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Multi-Homing costs

Multi-homing costs are the expenses incurred by users or suppliers to affiliate with the company and stay affiliated with multiple platforms to experience several versions of the same product simultaneously. If users are paying $10/month to subscribe to Netflix, they also want to subscribe to Hulu, Disney, or HBOMax for video streaming on different platforms. The multi-homing cost can be estimated to be the aggregate of the cost required to subscribe to different platforms along with Netflix.

Demand for differentiated services

Demand for differentiated services means that the demand for services that provide the best and most unique features which will cater to a certain user segment that needs the additional features for the services. The demand stems from the different needs of the consumers. This will tend to divide the market based on user segments and their needs and create a niche market for differentiated services. These firms coexist together sharing the same market and catering to different market segments. For example, let's consider food delivery platforms. There are a set of consumers who know what they want to eat like Domino's Pizza and would directly order from their app. Whereas another set of people would like to see various options available around them and try out different new restaurants and cuisines sitting at their homes, and hence they would use the Food delivery apps like GrubHub, Uber eats, etc. Hence the demand for different services and preferences is an example of a demand for differentiated services which gave rise to Food delivery platforms that were previously not present.

Winner-take-all markets

To determine if a company can exhibit a **winner take all markets** phenomenon**,** the three properties need to be studied, network effects, multihoming costs, and demand for differentiated services. For a company to emerge as a dominant/winner amongst its competitors i.e., be a winner take all markets, it should exhibit the following properties:

Strong network effects

Direct Network Effects: If a company has a strong direct network, it means that it promotes the products well through different marketing strategies like billboards, media, television, etc., and spreading the good word about the product/service which helps more people to adopt the product. This will help the company emerge as a more dominant firm and rise over other competitors.

Indirect Network Effects: If the company has a strong indirect network, it means good work is spreading across the market about our product/services from our consumers (e.g., users and suppliers in a two-sided market) through positive feedback, reviews, or word of mouth, etc.

which in turn is increasing the firm's demand and help the company perform better. It also helps us determine how well the consumers perceive our product.

High Multi-Homing costs

If the multi-homing costs are high, the users' likelihood and willingness to be affiliated with multiple providers and pay for similar services reduces. This will prevent the market from being divided and becoming a more dominant market.

Low demand for differentiated services

Suppose the users are not inclined towards different products offering varied features, versions, or uniqueness. In that case, the users are more inclined to choose a company/product with strong network effects, and a dominant firm will emerge. If the users are happy with the product, they would not feel the need for additional unique features of other products. This will reduce the chances of users switching or being affiliated with other providers. On the other hand, if the demand for differentiated services increases, different providers will coexist and split the market based on different user segments.

Hence, the above three properties together define if the market can be awinner take all market or not.

Example- Music Streaming Industry:

A winner-takes-all market is one in which one company or product dominates the market frequently due to its greater value, appeal, or popularity. Because it can take the bulk of the market share and leaves little room for rivals to establish a sizable footing, the dominating company or product in such a market is frequently referred to as the "winner." For better understanding, let's study the **"Music Streaming Industry"** and analyze it to answer if it is a winner-takes-all-market. We shall analyze both the **artist's and consumers' sides** of this market, and for this analysis, we will look at the **time window from 2012 to the current year (2022).**

Some examples of products and consumers for the **"Music Streaming Industry"** are as mentioned below**:**
Products: Spotify, apple music, Amazon Music, YouTube Music
Consumers: "Music Listeners". In other words, people who enjoy listening to and streaming music on their computers, phones, and other devices with an internet connection. They have access to and listen to music.

The number of people using services like Spotify, Apple Music, and Pandora to listen to their favorite songs has risen dramatically in recent years, spurring the expansion of the music streaming market. These services link consumers with their favorite artists. It also allows musicians the chance to perform for an audience and share their songs. The market for music streaming is anticipated to rise as smart devices are increasingly adopted. Music listening has altered because of smart gadgets like smartphones and smart speakers. To state the facts, music

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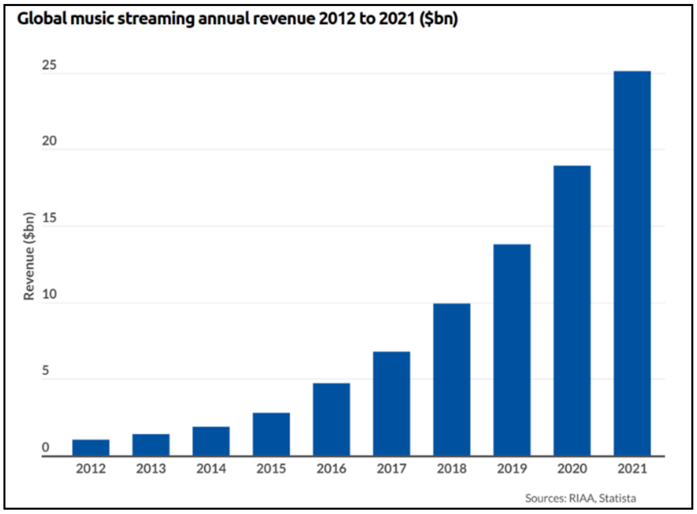
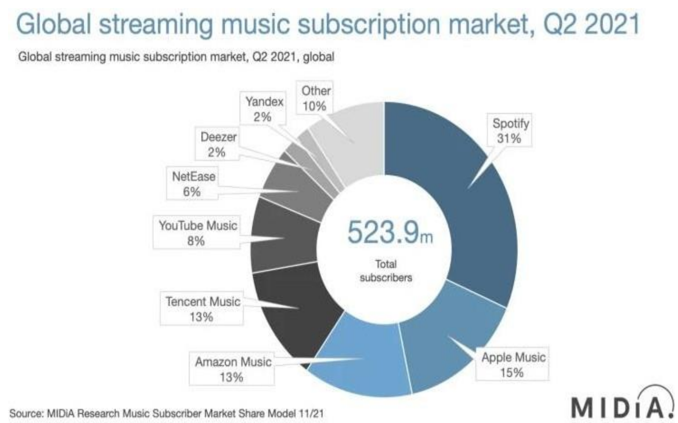
streaming apps generated $25.1 billion in revenue in 2021, a 32% increase from the year prior. Spotify is the world's most famous music streaming platform, with over 350 million users and 150 million subscribers.[1] The following diagram shows the growth in the annual revenue for global music streaming.



Source: Business of Apps



https://www.theverge.com/2022/1/20/22892939/music-streaming-services-market-share-q2-2021-spotify-apple-amazon-tencent-youtube

Now that we have set the background for the music streaming industry, let's analyze the data more deeply and see if it is a winner-takes-all market.

The music streaming industry can be analyzed as:

Direct Network Effects

There are multiple types of network effects in the music streaming industry when we consider the consumer side of the market. At the very heart of the direct network, effects are the recommendation-based system of a music streaming service. For example, in Pandora, "the users start with basic cold-start recommendations, based on their gender, age, and ZIP code."[2] As users keep using Pandora analyze what ticks them, users, by gathering data ranging from their likes and dislikes to when they skipped different songs. As more users gather on the platform the Pandora machine learning system is better able to give recommendations. By allowing them to decide which song to play next for the new user by pairing up data they gathered from their user base. This usage of AI and ML to generate insights and recommendations are prevalent in all top music streaming apps thus they have high direct network effects. Spotify goes further in direct user network effects by providing friends the chance to see their friends' playlists and activities. This makes the platform more prevalent once you have more friends.

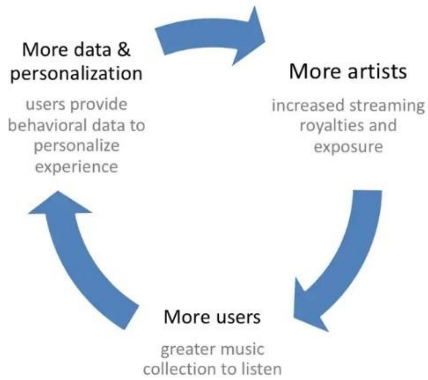


Figure 1

Indirect Network Effects

When talking about indirect network effects we will compare the consumer side of the market with the artists' side of the market. Users tend to listen to multiple genres of music based on their moods, preferences, time of the day, etc. So a user will always be attracted to platforms with a large collection of songs, especially popular songs. This creates an increase in the demand-side network effect. As the users benefit from the increase in the number of artists and thus the number of songs on the platform. While in the case of artists, supply-side indirect networks are more apparent. The artists will look for avenues that increase their exposure and a way to earn more. With each stream of their songs, artists are paid royalties. Thus, the user base has a large impact on their money-making abilities. Thus, a high indirect network effect is also guaranteed. Considering both the direct and indirect network effect in the music industry, there is a positive feedback cycle[3] (Figure 1) which will help the company's growth.

Multi-homing costs

We need to analyze both sides separately when we talk about the multi-homing costs in the music streaming industry. On one side, we have artists who make music and either partner with music labels that release music on different streaming platforms or release their music on such platforms. The artists prefer to release their music on all major platforms like Spotify, Apple Music, YouTube music, etc. to reach the maximum number of listeners and gain more popularity. One important factor in deciding where they want to release their music is who has a higher pay-per-stream rate and a larger user base. They want to enjoy the benefits of both sides. For example, as seen in Table

1 [4], the pay-per-stream that an artist gets from Spotify is just $0.00318, whereas, from Tidal and Apple music, it is comparatively higher, which is $0.01284 and $0.008, respectively. But, artists are aware that Spotify has the largest customer base. Hence, they prefer to associate and release music on multiple platforms to get benefits from both sides.

STREAMING PLATFORM	ROYALTY RATES (PER STREAM)	STREAMS REQUIRED TO MAKE $1
Tidal Music	$0.01284	78
Apple Music	$0.008	125
Amazon Music	$0.00402	249
Spotify	$0.00318	314
YouTube Music	$0.002	500
Pandora	$0.00133	752
Deezer	$0.0011	909

Table 1

In 2016, Drake agreed to a $19 million contract with Apple Music to promote their streaming service by hosting a one-week exclusive release of his new album Views there [5]. Views was streamed more than 250 million times during this week and more than 1 million copies were purchased on iTunes. The record then kept expanding as it became accessible on several platforms, including Spotify and Tidal. Before 2017, there used to be music exclusivity on different platforms but, collectively all of these platforms decided to end it. Spotify and Pandora rarely ask for exclusivity from an artist whenever they onboard one, which allows them to multi-home on other platforms. Currently, the multi-homing costs for artists are very low or negative since they are paid by all the platforms.

On the other side, if we talk about consumers, the story is a bit different. There are two sections of consumers in the music streaming market. Non-Premium and Premium subscribers. Non-Premium subscribers are the ones who enjoy music for free but with advertisements and low service quality. They are happy with the basic features and do not want to pay. The multi-homing costs are low for them as it will just be the learning cost here that will be encountered. They like to experiment with different streaming applications like Spotify, Pandora, and Gaana.com. They are not loyal to one streaming service. The data shows that streaming service users are listening across multiple platforms and happily sharing their accounts (Table 2) [6].

Apple Music Subscribers	Spotify Subscribers	Soundcloud Subscribers
40% share their account	33% share their account	27% share their account

Table 2

Whereas, Premium subscribers are the ones who pay a monthly subscription fee which is $11 for Apple Music, $10 for Spotify, and so on. They enjoy the benefits of customized playlists and ad-free music. Since most of the music is available on either platform, they do not want to pay the subscription fee for both platforms. They stick to one as the multi-homing costs are high for them.

Demand for Differentiated services

Music can be divided into genres like Hip Hop, Pop, Jazz, etc., and moods. Considering the consumer side, people often prefer to listen to a specific genre based on their individual choices. To cater to the moods and likings of its customer base and keep them hooked, all types of music need to be available on the music streaming platforms. The demand is high for differentiated services because of the plethora of genres and different mood-based music playlists. All the different platforms like Spotify, SoundCloud, Apple music, etc. have internalized the genres and thus provide a variety of genres. Furthermore, there are some additional features that each platform has focused on. Like Tidal Music services have increased their sound quality to up to 96KHz for certain certified tracks[8].
For artists, the main focus is to minimalize their costs while supplying music on a platform and being able to generate new content. So that they don't have to share their earnings with music labels, this created a huge scope for SoundCloud to leverage. SoundCloud provides ease of music creation for Indie artists, as it currently has over 20 million indie artists on its platform[9]. Thus there is high demand for differentiated services in the music streaming market considering both sides.

Figure 2 [7]

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Inference

Based on the above analysis we have concluded that the direct and indirect network effects are high, the multi-homing costs are low and the demand for differentiated services is high. Network effects are strong as more consumers mean better customizations of algorithms which pulls furthermore customers to the platforms. The multi-homing costs as mentioned above are low for non-premium subscribers (majority) but high for premium subscribers. So they do have the option to enjoy music streaming on multiple platforms. Consumers also like to explore and prefer a different variety of genres and hence the demand for differentiated services is also high here. Similarly, with more listeners on a platform, more artists would like to release their music to the platform to grow their network (listener base). The artists in this industry also prefer to multi-home their content for which they are paid and hence it has negative to low multi-homing costs for them. Some artists prefer one platform over other based on the amount of pay-per- stream they get and the proportion of earnings they need to share with the music label. Hence thedemand for differentiated services is high for them as well. Since this goes against the definition of a winner take all market definition, the music streaming industry is not a winner take all market.

The music streaming industry has seen a massive boom in the past years. With the launch of new platforms, the competition is only getting tougher. One of the growth strategies for these platforms/services, like Spotify or YouTube, is to provide Bundling or Versioning options to its users. This is also referred to as an "Envelopment attack".

For instance, let us study the envelopment attack of the music industry, focused on Spotify. Spotify bundles its original podcasts and music with its basic and premium services. Spotify produces exclusive audio content under the name Spotify Originals. Usually, these are podcasts or other audio programs that can only be found on Spotify and cannot be found elsewhere.

In the current structure, Spotify shares about 52 percent of revenue from each song with the label. "The label, in turn, pays the artist a royalty of anywhere from 15 percent to, in some cases, 50 percent of its cut."[10] By agreeing to a direct licensing deal with Spotify, artists and their representatives can keep the whole payout. Spotify takes out the middleman (label) so that artists have ownership over their music (artists get a more significant percentage of profits) without the fear of not being heard over other artists.

This strategy of Spotify has contributed significantly to its growth by:

- Enabling more artists to launch themselves on Spotify. This attack on Spotify has been a cross-boundary disruptor because Spotify has evolved from being just a music streaming service to a music streaming service with original productions. Spotify is on its way to taking away the labels and production units.

- Enabling consumers to get access to these originals with bundling. The customers who initially would have been skeptical of the new music or podcasts and would not have paid extra to access them can now access these with their bundled plans.

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