

Apple VS Spotify: How can Spotify Level the Playing Field

By Jianing Zhu

Executive Summary	2
Background	2
Spotify Background	2
Founding and Growth	2
Acquisitions and Partnerships	2
Conflict with Apple	3
Apple Background	3
Apple	3
Apple Music	4
European Union Commission Background	4
European Union Competition Law	4
European Union Precedent Cases	4
Industry Overview	5
History of Music Streaming as a Service	5
Business Model	6
Spotify	6
Apple Music	6
Bargaining power of suppliers	7
Partnership management	8
Network Effect	9
Technological resources	9
Organizational structure	10
Industry rivalry	12
Antitrust Analysis	12

Executive Summary

Spotify Technology S.A faces a serious disadvantage against Apple Music while operating on the iOS platform. Apple charges Spotify services a 30% markup on any subscription coming from iPhone users, threatening Spotify's long-term stability in the music streaming industry. In this report, we will explore a strategy recommendation to protect Spotify's market share, as well as several other alternative strategies Spotify can employ. The primary strategy is to frame Apple's current practices as anti-competitive and bring an antitrust litigation to the European Union under Article 102 of the Treaty on the Functioning of the EU. This strategy leverages the strong antitrust ruling history of the EU, but couldn't be enforced in other large markets such as the United States. The alternative measures Spotify can take are bringing the Antitrust case to the United States, leaving the iOS platform to focus on a more dominant position on other devices, or to pursue a mutually beneficial contract with Apple.

Background

Spotify Background

Spotify Technology is a media services provider that operates an audio streaming platform that provides music, videos, and podcasts. Spotify has both a "freemium" service and a premium service. The "freemium service" generates revenue through advertisements, whereas the premium service generates revenue through paid subscriptions. As of April 2020, Spotify had 286 million overall monthly users and 130 million paid subscribers. 70% of Spotify's revenue is paid out in royalties to the rights owners of the various media it's customers stream. Spotify's legal headquarters is in Luxembourg, it's operational headquarters is in Stockholm, and it's listed on the New York Stock Exchange as "SPOT".

Founding and Growth

Spotify was founded in 2006 by Daniel EK and Martin Lorentzon in Stockholm, with the app officially launching in October 2008. Spotify entered the UK market in 2009, and the US market in 2011. In March 2011, Spotify had one million paying customers. That number doubled by September. By September 2016, Spotify had 40 million paying subscribers globally and nearly 100 million total users. This strong and steady growth teed the company up for an IPO in 2018, which resulted in an opening stock price 25% above the reference price.

Acquisitions and Partnerships

Over the course of the last 10 years, Spotify has made quite a few notable acquisitions and partnerships. Spotify has acquired a number of analytics companies (Echo Nest, Seed Scientific,

Sonalytic, and Niland) in an attempt to improve and innovate it's recommendation systems and to help with the future content acquisition. It's also made a number of notable acquisitions in the content space, acquiring notable podcast networks

The Ringer", "Gimlet Media", "Anchor FM", and "Parcast". Outside of acquisitions, Spotify has made a number of meaningful partnerships that differentiate it from its competitors. They have partnered with Sony to incorporate the platform into all PlayStations. Spotify also partnered with Microsoft after they had announced the end of their streaming service, this transferred all those users to Spotify. Near and dear to many students' hearts, Spotify also partnered with Hulu to provide a low cost bundle targeted to students.

Conflict with Apple

Spotify has had a conflict with Apple for nearly the entirety of its existence, but throughout the years those issues have mounted and piled on to create the situation the companies face today. In 2011, Apple required the use of their Apple Billing System (IAP) for all in-app purchases and upgrades, at the tune of 30%. They also prevented app developers from including any links to upgrade off the app, essentially making it much more difficult to upgrade their service. In that same year, Apple would not give "Siri" functionality to Spotify, reducing Spotify's access to voice search. In 2014, Spotify switched to the IAP system after pressure from Apple, and as a result, increased its price from €9.99 to €12.99. When Apple launches the Apple watch, they refuse to allow Spotify from developing a watch app. In 2015, Apple launched Apple Music at a €9.99 price point as the company does not need to pay a 30% fee like Spotify does, in response, Spotify no longer uses Apple's Billing System. Over the course of 2016, Apple rejected Spotify's phone app multiple times, increased app store guidelines, and rejected the proposal of an Apple watch app again. Over the next three years, Apple keeps tightening guidelines specifically around promotion and payments, but in 2019 Apple breaks it's own promotion rules. In response to this laundry list of affronts, Spotify files a case in the European Commission claiming that Apple denies consumer choice, it imposes a discriminatory tax on competitors, and Apple's actions have violated the law.

Apple Background

Apple

Apple inc is a multinational technology company that spans hardware, software, and media services. It was founded in 1976 by Steve Jobs and Steve Wozniak as a computer company, overtime Apple evolved and began to create software products. As of 2020, Apple sells hardware ranging from headphones to smartphones to computers, sells software ranging from operating

systems to professional software, and has now entered into the media space with Apple Music and Apple TV+.

Apple Music

Apple Music is a music radio and streaming service developed and launched by Apple, Inc. It is now Spotify's main competitor ever since its release in June 2015. Unlike Apple music's former platform, iTunes, Apple Music is currently having a greater success rate for its ability for customization and attainability of new music. Some strengths of Apple Music are its ability to provide customers with exclusive releases of popular artists that are not available on Spotify. Apple Music users are also able to merge their current iTunes library to the music that they are streaming to make one, comprehensive place for music streaming. However, Apple Music does have some weaknesses when compared to Spotify. Unlike its competitors, there is no free version of the streaming platform, although there is a free three-month trial period, but the user must commit to the service after using it. There is also not a music download option on desktop, unlike Spotify. The cost of the service is lower than Spotify, €9.99 per month. There are different opportunities for Apple Music including the expansion of their current music selection, and allowing for a wider range of people to use their products. The single threat to Apple Music is Spotify, only if it is able to gain access to a more extensive selection of music. Apple Music has over 60 million paying users and has already surpassed Spotify in paid user count in the US.

European Union Commission Background

The European Commission is responsible for legislation, implementing decisions, and enforcement. It was established in 1958 and is made up of 27 commissioners, one from each member state of the European Union. The European Commission is responsible for applying "Competition Law", the EU's antitrust laws, and has applied that law many times.

European Union Competition Law

The EU's competition law is built to regulate anti-competitive practices by companies and to prevent the creation of cartels and monopolies that would be against consumer interests. The first application of the law occurred in 1964, and the law has been used consistently since then.

European Union Precedent Cases

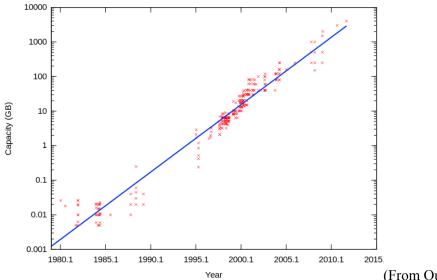
There have been a number of precedent cases that apply under article 102, but a particularly relevant case is *Microsoft Corp V Commission*. The two main similarities are that this case 1. Investigated an American Company in the EU, and 2. It was a similar abuse of dominance claim. The facts of the case are that two seperate companies, Novell and Sun Microsystems, complained that Microsoft was abusing its position as market leader to create an unfair advantage for itself.

The case resulted in a massive judgement against Microsoft, a fine of nearly half a billion Euros and required that Microsoft create a version of windows without Windows Media Player.

Industry Overview

History of Music Streaming as a Service

The industry had its roots in the late 90's, its creation supported by recent advances in internet and internet-connected hardware. Napster was the first firm that successfully connected the internet with the music industry. Before, the standard was to own physical media such as CD's and cassette tapes. But as computer storage and internet speeds improved, having music stored digitally became possible.



(From Our World in Data, 2016)

CD's are composed of lossless music, meaning the file is uncompressed and very large. Albums featuring only dozen of songs could be a couple hundred megabytes in size. With the increasing amount of personal hard drive storage on computers and new data compression formats like MP3, consumers could both house a great deal of music on their computers and stream high quality music directly from the internet.

Napster allowed for users to upload and file-share media they owned and the Apple music store was introduced as an online marketplace for music and music uploads in the early 2000's. However, these early services were ridden with piracy, drawing in lawsuits from both record labels and artists. The next wave of innovation came with algorithmic recommendations and music filtering. Websites such as Pandora and Last.FM originated the idea of "freemium" music streaming along with the innovations. Music was being paid for by advertising, much like how radio stations turn a profit. However, unlike the radio, these sites allowed for users to tailor the music to their own tastes and preferences.

Finally, these advances led to the creation of Spotify in 2009, combining the best of the previous services into the model that most modern streaming services use today. The current market is still growing in customer base, with over 255 million paying subscribers worldwide in 2019. The big players in the market are Spotify, Apple Music, Pandora, Google, Amazon, Tidal, and TenCent. Recently, there has been a trend of smaller players in the market being pushed out by Apple and Google's growth, but Spotify has held steady at the top of the list.

Business Model

Spotify and Apple Music rely on two different business models and have connections with three main actors: record labels, customers and third parties.

Spotify

Customers can choose between a free or a premium subscription: "they get basic features at no cost and can access richer functionalities for a subscription fee" (Kumar, 2014). The richer functionalities offered by Spotift consist of: music without advertisements from third parties, the possibility to download music and listen to it without internet access, a higher audio quality, the possibility to choose which track to play on smartphone devices, an unlimited number of skips for tracks. Basic functionalities given for free comprehend listening to music with ads on all devices.

This combination between "free" and "premium" gains a large user base without spending a lot on advertising and sales agents. Industry data indicates that 98 percent of Google's Play Store revenue and 95 percent of Apple's App Store revenue come from freemium applications, making freemium a robust business model of the digital age (Holm and Gunzel-Jensen, 2017). In this way, the first impression will probably turn users into loyal customers.

One disadvantage of freemium models is that they require a fast-growing user base to be sustainable.

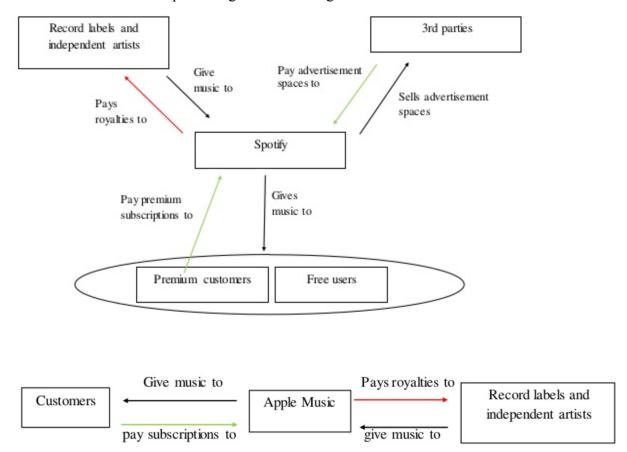
Apple Music

Instead of advertisement revenue from third parties, Apple Music gains revenue directly from paid subscriptions of Apple Music users. The company management refused to adopt a freemium strategy as a sign of respect for the work of the artists, which was considered to be undervalued if given for free to users. "Freemium companies are building an audience on the back of the artist" (Statt, The Verge, 2015).

Apple Music and its paid subscription only business risks to stop its growth under the captivating free offer of Spotify, but on the other hand, doesn't have to sustain the costs to maintain a large free user base.

The two companies have a different view of music: Apple Music gives access to paying people only to protect artists' work and rights, while on the other hand, Spotify strives to keep its freemium model competitive and increasingly profitable to demonstrate that artists can make profits without charging a fee to all the users.

We can summarize the steps through the following chart:



Bargaining power of suppliers

Suppliers can be divided into two categories: The big record labels, the independent artists and the small record labels. Universal, Sony and Warner are called "the big three" of the music industry since they possess the largest market share. These three record labels together have around 70% of the total market share of the music industry. However, digital streaming services

have become the biggest source of revenues as the drop of the 91% revenues coming from CDs since 2000 to 2016 in the United States music market. Therefore, Spotify and Apple Music have some bargaining power with this music supplies' oligopoly. Indeed, record labels pay Spotify so that their artists' songs appear in the playlists most followed by users.



(Source: Media report, 2016)

Partnership management

The two companies use different types of alliances: vertical alliances with suppliers are preferred by Apple Music as it has a stronger economic position compared to Spotify. Spotify, as a relatively young company, is not able to leverage particularly significant financial reserves compared to the well-established competitor company. It prefers to rely on horizontal alliances based on sales of complementary goods and services.

Spotify has developed a series of relevant partnerships to expand its base of customers. The most famous are the ones with Facebook and Twitter which enables users to share music with social media friends. "Social network websites allow quick and practically free product distribution access and penetration in new markets and sharp increases in product awareness" (Holm and Gunzel-Jensen, 2017). Other relevant partnership are the ones with: New York Times that bundles Spotify Premium with digital newspaper subscriptions (Hu, Forbes, 2017); social network Tinder (source Spotify Press, 2016); car manufacturer Ford; mobile operators to preload the app on the handsets; Qantas airlines (Hosie, The Independent, 2017); Uber; PlayStation.

Apple Music is not specialized in alliances with the distribution part of the value chain. Its music streaming service is implemented in cars using the CarPlay system and on some airlines but

since network potential customers is constituted by the large Apple users group, it doesn't need additional distribution channels. "In its original deals with the music labels two years ago, Apple had agreed to keep less money from the music industry than rival Spotify, as the tech group looked to position itself as the artist - friendly streaming service" (Nicolaou, Financial Times, 2017). Apple Music seeks vertical alliances with record labels by paying them more than the rival. Spotify pays about 0.006 cents per stream while Apple pays about 0.012 cents per stream. Apple Music even pays royalties to the artists during users' Apple Music free 3-month trial.

Network Effect

From the demand perspective, buyers enjoy being part of a network with a larger number of fellow customers. This is caused by the social dimension of the platforms that allows users to see which music tracks other users are listening to, and to interact, by giving advice or sharing their favourite music. So, the more users on the platform, the more value creation, the more new users are attracted. Based on the low cost subscription fee, it wouldn't be difficult nor costly for users to switch to a new music streaming service. They would only need access to the Internet and small amounts of money per month.

Spotify would result in more damage in case large groups of customers decided to switch to a competitor since it doesn't have any other profitable asset besides its music streaming platform. Apple Music could still keep competitive by having a mother company such as Apple Inc. covering its back.

Technological resources

Apple Music has a specific and unique hardware combination since Apple Music gets automatically inserted in the portfolio of apps of the customers. Selling devices with Apple Music pre-installed is a type of bundling strategy already for example with WIndows operating system and Internet Explorer as a browser, and it proved to be very effective in the past.

Spotify doesn't rely on this hardware combination by being a merely service software producer.

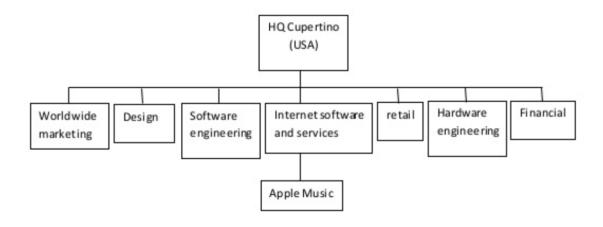
Apple Music				
	Value	Rarity	Imitability	Organizational
Financial resources	V	v		
Physical resources	v	v	v	v
Technological resources	v	v	v	V
Organizational resources	V	v		
Product portfolio	v	v		
Innovation and creativity resources	V	v		
Reputation and brand power resources	V	v	v	V
Human and managerial resources	V	v	v	V
Network resources	V	v	v	V
Marketing capabilities	V	v	v	V
Partnership management	v			

Spotify		3=	70	
	Value	Rarity	Imitability	Organizational
Financial resources	V			
Physical resources	V			
Technological resources	v			
Organizational resources	v	v		
Product portfolio	V	v		
Innovation and creativity resources	v	v		
Reputation and brand power resources	V	v	V	V
Human and managerial resources	V	v	V	V
Network resources	v	v	V	V
Marketing capabilities	v	v	V	V
Partnership management	V	v	V	V

From the VRIO analysis, Spotify compared to Apple Music has a sustained competitive advantage for what concerns its partnership management capability. While in areas like physical resources and technological capabilities, Apple prevails on the leader with its Apple Store and its hardware combination. Apple Music also has a competitive advantage in its financial resources.

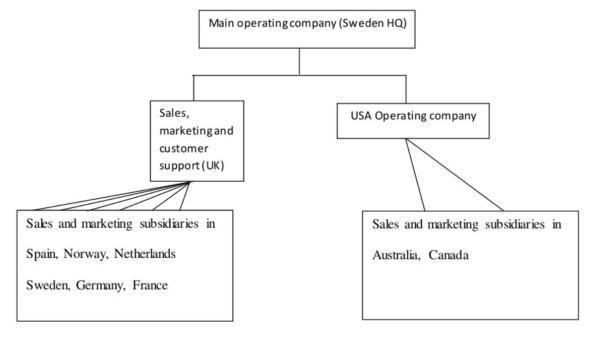
Organizational structure

Apple Music organizational structure is situated within the "Internet software and services" function of Apple Inc. The structure is hierarchical and divided by functions.



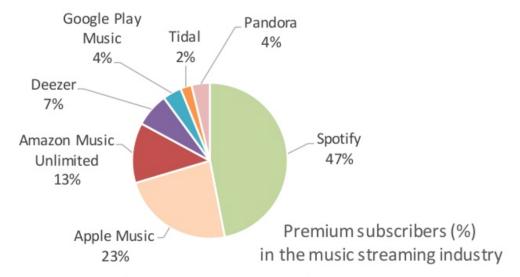
(elaborated from Apple Annual Report 2016)

Spotify's organization structure can be summarized with the following structure:



(elaborated from Spotify consolidated financial statement 2016)

Industry rivalry



	Premium subscribers (in million)
Spotify	60
Apple Music	30
Amazon Music Unlimited	16
Deezer	9
Google Play Music	5
Tidal	3
Pandora	4.86

(source Reuters, 2017)

Antitrust Analysis

Article 102 of the Treaty on the Functioning of the European Union

The 102 TFEU aimed at preventing undertakings who hold a dominant position in a market from abusing that position. The core role of 102 TFEU is the regulation of monopolies, which restrict competition in private industry and produce worse outcomes for consumers and society.

Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.

Such abuse, in particular, consist in:

- (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;
- (b) limiting production, markets or technical development to the prejudice of consumers;
- (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

First, Apple is in a dominant position in the relevant market. The EC found Google to be dominant in the market for "app stores for the Android mobile operating system". By analogy, Apple might be found dominant in the market for "app stores for iOS". As with many of the current probes into the conduct of tech giants, this case is about vertical integration. Apple can only restrict Spotify because it not only competes with the music streaming service (through Apple Music) but also owns the primary distribution channel through which Spotify reaches its customers (the App Store). The theory is that Apple wants to leverage its market power from the app store market into the music streaming market.

Second, Apple abuses its position. Apple routinely delays or rejects updates of the Spotify app. Spotify has been limited in the ways it can communicate with its users through the app. For example, it was prohibited from promoting a low-cost three-month trial—while Apple Music does hold similar promotions. Further, Apple does not allow for integration between Spotify and Siri (the voice assistant) and HomePod (the smart speaker).

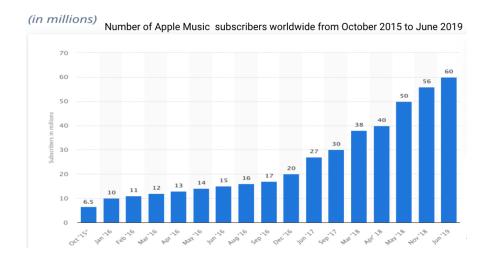
Apple also imposes a 30% commission fee on Spotify subscriptions through its App Store. This fee is discriminatory, as Apple Music does not have to pay it. Moreover, Spotify is not in any way allowed to direct users to its website in order to avoid the fee. This leaves Spotify with two choices: either use Apple's in-app purchase feature (IAP) and pay a 30% fee, or turn off IAP, making it a lot more difficult for iPhone users to subscribe to Spotify. Spotify chose the second route in May 2016. Spotify turned off IAP, this means upgrade to Premium through the App Store is no longer allowed. After that, Apple starts an intensified pattern of Spotify app rejections - and threatens to remove Spotify from the App Store.

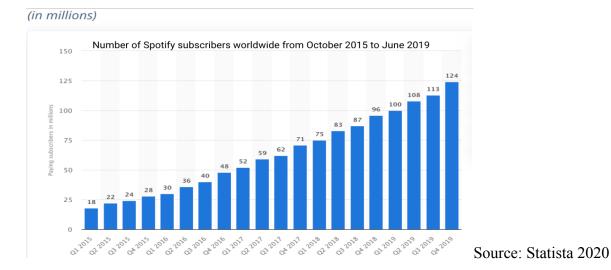
Margin squeeze refers to situations where a vertically integrated undertaking uses the price it charges in the upstream market to drive competitors out of the downstream market. This description does align with Spotify's allegations: Apple levies a high commission fee in the upstream App Store, which depresses Spotify's profitability and competitiveness in the

downstream music streaming market. However, the EC will only protect a downstream firm's profitability if it is as efficient as the vertically integrated firm it competes with. One way of testing this is asking whether the downstream division of the vertically integrated firm would be profitable if it were charged its own upstream price. The question is thus: would Apple Music's €10 subscription model be profitable if it had to pay its own 30% commission fee? If not, Apple's upstream price is too high compared to its downstream price, and has to be adjusted.

The idea of online platforms as essential facilities has been gaining ground. Commissioner Vestager even stated that we may "need to rethink the notion of essential facilities in the digital age". The EC could consider the App Store an essential facility, to which Apple should provide competitors access; if it doesn't, it engages in a "refusal to supply". Apple was involved in a "constructive refusal" as it offered supply on unreasonable terms, demanding 30 percent of all purchases made in the iOS store.

In sum, Apple's various restrictions of its app deny consumers true choice, which puts Spotify at a competitive disadvantage.





Alternative Strategies

Spotify has a number of strategic alternatives they can pursue in order to better position themselves against the antitrust behavior of Apple and within the music streaming ecosystem. As Spotify takes action against the controller of the iOS platform, it is important to consider both the relative strengths of the Spotify service and the operational benefits that Apple Music enjoys. The strategies that the firm could pursue lay in the areas of legal, strategic positioning, and contractual action.

A clear course of action for Spotify is to seek legal recourse against Apple on an anti-trust basis. Given a large amount of evidence suggesting that Apple unfairly wielded the power of the iOS platform, Spotify has a well founded claim against the tech power house. A key initial consideration that Spotify must make is where to pursue antitrust litigation against Apple: should they litigate in the US where there is a more significant market or in the EU which has more favorable regulation. Some tradeoffs to consider here are the regulatory behaviors of both regions, the likelihood of winning (and more importantly, profiting) the lawsuit, and the strength of Spotify's argument. Another reality that Spotify must contend with is the legal power of its potential contender in this situation - Apple will have a relentless and costly legal team at its disposal should Spotify pursue legal recourse against the owner of the iOS platform.

Another crucial consideration that Spotify must consider before charting a path forward is its favorable positioning in its industry. Importantly, the Swedish company is likely the best streaming service on the market: Spotify is objectively the stickiest music streaming service and utilizes best-in-class recommendation and social systems on its platform to keep users engaged and paying. The strength of Spotify affords it a key strategic card - it could completely leave the iOS platform to focus on a more dominant position on other platforms. As of 2019 Spotify was

the dominant paid music streaming service on the Android platform. Android accounts for roughly 85% of smartphones giving Spotify a strong presence in a market that is bigger than iOS. This gives Spotify the strategic ability to leave the iOS platform and focus exclusively on Android should they feel it is beneficial. Additionally, on the Android platform, Spotify enjoys the ability to integrate with native features and not incur the significant 30% haircut that iOS charges. This could also establish a situation in which it is in Apple's best interest to make some concessions to keep Spotify on iOS.

Another path that Spotify could take to better position itself competitively in the musicstreaming industry is to pursue a mutually beneficial contract with Apple. This potential course of action stems from the fact that both companies can provide a benefit to the other because Spotify generates tens of millions of dollars in revenue through iOS while paying Apple 30% of revenues. Spotify could leverage the threat of leaving the iOS platform and remove an income stream of Apple as a bargaining chip. This leverage could bring Apple to the tabel to negotiate a mutually beneficial agreement in which Apple will take less of Spotify's revenue as a percentage in exchange for Spotify remaining on iOS. This could also open the door to Spotify receiving even more concessions and better integrating with iOS in order to provide Apple, and itself, with substantial revenues. A key dynamic here is the question of: how much does Apple want Spotify on iOS? Given that Apple has made over \$100m through Spotify revenues on iOS in the past 4 years there is reason to believe that Apple would want them on the platform. It is also important to note that Spotify's presence on iOS harms the top line of Apple Music - these tradeoffs and possibilities should be explored through negotiations. Should the two competitors strike a deal and engage in a mutually beneficial, repeated game going forward, it could mean better outcomes for both parties.

Recommendation

After considering the many options that Spotify has at its disposal for strategic action against Apple, it is clear that the best path forward is two fold. The music streaming company should pursue legal action against the anti-competitive behavior of Apple and afterwards engage in negotiations for a potential repeated, contractual agreement with Apple going forward.

Firstly, given evidence regarding the anti-competitive behavior of Apple and its dominance of iOS, Spotify must pursue legal recourse seeking a monetary payout for the lost revenues it unjustly incurred. Throughout the last four years, Spotify has paid Apple over \$100m in order to collect revenues on the iOS platform. During this time, Spotify has encountered blocked app

updates to its service, an inability to integrate with native functionalities, added difficulty for converting free users to paying users, and an inability to share sales information to customers through iOS. The opportunity costs of these handicaps are impossible to measure - there are potentially millions of Spotify would-be users that could have been turned away from the platform and to Apple music due to its structural advantages. It is also important to note that a major externality in this relationship is the consumer: music-streaming users are directly incurring many of the costs that stem from Apple's dominance and ability to negatively affect the cost structure of Spotify. Due to the reality that Spotify has incurred unjust opportunity costs as well as massive discriminatory costs at the hands of Apple, a company operating what should be an open market on its iOS platform, it is clear that reparations for Spotify, and in turn the consumer, are in order. The crucial consideration that Spotify must make before proceeding with an antitrust litigation strategy against Apple is where to base the lawsuit.

When deciding which legal realm to base the lawsuit in, it is important to consider the focuses of each. The US is the more significant legal realm with a larger international span due to its positioning in the largest economy in the world, the increased philosophical focus on consumer welfare, and the fact that its legal frameworks are nearly identical to that of the EU. It would be favorable to pursue litigation in the EU should this be a more populist or merger-centric antitrust situation. While proceeding in litigation against Apple in the US, it should be crucial that Spotify focus on the impact Apple's anti-competitive behavior has on consumers in order to best help their chances of legal success. Although antitrust litigation against technology companies in the US has been a mixed bag of results in recent history, it is clear that there exists a real chance of Spotify benefiting substantially from the endeavor.

After all legal avenues of recourse have been exhausted, Spotify should then negotiate with Apple for more favorable positioning on the iOS platform going forward. Spotify should leverage the threat of leaving the iOS platform, its strength as the best music streaming service, and the outcome of any legal action taken against Apple in order to gain a favorable outcome. The key concessions that Spotify will hope to gain in the negotiation are the reduction of the 30% revenue cut that Apple takes, better functionality/integration on the iOS platform, and the allowance of Spotify throughout the Apple ecosystem. Though all of these goals may not be realized during negotiations, the chance of them occurring contractually and affording Spotify strong competitive positioning going forward make them a worthwhile pursuit.

Works Cited

European Commision(2009). Changes after the entry into force of the Treaty of Lisbon https://ec.europa.eu/competition/information/treaty.html

Holm, A.B. and Gunzel-Hensen, F. (2017). Succeeding with freemium: strategies for implementation, *Journal of Business Strategy*, 38(2), pp.16-24

Hsie, R. (2017), "Qantas airline to offer free in-flight Netflix and Spotify", *The Independent*, 15 *February*. Available at

https://www.independent.co.uk/travel/qantas-airline-free-netflix-spotify-in-flight-entertainment-a7581976.html

Hu.C. (2017), Between the Lines: Unpacking The Spotify-New York Times Partnership. *Forbes, 13 February.*

 $\underline{https://www.forbes.com/sites/cheriehu/2017/02/13/spotify-new-york-times-bundle-partnership/\#60747c3d1ed9}$

Kumar, V. (2014) Making Freemium Work. Available at:

http://hbr.org/204/05/making-freemium-work

Nicolaou, A. (2017). Apple seeks to give the music industry a smaller slice of streaming revenues. *Financial Times*, 21 June.

https://www.ft.com/content/99881542-f7fa-33d8-921f-1696d9587fe6

Spotify Consolidated financial statements 2016, 15 June https://gd.lu/rcsl/15WNGz

Statt, N. (2015), Jimmy Iovine wants Apple to save the world from free music. *The Verge*.

https://www.theverge.com/2015/10/7/9473895/jimmy-iovine-apple-music-spotify-streaming-comments

Tübingen, Wernhard Möschel. US versus EU Antitrust Law.

ftp://ftp.zew.de/pub/zew-docs/veranstaltungen/rnic/papers/WernhardMoeschel.pdf.