moreover, artists on board also influences customers satisfaction.

> *"For Spotify, I think that not all of the artists are easy to find. For example, the new artists are sometimes hard to find them, but I guess it also depends on the artists because it is the way sell their records." [INT04]*
>
> *"If they can offer all artist that I want to listen to, I think I will switch." [INT09]*

Different from the assessment of music-streaming services, this evaluation is more comprehensive, including almost all the website and applications in this area. In addition, it gives an overall rating but also show what the service is best for. The comparison is made in several aspects – monthly fee, concurrent streams, live TV, original programming and ads (Albanesius, Steele, & Moore, 2019). However, not all of the metrics are suitable in freemium model. When it comes to the video-streaming services, participants did not care about the premium content and most of the users' needs are fulfilled by the free version. If customers already benefit from a free version, it's hard to induce them to pay the subscription fee (Bostoen, 2019).

> *"...because I don't care about the premium content." [FGI05]*
>
> *"I feel that every need that I have, when it comes to YouTube is fulfilled by doing it for free." [INT02]*
>
> *"I don't use YouTube a lot and I can't see what I can use YouTube for. What it more gives when I pay for it or don't pay for it." [INT08]*

Nevertheless, some interviewees showed interest in paying the ads-removal with a small amount of subscription fee.

> *"I might (pay for removing the ads on YouTube)."* [FGI05]
>
> *"That might be more interesting (if removing the ads only costs 5kr/month)."* [INT03]

Comparing different cloud storage services, an interviewee stated that he paid for iCloud instead of Dropbox because the former is more comprehensive. This reflects that the comparison between cloud storage providers is relatively simple. From the perspective of functionality, the main difference is which platforms and what kind of documents this service supports and the ease of use (Celesti, Galletta, Fazioa, & Villari, 2019). The test of cloud storage services suggested that different services are suitable for users with different preferences (Reviews.com, 2018).

> *"It's not only documents, but it's for apps, photos, music. Dropbox is only for documents. Because I only use Dropbox for documents. iCloud is everything."* [FGI02]

People tend to choose the service which is easier to use.

> *"I think it's much easier to use Google Drive than Dropbox."* [INT08]
>
> *"One thing that Google Drive does better is the sharing of files. You don't have to worry about screwing up the document, the format. If I have Work 2003 and my friend has Word 2016, then there would be compatibility issues. It is just annoying. DropBox is better if you are maybe just one or two people using the same document."* [INT05]

5.5.3 Fungibility of the service

No matter which category of service we've explored, it has some competitors in the market. Only when there're some good alternatives which provide better features or discount, people will switch to another platform.

> *"I still use it because it is the biggest on the market and I am not aware of any other service on the internet that provides free on-demand video from so many different creators."* [INT01]
>
> *"I will try to use YouTube to find them, but I will still use Spotify. Just use YouTube if Spotify doesn't have that artist."* [INT08]
>
> *"If there would be an alternative, I would go with the alternative. If there is no alternative but to pay to access that content, then I would pay."* [INT11]

5.5.4 Transparency of the service

Nowadays, users are concerned about the transparency of the service they are using, especially when it comes to their intention to pay a subscription fee:

> *"More clarity on their business model. I can't really get a grasp of how much they are really paying the artists; they are not really that transparent about it." [INT06]*
>
> *"It is similar with YouTube. In the longer videos they prepare you for the fact that ad is coming. If companies would just prepare you for the binding period, then it would be fine. But if it is hidden in the fine print and you have to go through 3 pages of text to find out, that is annoying. Just do it right away and prepare the customer. ...Exactly. Just clear communication, no hidden agenda. I am perfectly fine with paying for a service. I just want to know what I pay for." [FGI03]*

All of the participants in our sample, that have been asked about what they think about their service providers as such, have voiced their concern over the corporate social responsibility and business practices of the freemium subscription services that they are using.

> *"I don't like YouTube as a company and their practices, so I actually feel almost guilty watching videos on YouTube and supporting them." [FGI01]*
>
> *"I actually choose Apple music after the whole Taylor Swift thing. So, I thought for artist, it's better to choose Apple Music because they care more about the artist." [FGI02]*
> *"I know that there are a lot of issues with the way copyright is handled on YouTube. A lot of people do original content and that would be flagged as plagiarized for some reason and it is possible, I have seen, that some that do not make any music themselves would claim that they have made music that is part of some other video and then it has consequences for whoever actually made that video. "[INT01]*

Some of the interviewees has also voiced their concerns about the privacy issues of these companies. They believe that the companies are gathering personal data about their users for further commercial use:

> *"That is also why I am subscribed to Apple and Apple Music. They really care a lot about privacy protection compared to having an Android phone. It is free but you pay in another way. "[FGI02]*
>
> *"I think it's also like a statement that when you submit things, they also figure out what you're thinking all the time. So, it's like you're in their information system." [INT07]*

5.6 Nature of the website

5.6.1 History of the business model

Interviewees said their reason for not paying the video-sharing services was that they got used to their previous business model.

> *"Just because I never really paid for it and I use it mostly on the computer and as I said." [INT05]*
>
> *"I have got used to using YouTube the way it is now (for free)." [INT06]*

YouTube has been known as an ad-supported platform for a long time. Its freemium membership started recently (Sato, 2019). Due to the old business model being implemented for a long time, users have got used to the service with all the features and restrictions as it is now.

5.6.2 First-mover advantage

First-mover advantages and the dominance of a market benefit services a lot. As the biggest video sharing websites in the world, many users started with YouTube which is one of the most extensively used video-on-demand application (Reddy, Ahmed, ManjulaK, & Venugopal, 2019) .

> *"They have pretty much monopoly in the market." [INT09]*

What's more, according to the data comes from Alexa Internet, YouTube is the second-most popular website in the world (Alexa, 2019).

The music-streaming service provider Spotify also enjoyed the first-mover advantage.

> *"I think that Spotify has a lot of advantages being first-movers here and I already have my playlists there so I would not move to YouTube for example." [FGI04]*

As a music-streaming service provider, Spotify has the largest market share in the world (Sato, 2019). Even though many other service providers, that were a source of content before the boom of subscription economy (iTunes before Apple Music, videos on YouTube before

YouTube Music), since they came to the market after Spotify, they suffer greatly from the fact, that Spotify has already captured a major part of the market share.

5.6.3 Policies towards content providers

Some users care about how these platforms and service providers treat the content providers. They want to support the artists [INT06], either in the way of paying for their content or helping them to protect their copyright. An interviewee even switched to another platform because of this reason.

> *"I actually choose Apple music after the whole Taylor Swift thing. So I thought for artist, it's better to choose Apple Music because they care more about the artist." [FGI02]*
>
> *"I know that there are a lot of issues with Spotify not paying the artists enough. ... I know that there are a lot of issues with the way copyright is handled on YouTube." [INT01]*
>
> *"Maybe they have made some policies like Google on YouTube that does not suit their users or the artists but I am not too sure about that. ...They are intervening too much with people who create content for YouTube and they are trying to make better for advertisers." [INT05]*
>
> *"I like that new artists got a chance to release their music on Spotify because then we get a more broad catalogue of music but I have also heard some stuff about Spotify how they pay the artists which I don't really like so it is good and bad." [INT06]*

The "Taylor Swift thing" that has been mentioned by the interviewee is that Taylor Swift, a singer, has removed all of her music from the service and accused that the payment model is unfair to content providers (Swanson, 2013). Regarding the interference to the artist, one of the interviewees pointed to the "advertiser-friendly content" rule which was introduced in 2016. This policy restricts advertising on videos with controversial content, which can be considered non-friendly towards advertisers and their brand (Robertsin, 2017).This rule has been implemented on YouTube after several scandals where racist or otherwise offensive content would harm brands that use the platform to advertise their products and services. Implementation of such policies might affect the attitude towards the service. This will further be elaborated upon in the discussion.

5.6.4 Reputation of the company

Good reputation makes potential users trust a company and tend to subscribe to the service while bad reputation increases users' concern before the purchasing. In the focus group interview, several interviewees agreed that the ethical background of a company was important to them:

> *"I don't like YouTube as a company and their practices, so I actually feel almost guilty watching videos on YouTube and supporting them." [FGI01]*
>
> *"That is also why I am subscribed to Apple and Apple Music. They really care a lot about privacy protection compared to having an Android phone. It is free but you pay in another way." [FGI02]*

Same pattern has repeated when we asked the same question during our individual interviews:

> *"I have heard sometimes that if there are some artists that have criminal record, that they would sometimes remove their music and they also do a lot of collaboration with artists. ... my overall perception is that it is pretty alright." [INT03]*
>
> *"I think that they don't really take their responsibilities seriously, like they don't pay taxes in Denmark." [INT07]*

5.7 Results of analysis

5.7.1 Consumer personas in freemium subscription services

We have discovered, that there are two different kinds of users of freemium subscription services. Each of these groups behave differently and have to approached in a different way. First, there are users with low general intention to purchase. These users are reluctant to pay for anything and try to get as much value from the services without any monetary costs. Second, there are users with higher general intention to purchase. These users see value in the premium features and are willing to pay for them. Price is not the main decision-making factor. As our research uncovers, many of the existing paying users for premium versions of subscription services would not abandon the quality standard that they are used for the sake of better price.

While some users like the quality, some users on the other hand are more interested in monetary value of the service. Based on these assumptions, we have developed two different personas. We believe, that different marketing strategies should be in place for each of these personas in order to maximize user conversion:

Persona 1

Name (fictional): John

Age: 24

Backstory: John is a master student of Copenhagen Business School. He lives in a rented apartment together with two roommates in the centre of Copenhagen. He has a student job at a big pharmaceutical company while receiving student benefits from the government. Even though he is not a big spender, he enjoys quality and is willing to pay for it. John sees value in convenience of subscription services and is paying for YouTube, Spotify and DropBox. Over time, he got used to the features these services provide and would not want to lose them. He has some favourite artists or content providers on the services that he is using, but his loyalty oriented towards the brand, rather than just artists.

Attitudes: Low price sensitivity, loyal to a brand, quality conscious

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Persona 2

Name (fictional): Anna

Age: 23

Backstory: Anna is a bachelor student of University of Copenhagen. She lives in a dormitory on the outskirts of Copenhagen. Anna works part-time as a barista in a café while receiving student benefits from the government. She is not paying for the any service that is not necessary for her daily life. Anna is willing to try out different online services but is not willing to pay for them because she believes that she cannot afford them. Anna find advertisements between songs and videos slightly annoying, but she is not willing to pay full

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membership price to have them removed. She has some favourite artists and entertainers. If the service would start charging Anna for access to their content, she would abandon them due to financial concerns

Attitudes: High price sensitivity, not loyal to a brand or content provider, prone to bargains

As proven by previous scholars, subscription is the most sustainable income for the freemium subscription service. That is why we assume, that the companies we have examined throughout our research will aim for user conversion maximization. It is clear, that the two categories into which we have split the user base have very different attributes. In subscription economy it is common to sell the same product, re-bundled, to different customers at different prices (Anderson, 2006). In order to maximize user conversion among both groups, different marketing and pricing strategies are required. To help companies navigate through different user groups and their consumption profiles, we have developed a following guideline (table 10 and 11)). We argue, that both groups behave differently depending on which freemium subscription service are we considering. That is why we are going to summarize the guidelines according to each type of service (music streaming, video streaming, cloud storage) for each of the user groups:

	Overall willingness to purchase	Price sensitivity	Quality sensitivity	Brand loyalty	Risk of switching to cheaper service
Music Streaming	High	Low	High	High	Low
Video Streaming	Depends on usage intensity	High	Low	Low	High
Cloud Storage	High	Low	High	High	Low

Table 10 - Guidelines for users with high intention to purchase

	Overall willingness to purchase	Price sensitivity	Quality sensitivity	Brand loyalty	Risk of switching to cheaper service
Music Streaming	Low	High	Low	Low	High
Video Streaming	Low	High	Low	Low	High
Cloud Storage	Low	High	Low	Low	High

Table 11 - Guidelines for users with low intention to purchase

Users with high intention to purchase are more likely to subscribe to a service if they perceive, that the value that they would get from said subscription is worth the price. Based on the history of business model, the biggest challenge for this user group lies in conversion in video streaming and sharing services. Even though these users are fine with subscribing to other services, as of now, they fail to see value in paying for something that has historically been free. Truly unique value proposition would be required to convince these users to subscribe. On the other hand, users with generally low intention to purchase show same results regardless of the industry. Their main concern is price so the main strategy to convert these users would be bundling and versioning as elaborated on below.

Companies have to carefully navigate this difficult market landscape. They have to decide which group of the customer to approach and adjust their strategies according to that, especially in the hedonic services. If the service offers only two options – free or paid, they are losing a part of the market that is price-sensitive and cannot afford the full subscription. On the other hand, as our research shows, if the difference between free and paid versions are miniscule, users with high intention to purchase that are quality conscious, will not see the value in paying subscription fee.

5.7.2 Corporate social responsibility

In the focus group interview have started to uncover a new phenomenon, that is relevant to the users' motivation to subscribe to a service. Many of the focus group participant have expressed their concerns about issues such as reputation of the company or how they treat the

content creators. Since this is a new direction, that we did not initially consider, we have decided to explore this issue in-depth during our individual interviews. Results of these interviews have confirmed our findings regarding corporate social responsibility and its importance in the freemium subscription services. While all of the interviewees have mentioned these issues, none of them would stop using a service because of them as long as they are not paying for the service. While it does not decrease the usage, according to our results, it creates a barrier to purchase the subscription. In some cases, in music-streaming category, inappropriate CSR practices have even led users to switch service providers. These new opinions will be further elaborated upon in the discussion section.

6. Discussion

6.1 Value proposition and Customer Conversion

6.1.1 Value proposition

To explore the motivations to subscribe, we start with the value proposition of freemium services. As the customer value hierarchy model described, the bottom layer of customer value in freemium services involved in this research is the functionality. Customers have an intuitive experience and feelings with specific services. During the use of these services, customers evaluate whether the features can satisfy them properly and improve their user experience.

Customer value can be divided into three layers. The first and the bottom layer is the concrete properties and performance of the product. Customers will develop expectations and preferences about the ability of these attributes to achieve desired results. This is the second layer. Customers will also form expectations of ability to achieve their goals based on these results and it's the top layer.

All the attributes of a product affect its functionality. We argue, that users of freemium subscription services are not interested in content ownership. They are using these services because of the multi-device access and integration, possibility to customize the platform or service by, for example, creating playlists and libraries or because of the opportunity to explore new content via curated playlists based on listening and viewing habits provided by the service. Whereas, value proposition of freemium services is not only affected by functionality. Time-limited trial, usage and advertisements are also influencing factors. Functionality and usage constitute the core value of a product and other factors mentioned above are additional services the value of which is attached to the core product.

6.1.2 Functionality and ads removal

Functionality of freemium business model is mainly reflected by the differences between the free and paid version. If the free version is equipped with too many functions, a majority of people's needs can be satisfied with the basic version so few people will subscribe

to the premium version. If the free version isn't interesting enough, users won't consider paying for the premium version and might abandon the service in favour of a service provider with better value proposition. Companies should develop their offerings in such a way, where they leave enough features only available to premium subscribers while leaving only the basics to the free users. The difference should not limit basic functionality features of a service (for example, implementation of limited daily usage) because then there is a risk of not acquiring users even in the free version. On the other hand, if the users satisfy their needs by the free version of the service, they will not be motivated enough to pay the subscription fee.

AdBlock have some negative influence on the conversion rate because it neutralizes one of the key value propositions of the premium versions which is advertising removal. If the users were able to ignore the advertising before, usage of AdBlock decreases the intention to purchase even further. This may be one of the reasons, why YouTube Premium has failed even though the service itself is biggest in the industry. Due to the fact, that historically the service has been available for free with ad support, while the service even allowed the users to skip the advertisements, users simply did not get enough incentive to subscribe to premium plan. That is why (among other reasons) YouTube Premium will be shutting down, returning to the ad-supported service (Sanchez, 2018). However, other literature also proved that users tend to skip ads because they had seen that before or it was long or boring. And providing a skip button can impact user experience by allowing users to skip what they don't want to watch and continue with the content they appreciate (Arantes, Figueiredo, Almeida, & Prates, 2018). There's a trade-off between the profit from ads and the customer experience management. We did not find any evidence of usage of similar software when it comes to music streaming services.

Over the course of our focus group interview and individual interviews we have discovered that different kind of advertising has different effects on users of these services. While we have found, that advertisements are generally creating a disturbance to the usage, two different kinds of advertisements are in place. Commercial advertisements are advertisements made by partners of the hosting company that are promoting their own products and services. Some of the services also run their own advertisements promoting the premium version of their own service. While the former is in place to generate ad revenue, the latter is in place to increase conversion from free to paid users.

Our research clearly shows, that by just providing exclusive content and convenience of ads removal, the freemium subscription model is not sustainable. Relying solely on the initial features introduced to the premium subscribers will lead to increase in churn rates over time. It is therefore important for companies adopting freemium subscription model to constantly innovate their platform and increase the value offering to their subscribers.

Since part of the customers are paying for freemium services while the other part of customers never subscribes, we will discuss their value hierarchy model separately.

For users with generally low intention to purchase, our results are pointing out, that they don't really care about the services' quality, so they don't have any extra expectations towards the products' attributes and performance besides the basic offerings. Light users don't use the service that frequently which is why they don't want to subscribe to the service. After all, once users subscribe to the service, they must pay for it, regardless of whether you use it or not and no matter how frequently you use it. Even heavy users have enough reasons to refuse to subscribe, because their needs are satisfied by basic offerings. As far as music- and video-streaming free users are concerned, accessing the content with the support from advertiser is acceptable for the users, because they have AdBlock to remove the advertisements for free and they can always skip or ignore the ads. For cloud service free users, they may not need larger cloud storage space when they have large-capacity hard disks or similar devices to store documents and files. While advertising in music-streaming cannot be disabled by software extensions, our research shows that advertising is not the main concern for the users in both groups.

Users' attitude about the functionality and advertisements in the free version of a service differs significantly, especially in music- and video-streaming services. We have summarized these attitudes in the Table 12. Users with generally low intention to purchase feel satisfied with the basic version while users with high intention to purchase are willing to pay for extra functionality and quality. Music-streaming subscribers do care about premium content and function. However, since we only reach one of the video-streaming premium subscribers, it seems that he didn't care about the exclusive content and his main purpose of subscribing the service is that he uses the service a lot and he want to remove the ads. He even said that he didn't use YouTube Music though he was paying for it (as a bundle).

		Low intention to purchase	High intention to purchase
Music-streaming	Functionality	Satisfied with free version	Want more features and better quality
	Advertisements	Annoying but acceptable	Annoying and want to remove them
Video-streaming	Functionality	Satisfied with free version	Needs extra functions, does not care about exclusive content
	Advertisements	Acceptable or can skip or have AdBlock	Acceptable or can skip or have AdBlock

Table 12 - Different user groups attitudes towards functionality and advertisement in the free version of service

According to our findings, we summarize the subscribers' customer value hierarchy of the three freemium services in following table. Comparing to the users mentioned above, people with higher level of demand for service quality are more likely to pay for freemium services because they appreciate the premium features and think these services are valuable. Sometimes, even when the content is exclusive, there're illegal copies existing in the internet. With the development of the internet, laws and the improvement in protecting the copyright, it's more difficult for people to find illegal content sources. Paid users may find piracy somewhere, but they can save search cost by simply subscribing the freemium services. By using these findings, we have adopted customer value hierarchy framework to the context of freemium subscription models in the following Table 13:

Customer Value Hierarchy	Music-streaming	Video-streaming	Cloud storage
Customers' goals and purposes	Listening to high-quality music in customized playlists	Watching high-quality videos on demand	Have more space
Desired Consequences in use situations	No disturbances; Self-creating playlists; Music available all the time	No disturbances; There may be some users who cares about the exclusive content	Be able to store more documents
Desired product attributes and attribute performances	Premium functions referring to Table 9.		

Table 13 - Customer value hierarchy of freemium subscription services

Therefore, improved functionality (including premium features in music- and video-streaming services and more space in cloud storage service) is a key motivation for customers to subscribe. While advertising removal plays a critical role to some of the users, depending on the nature of the service and what do the users use the service for, some users do not find it important in their decision-making.

6.1.3 Nature of the service and website

(1) Nature of the service

Throughout the interviews, we have found out which features are valuable to customers and can be monetized. However, monetization is always tricky, especially when people get used to enjoy the services for free.

Since cloud storage service came out later, users do not have any experience with similar service offering from the past, and their perception about the service is built up by the freemium service directly. Companies went into the market first determined the price. The most challenging part of the monetization of cloud storage service is to decide how much free space should be offered in free version. There were several pioneers in cloud storage. Google is the most influential one because it released their application system (Google Docs, Google Sheets, etc.) for individuals in 2006 (SOS Tech Group, 2016). Google Drive was launched in 2012. Google defines this service's business model very clearly – freemium. Then, Spotify and OneDrive founded in 2007 took the freemium model as well. Whenever users want more cloud storage space, they will pay for the service though a lot of individuals are satisfied with the free space.

Comparing to cloud storage services, music- and video-streaming services have longer history, so users' subscription decisions are also affected by the nature of product and websites. In the past, where access to the internet could still be considered a scarce resource, consumers paid for music by buying CDs, paid for videos by purchasing or renting DVDs which means that people did have the perception that they should pay for music and videos. There's no difference between the history of access to music and videos since they're not naturally a free content at the beginning. As online music and videos got popular, people have mostly

downloaded and watched them on YouTube or other websites. During this period, people enjoyed the content for free. Digital piracy disrupted music and movie industry and companies have to look for a different way to monetize content. Nowadays, CDs or DVDs are bought for collection purposes. Recently, music- and video-streaming services have been adopted by many consumers, though customers are more willing to pay for music rather than user-shared videos.

(2) Nature of the website

Interestingly, both music and videos suffered from a revenue loss because of illegal access to the content but when regulations and laws become more complete, people can recall the period that they've paid for music and decided to continue to pay the subscription fee. On the other hand, users still refuse to pay for content, that has been provided to them for free. This may be caused by the nature of the website.

	Stage 3: With freemium services	Stage 2: Without streaming services	Stage 1: Without Internet
Music	Pay subscription fee	Downloading or watching on YouTube (No financial payment)	Pay for physical copies
Video	Use the free version		

Table 14 - Historical consumption stages of music and video content

When the first music-sharing website Napster came out in 1999, global music sales diminished significantly (Cesareo & Pastore, 2014). From 1999 to 2001, Napster was a free platform for users to share music. Due to the copyright infringement of music, the original Napster company was forced to shut down. The brand has survived, because a company called Bertelsmann bought it and transformed its business model into subscription (Hu J. , 2002). Customers only had free music for two years and the provider was closed due to a copyright lawsuit, so these are two main reason that customers tend to pay the subscription fee for music. Firstly, this case has provided experience for companies with similar business model. Spotify, Soundcloud and other music-streaming providers followed the subscription model. There's no company that provides totally free legal music in the market. Secondly, the lawsuit arose people's attention to music's copyright and treatment of artists.

The first video sharing site is shareyourworld.com which is founded in 1997. It's this website paving the way for YouTube (Plesser, 2007). However, this website isn't available

anymore. YouTube have been founded in 2005, and its premium service within music and music videos was first introduced in 2014 (Newton, 2014). This service expanded to videos and some channels gradually. YouTube Red was unveiled in 2015 while the rebranding of this service as YouTube Premium was announced in 2018 (Popper, 2017). From 1997 to 2014, there're 17 years that customers didn't pay for videos. Comparing to the situation within music industry, the gap of paying for the service is too long. Furthermore, videos on video-sharing website are uploaded by users and some of the content is made by the service providers. Viewers believe that the hosts make money by gaining attention from users and advertising, so they don't want to pay subscription fee. Platforms or websites similar to YouTube didn't consider the subscription business model but chose the advertisement business model and use it for a long time. When this revenue model proved not to be sustainable, companies tried to switch to subscription model. It always takes a long time and effort to change an existing business model. Customers need a long time to change their fixed views of the site, learn about the new service and start to pay. Though YouTube tries hard to provide more value to their premium users, it still has a long way to go.

6.2 Customer retention

Since user retention happens after the users subscribes, it is all about activities in the post-purchase part of customer journey and customer experience. Service providers have to keep interacting with their users on a regular basis. In hedonic services, such as music and video streaming, this can be and is currently done by curating custom playlists and recommendations. While Spotify has successfully implemented this strategy, YouTube, as mentioned by some of the research participants, gave in to the push of the advertisers. It is important to avoid such practices where recommendations and user interaction does not correspond with the viewing and listening habits of the user.

6.2.1 Customer experience management

Previous scholars proved that it is more profitable to keep existing customers rather than to acquire new ones due to customer acquisition costs (Tzuo, 2018). Customer retention becomes increasingly more relevant in the freemium subscription context. A sustainable business model needs to maximize life-time value of customers. In freemium business model, a key metric to measure whether it's sustainable or not is the churn rate or renewal rate which

indicates how many customers continue purchasing the service and how many customers quit. CRM and CEM are essential for reducing the churn rate (increasing the renewal rate) and develop customer life-time value. Since CEM is more comprehensive, it becomes prevalent in academic world. Making the whole customer experience better can be broken down into many touchpoints, as displayed in Table 15:

Pre-purchase phase touchpoints	Purchase phase touchpoints	Post-purchase phase touchpoints
Advertising Marketing Testimonials Word of mouth Ratings and reviews Community involvement Etc…	Website Promotions Staff or sales team Royalty programs Etc…	Billing Transactional emails Marketing emails Service and support teams Online help center Etc..
Behaviours: need recognition, consideration, search	Behaviours: choice, ordering, payment	Behaviours: consumption, usage, engagement, service requests

Table 15 - Touchpoints in different stages of the customer journey (Lemon & Verhoef, 2016)

Due to the nature of the business model, touchpoints in the post-purchase part of the customer journey are the most important for customer retention. Since customers are not buying a finished product, companies have to keep engaging with their customers to keep them subscribed. Music streaming services, such as Spotify or Google Play Music provide their users with curated playlists based on their listening habits that change on daily or weekly basis. Video streaming and sharing services are not so good in engaging with their users. As an example, YouTube also has a "trending" and "recommended" section. These sections, however, have been tarnished by questionable practices of the company aimed towards advertiser satisfaction. In order to effectively use customer interaction as a part of interaction orientation and service orientation, companies should carefully navigate and adapt the customer journey to satisfy all the main stakeholder involved in the value offering.

Among all the services mentioned by interviewees during the interview, Spotify has the highest repurchase rate. Some interviewees mentioned that when they were having a party, it was awkward to have advertisements between each song. Though some strategies are not

welcomed by customers, they do produce positive results. Going back to the free version or switching to a different provider would mean that these problems would reappear.

In 2016, a report pointed out that Apple Music's monthly churn rate was 6.4% while Spotify's was only 2.2% (Hassan, 2016). The quarterly churn rate is also decreasing steadily (Hu C. , 2018). Both of companies are trying hard to maintain their customers. Apple Music's strategy, while not being freemium, is to keep as many artists and content exclusive to the service as possible. This may in turn attract some fans of those artists to switch (Hassan, 2016). Spotify was one of the top five customer-obsessed companies. It cares about customers' review and suggestions. The company is trying to capture each chance to listen to customers' feedback about its services and improve the application to meet customers' expectations (Prophet, 2016). In this way, the overall experience becomes excellent so many users are locked-in to continue the subscription.

iCloud also has relatively low churn rate. One interviewee has switched from iOS system to Android System, but he is still paying for iCloud because he doesn't want to lose his files and the fee is not so expensive. On one hand, iCloud works on iOS system makes non-Apple product users excluded. Many potential customers are hereby given up upon by the company. On the other hand, binding the cloud storage service to Apple's physical products is the embodiment of lock-in strategy. iOS users use their mobile devices and computers on daily basis. Due to the closed infrastructure policy of Apple, all the files across all the devices of the user are stored in the iCloud. So even though users might choose to abandon the usage of physical devices, they cannot simply export their data out of iCloud.

Usage intensity and how long the user has been using this service for has been found to have positive impact on customer retention in case of cloud storage services. Concerning the post-purchase phase of customer journey of these services, part of the subscription is integration with external services such as Microsoft Office Online in case of DropBox or directly linking personal e-mail accounts with the storage as in case of Google Drive which is beneficial for customer retention. It might be difficult to engage with users in the same way as with users using any of the hedonic services. That is why the post-purchase part of the customer journey in this case should focus on constant support and relevant updates to the value proposition.

6.2.2 Policies and Reputation

Lots of customers showed their interest in the policies and reputation of a service. Bad or negative issues may not affect customers' usage because even though customers know about the defects, they're not direct stakeholders so the issues do not affect them directly. However, one of the participants said, that she chose Spotify only because it was the student version and the price was lower than Apple Music. After she graduates, she might go back to Apple Music to support her favourite singer, due to perceived more favourable policies implemented by Apple. Other participants also voiced their concerns about issues such as demonetization of content or unfair practices towards artists. To what extent polies influence customers' subscription depends a lot on individual's unique personality. Following table 16 list some policy and reputation related issues of services:

	Music-streaming	**Video-streaming**	**Cloud storage**
Policies to Users and Company Reputation	- Not paying enough to artists - Charge artists for releasing music on Spotify	- Copyright Infringement - CSR issues - Interfering with user-generated content - Advertiser-oriented policies - Movement towards family-friendly content - Privacy Concerns	- Privacy Concerns

Table 16 - Policies and reputation of a service

A majority of our interviewees think music-streaming companies have good reputation and their experiences are mostly pleasant. However, some improvements can still be made. Video-streaming services are encountered with more problems such as copyright infringement, interfering with user-generated content caused by introducing advertiser-friendly policies and incomplete child-protection regulations. Some interviewees said, that it was difficult for the platform to verify whether an audience is adult or not so children or teenagers can't be protected well enough. YouTube is accused of not undertaking corporate social responsibility, mainly because it doesn't pay enough taxes. Furthermore, the mother company of YouTube, Google, has been accused of selling customers data, so YouTube is questioned on the same issue. While

secondary sources reveal data protection issues to be most relevant in cloud storage services, our research did not find any evidence of policy and reputation issues among such services.

Besides, privacy and information protection are common concerns of most of online services. Customers do care about how their information or data is processed but in most situations, when they are asked to answer questions related to these issues, they often give up their privacy in return of using services for free (Sanchez, 2018). From this perspective, its's understandable that though some companies are not doing well in protecting user privacy or even have bad reputation because of the privacy issues, customers still use the company's services and the churn rate is still low enough for a company to survive.

Even though policies and reputation of the service does not affect the usage of free version, it has an impact on intention to subscribe to a service. Even though this finding might be specific to our research sample, we argue that our sample represents the key target group and therefore makes the results relevant. In order to increase customer retention, users would like to know what exactly they are paying for and how is their payment distributed. This is a common practice used by charities and non-profit organizations to increase their credibility, For example, some NGOs released their report of annual expenditure on their websites to show how much money of total donations received have been public welfare or charity events or they display the division of funds directly on their websites. We understand, that since services mentioned in our paper are working towards profit, some of the information has to remain secret. This example is only used to demonstrate how such strategy can be implemented. This approach is not relevant for utilitarian services, such as cloud storage services. This or similar approach, however, could be implemented by freemium subscription services in the entertainment area.

Users do not like, that they do not know where their money go, or if their favourite artists and entertainers are being paid fairly. Similar breakdown could be used by Spotify or YouTube showing how much of their subscription fee is going to the content providers. It can be taken even one step further (especially in case of YouTube, where the current subscription is clearly not working). Users could subscribe directly to a content provider and financially support them. We propose a solution, where users would be able to choose how much they would like to pay and for how long for a specific entertainer. This would be followed by a breakdown showing, how much the creator earns from my subscription. Similar feature is

being used by live video-streaming platform Twitch where users are able to directly subscribe to their favourite streamers. In fact, lack of such feature on the current video-sharing services and platforms lead to launch of a separate service called Patreon. This service dedicated to support content creators. These transactions, however, happen off-the-platform so the companies are missing out on a revenue stream. Furthermore, implementing such strategy would be beneficial for the corporate social responsibility image of the company. Services would be able to promote themselves as companies that care about their content creators and wants to support them and treat them fairly.

Users do not know how much the artists are being paid or what are their terms and conditions. Since these companies are running their business for profit, they cannot reveal all the elements of their business model, because someone else might simply copy it or recreate it. To address these concerns, companies have to carefully consider which data they should reveal to be socially responsible and which data to keep secret to remain competitive.

In our research sample, many of the participants have voiced their concerns over the impact of corporate social responsibility, business practices and reputation of a service on service usage and user conversion. Despite that, these issues do not have direct impact on the usage of the service in its free form. Our research participants know about the issues YouTube Is facing, but they keep using the service in its free form anyway. Activities leading to negative image might in some cases lead to users abandoning the platform, as has been case in our research. In order to increase user conversion, companies have to define clear CSR strategies and way to communicate these strategies to all the stakeholders, namely content providers and users.

One of the new elements that we would like to introduce in music streaming services is partnerships with music social media networks. Some of the users are missing social elements (such as social communication, the message function) from the service providers. Some users have problems finding new artists among promoted world stars. Both of these issues can be solved by one strategy, which in this case is partnership with music social media networks, such as SoundCloud. By doing so, large music streaming services would allow their users to support smaller artists which could be a part of their CSR strategy. Via some technological solution, such as API (application programming interface), users of a freemium subscription music

streaming service (Spotify), would be able to listen to content available on music social media networks (SoundCloud), including tracks from smaller artists and podcasts. At the moment, SoundCloud is only distributing music from artists, that are paying subscription fee on the platform (SoundCloud, 2019).

6.2.3 Switching costs

Our research clearly shows that costs of switching to a different service provider have great impact on freemium subscription services, whether it is positive or negative. High switching costs can effectively prevent customers churn or transfer to other similar service providers. Low switching costs have negative impact on user retention, because the barrier of abandoning the service is so low, that users can make the decision to switch providers at any moment. Different customers perceived the same switching costs differently. For example, some interviewees emphasized the convenience of having their existing playlists on one application, so they didn't want to spend extra time creating new playlists when switching. This switching cost is relatively high to them. However, inspired by discounts, a lot of customers tend to ignore the switching cost because comparing to the financial cost, loss of the custom playlists is not motivating enough for them to stay.

How do these costs affect the service, or if there are, in fact, any switching costs highly depends on the nature of the service. According to our results, we have discovered, that switching costs are high and have high impact on the user retention in cloud storage services. Even though there are currently more freemium subscriptions services in the utilitarian area, we believe, however, that this can be generalized to other freemium subscriptions such as antivirus or home office software.

Switching costs observed in this case relate to familiarity with the service and subscription length. Cloud storage services are used for management of personal files, pictures and applications. Since users appreciate easy access to the files saved in their cloud storage, increased familiarity and user-friendly interface have positive impact on user retention. Switching to a new service provider would reset the psychological familiarity with the service, because the user would have to learn how to use the new service all over again. The user would

have to get familiar with all the features and setup the interface according to their individual needs. The hassle of going through this process is decreasing users' willingness to switch.

Subscription length have been found to have positive impact on user retention in cloud storage freemium subscription services. Longer the user uses certain cloud storage service, more files he/she transfers to the storage box. As the number of files in the cloud storage increases, so does the switching costs of changing to a different provider as well. These companies are intentionally building barriers that would prevent users from switching. Based on our observation, none of the cloud storage services offer an option to simply export the files somewhere else. This means that the users that are considering switching to competition would have to manually transfer all the data from one cloud storage unit to another. The effect of switching costs is further enhanced, if the service is connected to the daily usage of their personal devices, which are being used intensively on a daily basis, such as smart phones. As some of the interviewees have mentioned they stay subscribed to iCloud, service exclusive to devices from Apple running on iOS operating system, even though they do not own a compatible device anymore. Switching cost becomes so high so even decreased functionality due to compatibility issues is not motivating enough to switch providers.

The switching costs in cloud storage services are much higher than that in hedonic services. Users do not want to lose their files which are stored in the cloud. They are not willing to transfer those files to other storage device either due to high inconvenience or risk of data loss in the process. So, for intensive users, that are using such services to store files, that are important and relevant for them, intention to purchase is high. These users do not want to delete the files they already have stored online to create extra storage space, so they are more likely to purchase a premium version of the service which is usually exponentially higher. As an example, Google Drive offers 15 gigabytes of free storage for every user with option to upgrade it to 100 gigabytes for 2 € per month (15 DKK). This upgrade also includes premium features such as option to add family members.

Our findings show, that switching costs at the video streaming and video sharing services are almost non-existent for the current users. Even if there is some loyalty to the content creators, it is not enough to keep the users attached to the service even in its free form. Most of the video streaming and sharing services (YouTube, Twitch, Vimeo) work as a platform. Due

to the nature of this business model, the service itself does not provide almost any content therefore if suddenly the platform would start erecting barriers for the users, our research shows, that users would abandon these platforms with a belief, that their favourite content providers would abandon it as well. There is some content that is provided by the platform, but our findings clearly show, none of the users, that have participated in our research care about this exclusive content.

Our research in music-streaming services show mixed results. This very much depends on how the users consume the value proposition. While some users like to create their own playlists and listen to the music on demand, this feature is not as important to others. Some of our interviewees prefer the playlists curated by the service provider. Music-streaming service providers have then to focus on other elements in their value propositions such as increasing quality and size of their music library. Some of our interviewees have mentioned, that if there would be a new entrant to the market, it would not be able to replicate the quality of service, that, for example, Spotify or Google Play Music provides at the moment. While some of the users would not switch the service provider at all, some would switch only if the new service offering would be exactly the same or better than the one of incumbent service provider.

6.2.4 Interaction orientation

Combining results from literature review and our primary research results, we conclude that interaction orientation is crucial for customer retention. Many of the interviewees throughout the focus group and individual interviews appreciate the customization laid out for them by the service providers. We observe this strategy being successfully implemented by Spotify in the music-streaming industry. Playlists curated by the service provider proved to be of great value to the users due to their large variety and constant updating. There are attempts to implement interaction orientation in the video-streaming services as well. These efforts, however, have been implemented in a way, that does not drive customer retention.

YouTube has been the only video-streaming service mentioned in our research. This shows the immense size and reach of this platform. Despite this, YouTube fails to implement

interaction orientation in a user-friendly way. YouTube also has a section with recommendations or trending videos. As our research participants observe, these sections often do not reflect their interests or viewing habits. As has been pointed out by the interviewees (and often by content creators themselves), videos shown in these sections are often paid for to appear there by advertisers. Distinct advantage of YouTube is its current assumed monopoly in the industry; therefor it did not lead to churn of users.

However, users are growing increasingly apathetic towards the platform. Failed interaction orientation and lack of service orientation has been proven by the platform's own video posted on a platform, YouTube Rewind 2018. This video is released annually by the platform and is supposed to show the most memorable moments from that year. This video has become the most disliked video in the history of the platform shortly after the release (Gerken, 2018) . The video was blamed to be aimed towards advertisers and not towards users or content creators. This means, that YouTube has put strong focus on group of stakeholders while disregarding needs and interests of the other main stakeholder groups, which in this case are viewers and content creators. The content creators that have appeared in the video have themselves criticized its purpose (Brownlee, 2018).

Hedonic freemium service providers must find a balance between approaching different stakeholders involved in the value creation. While undoubtedly, due to the nature of the business model, advertisers are important stakeholders in their network, service providers have to be aware, that their stakeholder network extends beyond them. Service providers have to design their practices to be favourable to all the stakeholders in their network because one does not work without another. Advertisers need content providers for the ad placement, and they need users to watch their advertisements. Content creators need the ad revenue and this revenue is generated by watch time from users. Users want to enjoy content that is created by content creators that are not restricted by harsh policies towards the content of their videos.

We did not find any evidence of individual users needing such customization features from cloud storage services. Service orientation is of great importance for such services. Many of the research participants have mentioned, that convenience and user-friendly user interface is important to them. This should be the key aim of cloud storage services. Companies have to

create user interface that is easy to learn and user friendly. If the user interface becomes too complicated or difficult, companies are risking churn of users from both free and premium side.

6.3 Revenue model and pricing strategies

6.3.1 Revenue model

Before introducing the pricing strategies and how they affect the user conversion and retention rate, it's necessary to clarify the revenue model of freemium services including music- and video-streaming services and cloud storage services. Since hedonic services are similar to each other, both of them allowing users to share media contents, they have almost the same revenue model showed in table 17:

Revenue Source	Value proposition	Pricing strategy	Target Group
Subscription fees and advertisement fees	Premium content and other features; ads removal	Value-based pricing; bundling; versioning	Heavy users who use these services frequently (for example, on daily basis)

Table 17 – Revenue model of hedonic services

For utilitarian services, the revenue model is a little different because of the nature of the services. Compared to hedonic services, utilitarian services don't provide content so it's difficult for them to take the advertising model. Target group of users also differs because the usage of utilitarian services is defined by the intensity rather than the frequency.

Revenue Source	Value proposition	Pricing strategy	Target Group
Subscription fees	More cloud storage space to store documents and files	Value-based pricing; bundling; versioning	Heavy users who use the service intensively (high needs on cloud space)

Table 18 – Revenue model of utilitarian services

According to the revenue model, we will explain the pricing strategy from perspectives such as bundling and versioning. We will introduce these things in detail in following sections.

6.3.2 Bundling

Bundling and different pricing strategies are also useful for driving user conversion, user retention and recurring payments. Bundling in context of our research can be understood in two ways. First, by bundling we mean packaging several accounts together and selling them premium subscription at a reduced price per account and therefore increase conversion rates. By offering bundle deals, companies are able to convert several users at the same time. This approach has proven to be very useful across all industries. Several of our research participants are part of such deal. Another benefit is a lock-in of several accounts/users which will be elaborated upon later in this paper.

We have found evidence supporting bundling and different pricing strategies as a useful tool driving the conversion rates in music/ and video/streaming services. When it comes to any of the music streaming services, whether freemium or not, many of the participants in our research were either sharing an account or buying the subscription in a bundle with several other accounts. Many of the them even used the discounted student version which is only available for 1 year. Due to increasing familiarity with service over the course of the discounted 1-year period, users stay subscribed to the service even after they are not able to use the service for the discounted price anymore. They either convert to full-paying user of the service or choose one of the bundles available to share the costs with others.

Except for user conversion, bundling is effective tool for user retention as well. This is due to lock-in strategy effects. By bundling several accounts together, service providers ensure, that their repurchase is locked-in together with one another. Due to the better price offering, all accounts included in the bundle have to renew their subscription together. If any one of them decides to leave the bundle, the whole bundle falls apart. All the users would lose access to the service and discounted price. While this practice is common in music streaming services, it is underused in other industries. Cloud storage services use this practice in the B2B transactions by creating joint accounts for the whole team. Similar approach could be used in B2C area. Families could share one subscription while each of them would have their own storage box. Besides previously mentioned benefits of lock-in strategy, due to the nature of service, users of the bundle are extremely unlikely to quit the bundle, since cloud storage is connected to their personal files and losing access to these files would be a great loss.

By locking-in several users at the same time, tying them together with a bundle deal, such as couples deal or family package, companies increase the user retention. If one of the users bundled in with others decides that he/she does not want to be a premium subscriber anymore, the user comes to a situation where losses from such outcome outweigh the gains. It becomes difficult for individual user to decide whether to abandon a service and switch to another. Besides this user losing his access to the service, other users lose access to the service as well or their price per subscriber increases. The user that has decided to leave the package will have start looking for a new provider and because this user is now alone, the price terms will not be as favourable as before. As an example, Spotify offers a family package where up to 6 people living at the same address share one subscription plan for 149 DKK per month. The difference is substantial. Spotify Premium for a single user normally costs 99 DKK. This way, the fee per user decreases to approximately 25 DKK which is just 25% of the original price. Since this bundle is restricted by address, Spotify has recently introduced a new bundle, Spotify Duo, which bundles two users regardless of their location for 124 DKK per month (62 DKK per user).

We have also explored an option, where two subscription services would be bundled together for a reduced price. Integration of hedonic services with social media networks is not enough. Research participants during our focus group voiced interest in having several services integrated together in one package. This approach could be especially beneficial in services, that are part of company providing several other services, such as YouTube. Its mother company, Google, has several different services in their portfolio. Integrating them together in one bundle could highly increase conversion rates. This seemed interesting to some of the research participants. However, companies have to be careful which services they do bundle together. If user's general purchase intention towards a certain freemium subscription service is already low, bundling it together with another service might not be a solid strategy. As an example, YouTube tried to put YouTube Premium and YouTube Music in one bundle. Since the awareness of YouTube Music was low (during our focus group interview, only the participant paying for YouTube knew about it), adding this service to the bundle did not increase the conversion rates to a sufficient level. Due to the nature of the service that YouTube provides and is known for, users do not generally associate the brand of YouTube with music

streaming in the same way they do so with Spotify or Google Play Music, even though they widely use YouTube for watching music videos.

Companies do not have to provide all the bundled services themselves. They can instead partner with an external firm. Evidence of successfully integration of a cloud storage service and external service partner can be observed in case of DropBox, which has integrated its system with Microsoft Office. With this approach, DropBox has achieved value synergy where value from both of the services combined is greater that sum of its parts. Due to rising concerns about data security, cloud storage service could take this even further and partner with one of the VPN (virtual private network) providers as a part of their value proposition. Service providers could position themselves as being socially responsible by providing their users with a sense of security.

6.3.3 Versioning

Versioning in the context of freemium subscription services is used in two ways, depending on the industry. Hedonic services, such as music-streaming and video-streaming services apply price versioning. Price versioning is a strategy, where service provider sells their service offering for a different price to different customers with no change to the value proposition. Utilitarian services, such as cloud storage or antivirus, apply product/service versioning. Using this approach, companies are able to modify both price and value proposition based on the individual needs of customers.

The few big customers then provide majority of revenue which then in turn allows the company to provide its service to smaller customers at reduced price while still maintaining profitability (Tzuo, 2018). Recently, we can observe a trend towards versioning coming to the B2C area as well. Netflix, for example, offers its subscribers three different tiers of subscription based on the desired quality or number of linked users to one account. Antivirus companies let customers choose a level of protection suitable for their needs with different price levels. Even though the mentioned examples are a part of subscription economy, their business models are not freemium. When it comes to freemium subscriptions, such as Spotify, the versioning is only in its beginnings. There are always two versions – free and premium. Spotify, at the moment offers several different subscriptions such as Spotify for students or Spotify for families. These

versions, however, only differ in price. The service offering of Spotify premium remains the same regardless of the subscription choice.

Versioning has been found to have positive impact on purchase intention in subscription economy. When applied to the context of freemium subscription models; our research shows, that this strategy has different impact on different users. We have defined two groups users based on their general purchasing behaviour. User with generally low intention to purchase are more inclined towards different versions of a premium service. Users that have generally high intention to purchase and are already subscribed to some subscription service, whether it is freemium or not, have low interest in purchasing a discounted, lower-quality version of the same service. While versioning at hedonic freemium subscription services is only in its beginning, hedonic services, such as cloud storage providers have successfully implemented versioning as a part of their monetization strategy. Users can generally choose a version of the service that best suits their needs and usage purpose.

Spotify is one of the more successful services when it comes to music streaming and their conversion rates. By the end of 2018, Spotify had 207 million active users out of which 96 million (46 %) were paying subscribers with a 36 % year-to-year growth in paid subscriptions (Spotify, 2018). Our research aims to explore, if this number can be increased even further by using versioning strategies. Our research aimed to prove versioning as one of the strategies for user conversion. Even though, as previously mentioned, high premium fit has negative impact on the intention to purchase (Niemand, Tischer, Fritzche, & Kraus, 2015), we argue that too low premium fit is one of the barriers of user conversion. Users do not mind the ads in between the pieces of content on the platform (Punj, 2015). We wanted to explore this concept in the context of a freemium services with hedonic value proposition. These include video streaming and music streaming services.

Spotify was mentioned the most throughout our research. However, we believe that the results regarding this service provider can be generalized across the whole music streaming industry segment. At this time, Spotify, and any other music streaming service only offers two version of its offering – free or premium, which is currently priced at 99 DKK. The only feature available at Spotify Free is the shuffle play (random selection of tracks) with limited number of skips per day. There are also advertisements between the tracks. Spotify Premium, on the

other hand, eliminates the ads, allows users to listen to any track they want, create custom playlists and more. Throughout our research we have tested solution that would lie between these two versions. We have proposed a subscription at reduced price that would include all the premium features, but it would still include advertisements. This way, Spotify would increase the conversion rates while keeping the revenue from advertisements. Same proposal was made for the video streaming services, namely YouTube.

Our research did not find conclusive evidence to support versioning as a valid strategy for music and video streaming services. Participants in our researched have mentioned occasionally that they would consider the middle-level of service, however they were still not comfortable with trade-off that this option would bring. When it comes to music streaming services, our participants found the pay-what-you-want model interesting. However, most of the interviewees (9 out of 13) are paying members and have a strong perception of the service. When they were offered to pay less for lesser quality of a service, they all declined this option despite their initial interest. When it comes to video streaming services, almost all of the participants use the free version of YouTube (only 1 user was paying). When offered a discounted version of YouTube Premium for a fraction of original price, they still declined. YouTube at its current form does not provide enough incentive to pay for their service whether it would be a full subscription or middle-level limited functionality solution.

Our research has also explored a price versioning strategy. Common practice in the subscription economy is to offer customers a time-limited trial for free after which they must pay to continue to use the service. We believe, that this concept can be taken a step further. Our findings show, that offering users discounted, full-featured premium subscription for a limited period have positive impact on the user conversion. This concept has been successfully implemented by Spotify, but we believe that it can be used across all types of freemium subscription services. Cloud services could offer a student package for the first year and charge full price after that. We know, that many universities offer their students cloud storage via external partners. Students usually lose access to this service after they graduate.

6.4 Customer journey innovation

Throughout our research, we have explored all parts of the customer journey on several incumbent companies operating in the freemium subscription market. We have identified the most important touchpoints and the proceeded to innovate them based on the needs of our research participants. We summarize our findings in the table 16 below. This table proposes several innovations to the existing business models of the freemium subscription services, that we have focused on in our research. Specifically, we list new touchpoints, that should be implemented into the customer journey framework of the freemium subscription companies according to their respective category while including touchpoints, that have proven to be most relevant. Proposed new customer journey is not universal and companies have to consider, how to approach each of the two groups of users, that we have defined before.

	Pre-purchase phase (user motivations)	Purchase phase (user conversion)	Post-purchase phase (user retention)
Music-streaming	• Limited functionality • Commercial advertising • Promotion of the premium version • Trial period (30 days)	• Clear communication about funds distribution • Group subscription bundles • Mid-level offering for cost conscious users • Clear terms and conditions • Discounted initial subscription period (6-12 months)	• Curated playlists • Inside information about the most listened-to artists • Exclusive events • Partnership with music media social networks
Video-streaming	• Commercial advertising • Full functionality • No trial period required	• Option to subscribe directly to content creators • Clear communication about funds division	• Curated playlists based on actual viewing habits • Special section for sub-scribers only (non-censored videos, exclusives from creators) • Communication with other users

Cloud Storage	• Limited initial storage space • Limited functionality • No trial period	• Discounted initial subscription period (6-12 months) • Integration with other services (Office, VPN) • Bundle offers (friends and family) • Different versions based on usage purpose (student, home use, personal etc.)	• Option to add-on to the existing package (not a full tier upgrade) • Post-subscription updates and upgrades

7. Conclusion

Based on our findings and discussion, we will start by answering the research sub-questions which will then lead us to the answer to main research question. Due to the responses that we have gathered from our research sample, we have focused on three categories of freemium subscription services: Music-streaming services, video-streaming services and cloud storage services. Even though freemium subscription business model is also used in different industries (for example, antivirus, namely Avast), we did not gather enough data to draw a conclusion outside of the before mentioned three industries.

Firstly, the main motivations of subscribing to the freemium subscription service are functionality upgrades and ads removal. Customers tend to pay the subscription fee when their needs can't be satisfied with the basic version. There is a relatively high demand of premium functions, such as high-quality music or videos and more cloud storage space. Intensive ads are negative features which are not appreciated by customers and have positive impact on the conversion rate. The development of AdBlock reduce the perceived value of the ads removal feature as a part of value proposition and has become a barrier of attracting more subscribers, especially in the video-streaming market. Our research has proven that high premium fit (low difference between free and paid version) has negative impact on user conversion regardless of what industry is the company in. If the needs of a user are satisfied by a free version, the user do have enough motivation to subscribe to a premium version of a service. The differences between free and paid versions influence users' perceived value of premium service so it's necessary to keep a balance between them. Corporate social responsibility, business practices and reputation of a service provider also have impact on the intention to purchase a subscription plan. While not preventing usage of the free version of a service, we have confirmed, that concerns about transparency of the freemium business model are one of the barriers of user conversion, too.

Since the costs of reproducing and distributing of online services and products are very low (Bakos & Brynjolfsson, 1999), freemium services often use customer value-based pricing strategies. Price discrimination is adopted to meet as many customers' needs as possible. Student price is an example that price discrimination can be used to relieve the price-sensitive

users' pain and increase the conversion rate. Bundling and versioning are two main strategies which may lock in the customers by increasing switching costs. Our research has shown, that while versioning is efficient strategy for cloud storage providers, music and video streaming services would not benefit from this approach. Bundling and converting several users together has been proven to be effective strategy across all three of our focus markets.

Lock-in strategies work well in increasing the premium user retention and recurring payments. Retention rate can also be strengthened by implementation of principles from interaction orientation and service orientation. Service providers have to increase switching costs to increase user retention, especially in the hedonic services. While switching costs remain high in utilitarian services, our research demonstrates, that switching costs in hedonic services are low. Loss of access to playlists or favourite artists is not convincing enough to drive user retention. While our research participants have generally low price-sensitivity, they demonstrate willingness to switch to cheaper service provider with identical value proposition. This disproves previously established theory about switching costs and loss aversion. Service providers have to constantly increase the quality of their service which would make it difficult for new entrants to match the value proposition of existing service providers.

This then leads us to answer to our main research question: **How to make the freemium subscription-based business model sustainable in a long-term?**

Our research shows that the user conversion and user retention efforts should be directed at different audiences in a different fashion. What works in one industry might not necessarily work in other. Every company will have different applications of our framework so some adjustments will have to be made according to the needs of each individual service. Pre-purchase phase describes the period during which the user experiences the free version of a service and trial version of the premium version. Purchase phase describes the moment when the user decides to subscribe to a service and pay for it in some shape or form. Post-purchase phase considers all the user retention efforts.

Users nowadays are concerned about how the artists and content providers are treated and compensated for their efforts. That is why we propose change in the way users subscribe in video streaming services. YouTube and its subscription model do not work in its current

state. At its peak, YouTube Red, the predecessor to YouTube Premium had only 1,5 million subscribers (Sanchez, 2018) which is very small number considering size of the platform. As mentioned before, users simply do not see value in subscribing to this service. That is why we propose a new subscription model for video streaming services. Users would be able to directly subscribe to the content creators while the service or a platform would keep a cut of the subscription fee. Benefits of such approach are twofold. First, by clear communication about how the subscription fees are divided between the service provider and content creator, company can posit itself as socially responsible. Second, this subscription system would drive quality on the platform or service. Content creators would be driven by increasing their subscription counts which would increase the quality of content that they provide.

Thanks to the rapid evolution of information technologies, cost of data and data storage is very close to zero (Anderson, 2009) . This gives cloud storage service a lot of flexibility when it comes to pricing strategies. We propose, that companies should design several different versions of their service based on who is using them and what for. Even though some steps towards this direction has already been made, we believe that it can be taken even further. Student versions are one way of converting new users. Allowing users to purchase the premium version of a service for a discounted price for a limited period of time will increase familiarity with service. Furthermore, due to the nature of service, lock-in strategy principles are in place. If users store their files in the cloud over the course of this discounted period, they are more likely to purchase the service for full price after the discounted period has ended. Same advantages are in effect when it comes to friends and family packages. Our research shows, that this strategy is very successful in music streaming services and we believe, that it will be useful in utilitarian services as well.

8. Limitations and future research

Main limitation of our research lies in the sample we chose for this research. Even though our sample is geographically and culturally diverse with participants with different backgrounds, all of the research participants are students. If the research would be replicated with a different demographic, results might be slightly different. Quantitative research, that would help to explaining certain aspects of our research (optimal price point, which features are most valuable etc.) in more depth is also missing and is one of the opportunities for future research. We argue, however, that the research sample that we have used fits the target market of these companies well.

Our research introduces several new concepts that have not been explored by extant literature. Concepts, such as importance of corporate social responsibility and its impact on user conversion or integration with other platforms have been incorporated in conclusion of our research. To confirm importance of these new approaches, more research is necessary. Future research should explore areas such impact of the reputation of the service provider, policies, CSR and their impact on the conversion and retention rates of both free and paying customers. In order to better generalize results of this research, new research with a different and bigger research sample would be beneficial. Future researchers should test the theories that we have presented in our paper on a demographically different sample, especially when it comes to age group.

9. Implications

9.1 Theoretical implications

Our research has contributed to understanding of switching costs in subscription economy and applied it to the context of freemium subscription business model. While to some extent, switching costs are present, we have partly disproved the impact of the switching costs, especially in the hedonic services such as music- and video- streaming. We have proposed several suggestions on how to enhance switching costs in this context and increase user retention. We have identified two profiles of users of freemium subscription services based on their consumption habits and behaviour. Each of these two groups have to approached in a different way. We have divided them based on their general purchase intention and adjusted the applications of theory according to that.

Furthermore, we have developed some new theories in both user conversion and user retention context. We have created a foundation of a theory, where corporate social responsibility, reputation and transparency can be directly linked to user conversion. By using fundamentals of versioning and bundling theories, we have developed an application for both hedonic and utilitarian services and how can this approach be used to lock-in users.

9.2 Practical implications

According to our findings, we suggest companies think about the freemium subscription business model carefully before they decide how to adopt. It's difficult to change the business model when customers already get used to the old one, which has proven to be true in case of YouTube. Companies that adopt freemium subscription model must take customer as priority, try their best to create and improve the value of subscription. Different lock-in strategies help to increase the possibility of repurchasing of various services. Approaches such as bundling and versioning on both price and product part can be used to achieve lock-in effects. Companies have to take into consideration, that while one approach might work for one industry, it might not work for the other. Before applying such strategy, they have to consider what kind of product or service are they offering, to whom, and how did their business model look like in

the past. Decreasing value for existing users for the sake of developing new bundles and versions of the same service might be dangerous and lead to churn of users.

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Appendix A – Focus Group and Interview Transcripts

Due to scope of the transcripts from both focus group and individual interviews, we have uploaded all the materials to the cloud storage box. This folder contains video recording of our focus group interview as well as its transcript, together with transcripts from 11 individual interviews. As mentioned before one interview (Interview #10), has been disregarded due to its low relevance to our research. All the materials can be found by clicking on the following link:

https://drive.google.com/open?id=1v3Gk7bYV8OfZL_wUpCeQ12XDXKeDACx_

Appendix B – Individual Interview Preparation

1.   What subscription services are you using, or have you used? Which ones do you pay and which ones you don't?

2.   Why do you pay for … but never pay for…?

3.   You have mentioned that you are not paying for xxxxx. Would you consider paying for this service if it would be bundled with ONE more subscription service, for example xxxxx?

4.   Nowadays, we can access content online, but before the internet era, how did you access to this content?

5.   Why do you choose … rather than…?

      a.   iCloud vs Dropbox

      b.   Spotify vs Apple music

      c.   YouTube vs Netflix

6.   How long have you been using xxxxx for?

7.   Have you changed your services providers? If Yes, why did you switch from… to…?

8.   If no, If there would be a new service, with the exact same features as xxxxx that you pay for now, but would offer you 10% better price, would you switch?

9.   What would make you switch to a different service provider?

10.   What if xxxxx would remove some of the premium features and decrease the price of a subscription? Keep in mind that the full premium option will remain available. Any thoughts? (in case of the service they are not paying for)(same question for the service they ARE paying for)

11.   How do you feel about …?

      a.   Do you like it?

      b.   What's the best/worst feature of…?

      c.   Do you have any bad experiences with…?

12.   What do you think about the company? Can you use several words to describe the company itself? Their reputation, the way they run their business, their impact on the industry etc. Positive and negative, (if you have no idea, we can skip it.)

13.   If you would be able to give one suggestion to the company, what would it be?