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Chair of IO and Competition Theory

Shift of Value in the Music Industry: Analysis of the Effects of Digitalization of Music and Streaming Services

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Shift of Value in the Music Industry: Analysis of the Effects of Digitalization of Music and Streaming Services

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Abstract

The music industry has always been structured as a strict oligopoly with few major firms setting the rules of the game. Industry value was mainly captured by its ability to sell records and artists needed to be supported and backed up by a formal structure. Today, with the continuous development of technologies leading to an almost permanent online connection, products exchange and personal relations greatly increased. An important new achievement occurred with the introduction of Napster in 1999, a program which gave the possibility to download freely music files from other people's hard drives. As soon as this milestone was set, records sales halved in just a few years, and, although this app was closed soon due to some legal claims pressed by artists and record labels, many other websites were formed thereafter. The traditional model thus changed.

Streaming services have shifted completely the value of music by decreasing revenues from recorded products forcing firms to rely on what were once considered as ancillary activities such as live concerts, promotion or merchandising.

The aim of this thesis is to review how this process has modified the role of the firms in the market and the balance of power between firms and artists. I compared current and past situation and I presented some examples to depict present situation for firms. In the last part of the manuscript I proposed a model to suggest an hypothesis for a possible future optimal exploitation of this industry structure.

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INTRODUCTION

Whenever technology made it possible for melodies to be recorded upon a medium for them to be listened as many times as the listener pleased, it came as a natural consequence for an industry with record labels who took care of recording, music distributors, talent scouts and many others to be born. With time, through years of contractual agreements and mergers, this industry assumed an almost textbook style form of oligopoly, in which, starting from the 1970s, few major players owned almost 80% of the market while the remaining portion of share was dealt by myriads of tiny independent firms who, by themselves, were in control of such a small portion of the industry that their relevance was marginal.

The idea of sale and production of the product was straightforward: the music artist was found and signed by a record company who took care of the recording and distribution of the product, in order to eventually reach its fans through retailers. Parallel to this process of sale, the artist would perform in live concerts and usually, equally to the amount of albums sold, tickets would be bought and venues filled.

The creation of Napster in 1999, however, was a turning point for the music industry: some of the fundamental mechanisms started to be modified, lifting a new ideas of product fruition. Napster was a software which allowed its users to access other hard drives' mp3 music collections and copy all desired files. This meant that, for the first time in history, people were able to access for no cost to an almost unlimited library of music. Napster's story was short, as one might have deduced; the main fault of this system was that those paying for the consequences of this app were music performers and their labels who received no royalty from the exchange of their work. This lead to a huge legal action taken by the offended party and ultimately to the shutdown of the service. Later on, after being purchased by a parent firm, Napster would manage to resurface, but never reaching the levels of popularity and success it once had.

However, even though Napster had stopped working, it had changed the system; people had been able to touch with their own hands the "access-based" rather than the "ownership-based" interface of music; the model had been set and numerous websites, whose purposes were very similar to those of their ancestor, were created. Parallel to this, the evolution of technology was increasing the feasibility and reach of these projects, implying that the innovation had now disrupted the links with the past idea of music distribution.

Nowadays, access-based music is central in the society and, through apps such as Spotify, Apple Music or Tidal, just to name a few, music labels have had to transform to keep up with time; the

balance of forces present in the past industry are currently going through a period of adjustment to the new musical landscape.

Many have wondered whether this model would be sustainable and what would be the consequences it would bring with it. What would happen to the old forces? Would they become obsolete? Where would the value of the industry reside?

Traditionally, the main revenue stream of an artist was mainly represented by its ability to sell records, this would lead to popularity with the public and eventually to fill concert venues. This positive relation between the two goods is not applicable to today's market. Alan Krueger, famous economist, has captured this idea with the Bowie Theory. The famous singer in fact had once advised:

“You'd better be prepared for doing a lot of touring, because that's really the only unique situation that's going to be left.”

Krueger believes that while in the past the promoters would under-price concert tickets knowing that it would lead to more physical sales, today instead, since this relation has been severed, they do not feel the need anymore.

Moreover, starting from the first years of the 2000s, there has been a noticeable decrease in the selling of records. According to estimates, CD sales have dropped by 50%. For almost a decade after 1999, revenues from physical products fell from \$12.8 billion to \$5.5 billion in the US music (one of the main markets in the industry both for demand and supply) and worldwide from \$37 billion to \$25 billion in 2007 (Waldfoegel,2011). While streaming and subscriptions revenues, according to the Recording Industry Association of America (RIAA), have grown of 555 percent from 2012 (\$1'400 million).

According to the International Federation of the Phonographic Industry, global digital revenues now sum up to 50% of total recording sales. Websites and apps such as YouTube, Spotify or Tidal are now a central part of the industry.

SERVICE	% OF INTERNET USERS AWARE FOR MUSIC*
<i>YouTube - For Music/ music videos</i>	84
<i>Paying to download music from iTunes</i>	68
<i>Spotify</i>	62
<i>AmazonMP3</i>	57
<i>VEVO - For Music/ music videos</i>	41
<i>Deezer</i>	28

(Source: Ipsos Media CT)

1.1 THE TRADITIONAL MODEL (BRIEF HISTORY)

There is a common belief for which the terms “recording industry” and “music industry” have the same meaning; this is due to the strength of the former in the 20th century. The second part of the 20th century represents the time when the recording industry most flourished and gained a dominant position. By the end of the century, the industry had formed and settled in an oligopoly composed of few bigger firms who by themselves controlled almost 80% of the market. One of the main reasons behind the settlement of this structure is certainly due to the risk present in the market and the possibility to diversify it through investments of more artists. It is rather complicated to rightfully forecast the future profit of a cultural product. Cultural goods are of non primary necessity, very elastic in demand and influenced by the public’s personal taste. For this reason they are subject to high levels of uncertainty; therefore the bigger the firm the easier to spread this risk on various acts. Another reason for the formation of the traditional model was due to the entry barriers imposed by these firms in the 20th century. A first barrier was given by the cost of production and promotion. Due to the lack of economies of scales or vertical integration, for example, independent labels (the so called "indies") were unable to reach a broader audience. This relegated “indies” to only deal with more niche genres. However, to thoroughly understand how this model formed, it seems necessary to start analyzing the historical underlining which led to the building of the structure.

The real starting point of the modern music industry can be found in the introduction of copyright rules in 1908. The situation by the end of the first World War presented few firms controlling the European market: the German Linström and Polyphon, the French Pathé Frères and the British Gramophone company and Columbia Gramophone. Similarly, in the

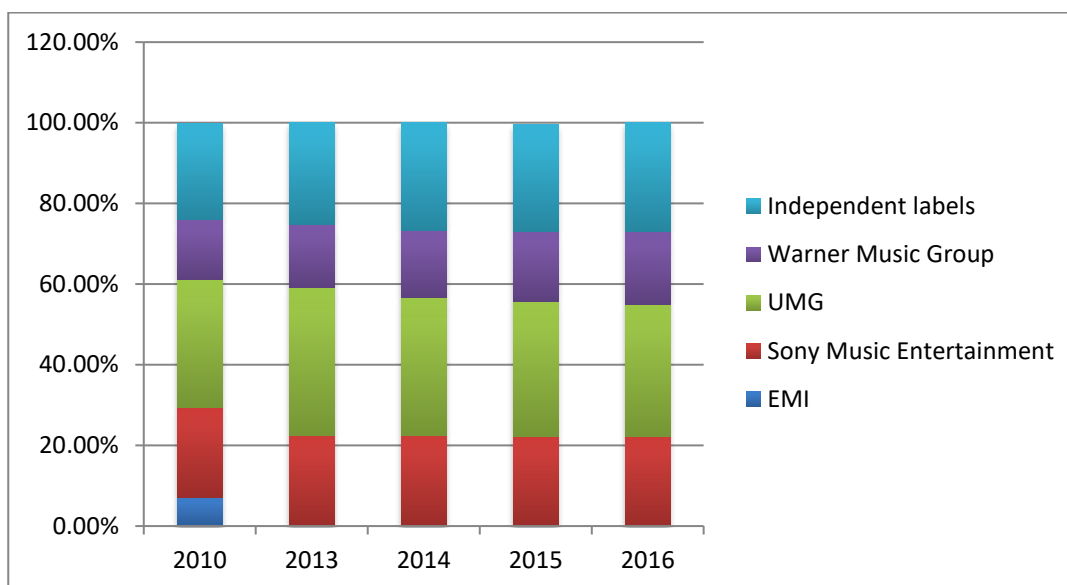
United States, the leading companies were Edison phonograph & co., Columbia Phonograph co. and Victor Talking Machine. Right after the war, in the first part of the 20th century, an increasing number of firms started to enter and, by 1921, the industry was marked by an historic high in sales of \$106 millions. Just four years later, however, the industry suffered a 44.3% loss, due to overproduction, the affirmation of jazz and the development of radio broadcast. For the first time, few new firms started to emerge because only the biggest ones were able to survive this down period.

The sequence of events that led to the creation of the current model happened through a complex string of mergers and acquisitions between companies which saw a continuous of changes in property of many firms. I believe, however, a few events are worth mention.

The first one was the entering in scene and development of British firm EMI (Electrical & Musical Industries Ltd.). EMI gained its first importance in 1931 when it merged with Gramophone Co. and Columbia Gramophone. It quickly became a central player in the industry, thanks to the fact that it owned important firms, both in Europe and in the US. In the 1950s, in fact EMI and Decca records were the only European record labels able to confront the extremely competitive environment enhanced by the new type of promotion developed in America through Disc Jockeys. It was a time in which new firms who entered the market had to face a great competition and had to experiment new genres and unique acts. Very soon, however, in 1951, CBS-Columbia, EMI's main source of pop repertoire, and RCA-Victor, another important American partner, ceased relations with their mother firm to affiliate with others, causing EMI to lose 50% of its titles. This harmed the British firm who, as to avoid failure, started forming deals with independent firms with their experimental acts and building: a "Rock 'n Rolls" title list. Soon this decision granted global notoriety. Just a few years later in fact the so called "British Invasion" led by The Beatles exploded and brought EMI and Decca Records at the apex of their business.

Another event worth notice, is the invention by Sony and Philips of the CD which happened almost simultaneously to the launching by Warner Bros, RCA and IT&T of the Music Television Channel (MTV). This invention introduced Sony in the market for the first time. Warner Bros, instead, who had initially started as a branch stemming from movie productions, was already a known player in the recording industry. It had in fact launched Warner Bros Recordings in 1958 and soon purchased two-thirds of Frank Sinatra's Reprise label and merged with other relevant record labels such as Elektra Records and Asylum Records.

In the 21st century the industry is characterized by the prevailing of three major firms: Sony, owned by the Sony Corporation, Universal Music Group, who, after buying in the PolyGram, is now owned by the French telecommunication firm Vivendi and Warner Music Group owned by the Russian Access Industries. EMI, which up until a few years ago had to be counted in this list, had to file for bankruptcy in 2011 and was divided between Universal, who got the recording branch and Sony, who got the publishing arm.



(Information retrieved from: Statista¹)

In most recent times, digitalized technology has permanently entered the industry. With the introduction of online downloading websites, streaming services and similar easily accessible products, in the years 2000s, the industry model was forced to modify in accordance with the novelty. Majors, in fact, are now obliged to interact and concord on agreements with them, also changing their natural scopes, in order to keep relevance in the market and not become obsolete to the development of technology, with the risk of being left behind in the new environment. These themes will be further and more deeply analyzed later.

¹ <https://www.statista.com/statistics/422926/record-companies-market-share-worldwide-physical-digital-revenues/>

1.2 THE OLIGOPOLY

An oligopoly is an industry model characterized by few industries who own large shares of the market selling similar products. Each firm must strategically interact and compete with the other and all decisions can impact the business as a whole. Due to the significant market share managed by each firm, one may drive another out of the market. It is in fact necessary for each business to compare costs of collaboration with costs of an economic war in order to ensure stability in the system. Reasons which may bring to the formation of this kind of model are for example entrance barriers in capital expenditures, legal privileges (i.e. ownership of licenses and patents) or network externalities. Experts have theorized situations which balance costs and expense for each firm analyzing whether it would be better to collude or not and studying the general dynamics this industry model could be confronted with.

We shall now analyze the characteristics of the oligopoly present in the traditional music industry.

One of the distinctive elements that characterize an oligopoly, as previously mentioned, is the few number of firms; in the music industry we can distinguish three main firms (Sony, UMG and Warner Bros) who have enough power to create significant changes to the market. This centralized power is often obtained by imposing barriers for new firms who would want to enter; these barriers may be consequence of the exploitation of economies of scales, legal reasons or scarcity of resources for example. In the industry taken into examination, the first barrier used to be represented by capital. Traditionally efficient recording, promotion and distribution of a musical product required a significant initial investment, which, together with the risk of selling a product whose expected profit is only based on speculations of the public's tastes and which is easily substitutable, has been source of obstacles for emerging firms. Majors instead, own rights of enough acts to have the possibility to spread such risk on more investments. Furthermore thanks to the increasingly vertically integrated structures and the evermore incisive international presence granted by years of contractual agreements and mergers, not only were majors able to sustain this risk, but also to cut many transaction costs which would've otherwise impacted significantly production expenditures.

General pricing levels as well are decided by these firms, recently in fact, law suits were made against major labels condemning excessive inflation of download price agreements (The Guardian, 2011).

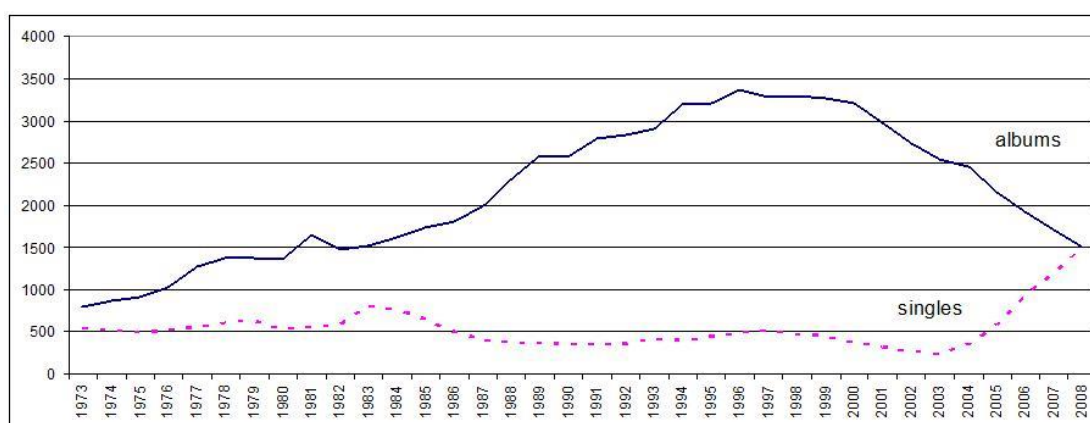
It can also be noticed that today's majors are those firms who, in the past, not only had the right intuition music-wise, but also were the ones to capture, or sometime, create, the new technologies that would've changed the basic fundamentals of the industry. Hence, it seems clear that, when talking about the music industry, we must take into consideration the impact brought on by innovation. The issues presented by the introduction of streaming services only embody a further example of the control that novelty can have within this market. Just as the CD shifted the dynamics thirty years ago and required original players to adjust to it, today new settlement is required.

1.3 REVENUES FROM PHYSICAL & DIGITAL MUSIC

From the creation of the gramophone and phonograph in the 1870 and 1877 respectively, musicians started to seek commercial outcomes for their product, by producing and distributing physical formats of recorded music. Consequently, to ensure capitalization and aid in distribution, record labels were born (Bernardo & Martins, 2014). The music industry kept prospering and developing until in the 1990s it reached its peak. Few large firms were created from years of agreements and were denoted as "majors", given the fact that alone they controlled more than 80% of the market (IFPI, 2012). Artists would sign a contract with a record company who would take care of the production, distribution and promotion of their music with the aim to reach a large number of consumers. The value of this industry was based on the ability to sell records. These were the years in which the so called Bowie theory for which there were complementarities between numbers of album sold and concert tickets bought by fans reigned true. The value of the industry was in the music.

Today streaming services and websites such as YouTube have shifted all value. Physical album's sales have dropped tremendously and streaming services have found a way to 'legalize' online unlimited music access. This process had started with the Napster app, but now, streaming services have brought it to a new level; by paying royalties to artists and labels, they have found the safe way out to make the real radical innovation. Music fruition is today mainly online. Not only the medium through which fans are reached is different, also the selling approach has changed; artists and labels find themselves in need to "resell" their product every time a consumer is thinking of clicking the song. In 2003, a couple of years after the launch of the iPod, Apple created a new digital music retailer iTunes Music Store, which soon gained 80% of the digital market.

Figures demonstrated the explosion of single sales reaching 1700 million units sold in eleven years, as from 2004. Furthermore, single formats, for the first time, outdid long-play format ones. To this day, revenue given from iTunes represents most of the revenue from sales. However, revenue from single format is much lower than the album's one, also considering the raise that partially offset the general decline in demand. Thus, in 2015, we can see that the curves are still around 50% of the industry's 1995 peaking moment (IFPI, 2015).

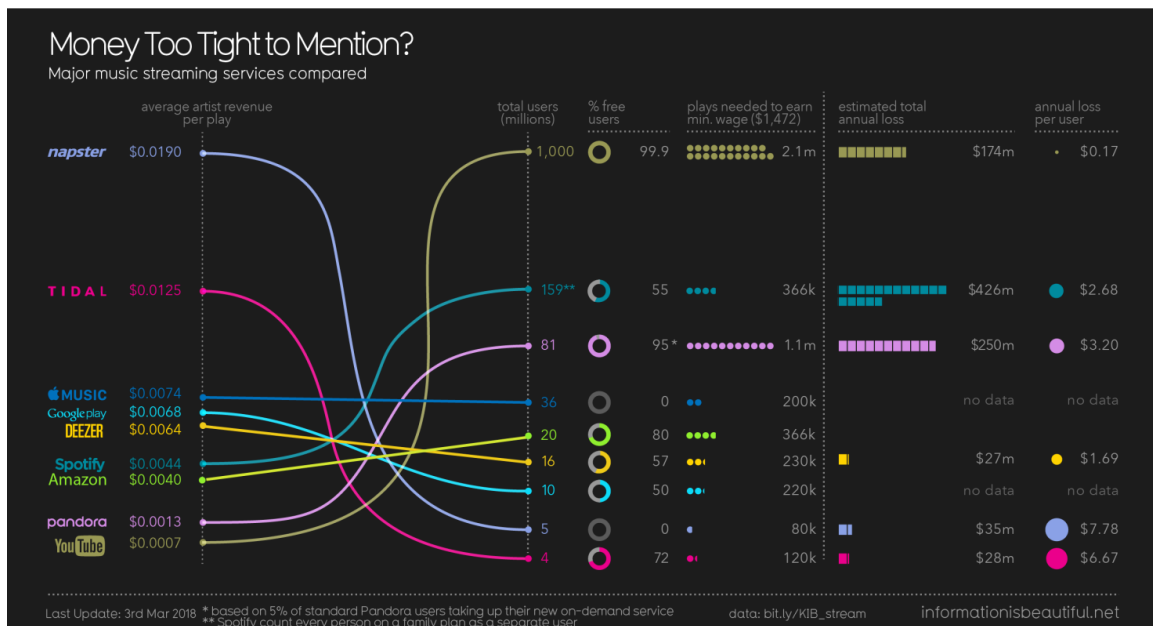


(Retrieved from: Music business research²)

Physical sales, which represented 100% of product sold, in 1997 accounted over \$25bln worldwide while in 2015 total revenue from sales reached \$15bln, only \$5.8bln of which coming from physical sales (IFPI).

As mentioned before, one of the main reasons for declines in purchases is the introduction of this new player: the streaming services. Other than the interface and channel to the fan, what has also radically changed are the rankings and consistencies of the revenue streams.

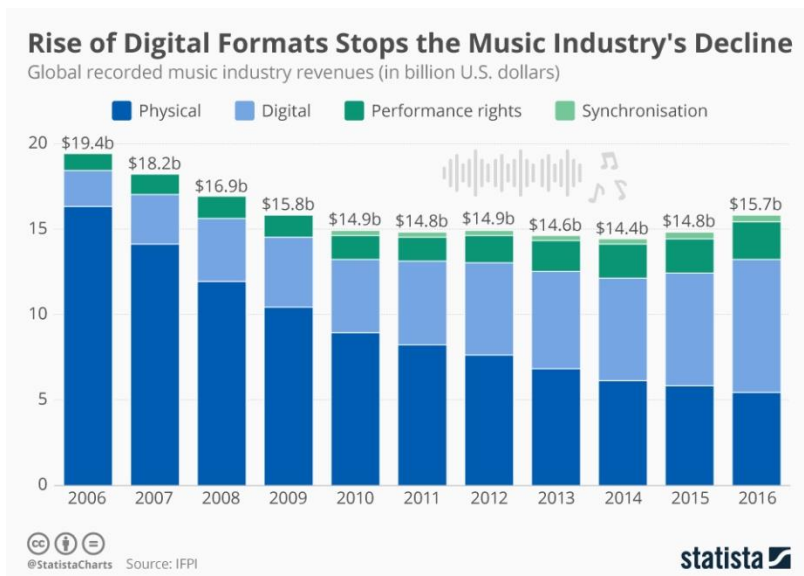
² <https://musicbusinessresearch.wordpress.com/2010/03/29/the-recession-in-the-music-industry-a-cause-analysis/>



(Retrieved from: Information is beautiful³)

These innovative platforms are now main characters in the market and are forcing record labels to interact with them in order to keep business going. Interaction, however, came with a high cost for the content creators. Revenue gained from the view or “click”, without considering advertising, is usually very small. YouTube, a globally renowned video uploading platform, for example pays its artists as little as 0.0007\$ per view. Just to give an idea of the entity of this number, to earn the equivalent US monthly minimum wage of \$1,472, over 2.1 million views are needed. On Spotify, instead, where artists need to have either a music aggregator or a record label backing them up, earnings per stream are \$0.004, making therefore over 330,000 streams necessary to reach the minimum wage. In this specific case, we should also keep in mind that all income has to be distributed between labels, songwriters and all those entitled to a share of royalty. (The Guardian, 2015).

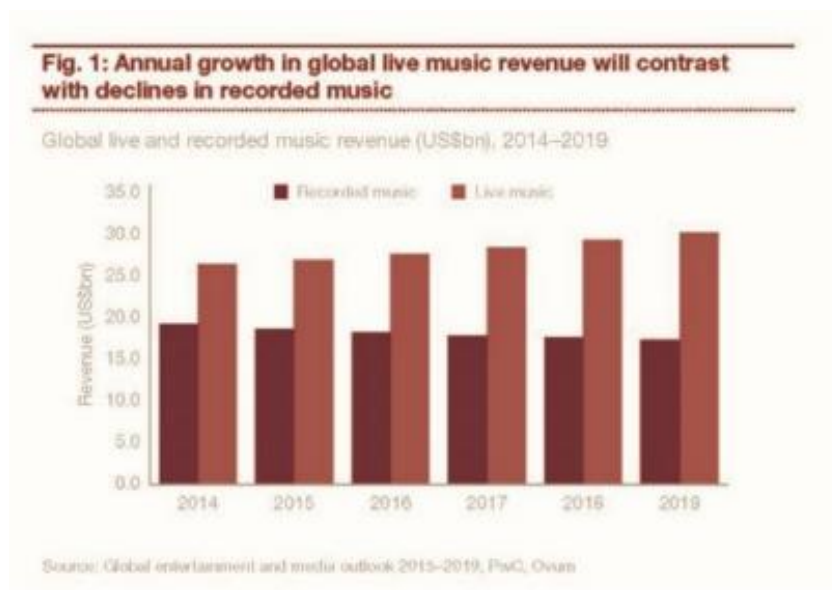
³ <https://informationisbeautiful.net/visualizations/spotify-apple-music-tidal-music-streaming-services-royalty-rates-compared/>



(Retrieved from: Statista⁴)

1.4 CONCERTS

What instead has been found to be much more remunerative are live performances.



(Retrieved from: PWC⁵)

Up until the 1990s the live music scenario was fragmented at regional level; touring was only a further promotional tool to sell CDs. The first national tour was organized in 1970 for Elvis Presley and in order to try and cut transactional costs, Elvis' management group had to

⁴ <https://www.statista.com/chart/4713/global-recorded-music-industry-revenues/>

⁵ <https://www.pwc.com/gx/en/global-entertainment-media-outlook/assets/2015/music-key-insights-1-growth-rates-of-recorded-and-live-music.pdf>

interact directly with venues and cut out middlemen. Promoters, dissatisfied, encouraged impresario Bill Graham to build a competing network-based model of national touring. This method was further developed successively and tours started to be sold as a package to local promoters and venues so that they would only receive flat fees after costs and expenses for each event. By the 2010s the main revenue of the industry became embodied in the ability of the musicians and in the shows they could play.

In 1999, the live music market came from 10% of turnover of the recorded market, nowadays the situation has changed dramatically. Taylor Swift - Billboard's first money maker for 2015 - made 1.1% of her income from recorded music sales, 0.8% (\$564,000) from streaming, while 92% counting up to \$61,700,000 came from touring, (Billboard, 2016). A similar trend can be found in most TOP CHART artists with the exception of Adele, a highly notorious British singer, who decided not to share her album '25' on streaming services. This allowed her recorded music to account for 79.6% (\$16,300,000) of her total revenues for 2015.

Similar trend can also be found when considering minor artists and those belonging to different and less rich genres. For example, jazz musicians, who need to differentiate their work with teaching or session work in order to earn a steady income, still make 40% of their inflow through live performances (Di Cola, 2013)

Why are concerts so profitable?

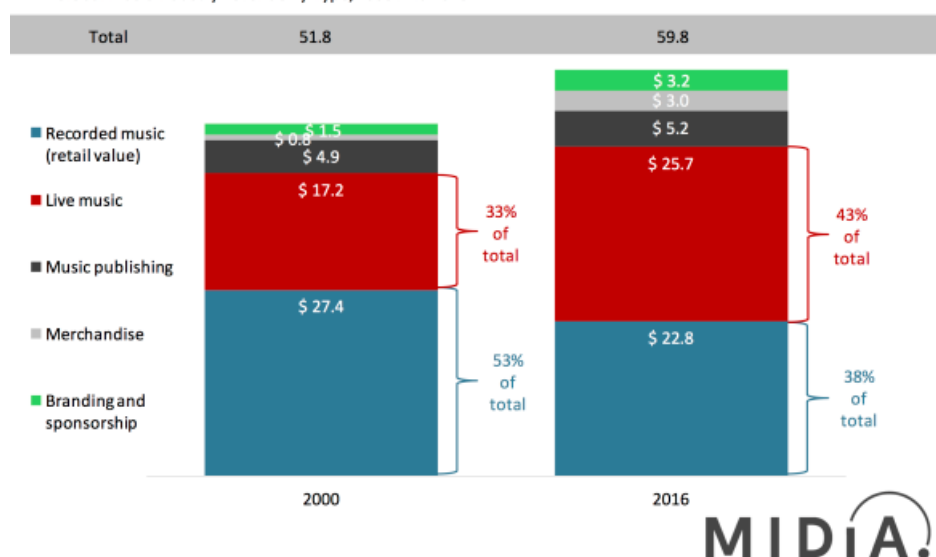
Curien and Moreau (2009) and Dewenter et al. (2012) have found the existence of a positive externality in the live music market granted by the increased exposure and ease of access to new products through streaming services. While possibly hurting record sale, they give the possibility to widen fan base and consequently achieve more clients for concert tickets.

It has been found in a 2005 study carried on by Alan Krueger, founder of the Music Industry Research Association, that concert tickets' prices have increased of 11.1% per annum between 1996 and 2003. Krueger also made the hypothesis that, due to the possibility to freely downloading music from the internet and the loss of the coefficient of correlation between concert tickets and album sales, just as the Bowie theory had suggested years prior, promoters now try to gain money through different methods. This phenomenon can be easily seen in pop and rock music, in particular in the top charters. According to the superstar effect studied in 1981, it has been shown that 1% of artists accounts for the most part of earnings (56% in 2003). An example can be found in Madonna: for the singer's

‘Confessions on a dance floor’ tour (2006) concert tickets’ prices ranged from £60 to £160 plus a booking fee of £13 (BBC News, 2006). However if you were to ask to a fan if said price were too high, he would’ve probably sworn by the fact that it was worth all the money he had spent. Concert ticket prices in fact, differently from other products, are not based on production costs, they can easily leverage on the value of one’s experience or, in a more limited way, on competition prices. They are in fact said to be “value based”.

Though Recorded Music Is Now Making Up Ground, The Balance Of Power Has Shifted To Live

Global Music Industry Revenue By Type, 2000 And 2016



(Retrieved from: Music industry blog⁶)

1.5 THE THREAT OF DISINTERMEDIATION AND NEW RECORD CONTRACTS

Since the appearance of music streaming services, thanks to technological development, initial access to music production and distribution has become easier. In the past, recording and distribution was a very costly process and a good sound quality could only be achieved through professional equipment. This made it necessary for artists to lean on firms who could afford the cost and bear the risk of such investments. Today, technology has made it possible for people to create recording studios in their own home and, thanks to the internet, distribution can also be at almost no cost.

These innovations have stirred theories of disintermediation, disappearance of the middleman, in the market. Studies have theorized that soon record labels would have become obsolete and easily surpassed by individual work.

⁶ <https://musicindustryblog.wordpress.com/tag/artist-income/>

However, from what we have also previously discussed, it has seemed clear that living off music revenue solely is not sufficient anymore; there are several adjacent activities which need to be undertaken in order to ensure a sufficient and steady income. These activities may for example be live performances, targeted promotion, merchandise sale, and many others, all necessary to achieve differentiated revenue streams which allow for a consistent revenue. Therefore, unless the artist has businessman-like capabilities, he requires a team of experts to follow his career and guide him. Robert L. Frost in a 2007 paper in fact has argued that a complete disintermediation is also hindered by the absence of alternative infrastructures to replace all services.

In response to these threats, however, record labels have acted on two different fronts. As to answer directly to the position of streaming services not only have they made exclusive contracts with them but also, the three major record labels (Universal Music Group, Sony Music and Warner Music Group) started purchasing parts of these companies, for example the three of them own between 18-20% of Spotify (Hardy, 2013).

On the other side, by building vertically integrated systems, they have designed new contracts through which they cover more aspects other than recording and distribution.

Thus, while the general fundamentals of the approach needed to reach a new artist did not change, some aspects have been subjected to slight mutations and renovations.

Traditionally, emerging acts would have to start off by playing in small venues in the hope to be noticed by someone and to pass the Artist and Repertoire Manager's (A&R Manager) judgment and, eventually, be proposed to sign a contractual agreement.

Today, because of the new environment, the initial process of the Artist and Repertoire Manager (A&R) has now changed its channels. Initial visibility in the market may be given online, rather than through small live performances, and a much larger audience can be reached without the need to travel or undertake individual transactions . Thanks to music aggregators as well, companies who gather lists of songs and manage their royalties, can be reached individually.

Nevertheless, the subsequent steps to undertake this activity professionally remain mainly unchanged.

As soon as a promising artist is found, firms must sign him/her with an exclusive contract. They will invest an initial sum between \$500,000 and \$2,000,000 depending on the type of contract and their expectation of future profit (it has been seen that of all albums 1.95% accounted for 88.5% of sales) and start working.

The most common kinds of contracts are standard recording contracts, master recording contracts and 360-degree contracts. In all cases, however, the record label acquires full ownership of the master recording:

- standard recording contracts: those are closest to traditional contracts. They are based on exclusive right of ownership over the product of an individual or group by the record label. The firm will take care of recording and distribution bearing all risks. Artists are paid through a percentage of royalties on sold album which will only be distributed after breakeven of costs. The company, however, grants a non-refundable advance payment of \$50'000 to \$350'000. These contracts are quite profitable for firms, also because royalties' calculations are never straightforward.
- Master recording: more used in Europe. In this kind of contract, the artist presents a finished product to the label. Royalties are higher than standard contracts, 15-25%. This kind of contract is often also used in B2B kinds of deals between music companies and TV advertizing or motion picture ones: you sell only the right to use the music in some way. In this case, however it is said that you only have a master licensing contract.
- 360-degree contracts: these contracts cover all revenue streams, record sales, touring, fan club websites, movies, television, endorsements, sponsoring and merchandising. They come at a very high price for the company but, being all inclusive, they are only offered to superstars, hence allow for a possibility of great revenues.

The first 360 deal was offered in 2002 to Robbie Williams by EMI with an advance of £80 million for four albums and a hit compilation. As it is clear, this is a new kind of contract, it has been one of the main actions taken by record labels to contrast the advance of new technologies and its consequent revenue outflow. Other famous 360 deals signed are, for example, the \$120 million signed by Madonna with Live Nation.

This kind of contract is seen as profit enhancing for both the company and the artist since it is based on the internalization of externalities through the company's vertically integrated model (Bacache-Beauvallet et al, 2015). 360 deals are a new business model now slowly being adopted, growing step by step with the increase in importance of the live music market and ancillary activities. Data shows that in 2010 the live music market was worth

61% of the value of the recorded market (Bacache-Beauvallet et al, 2015), and following years of drops in value of recorded music, it is allowing for the industry to prosper.

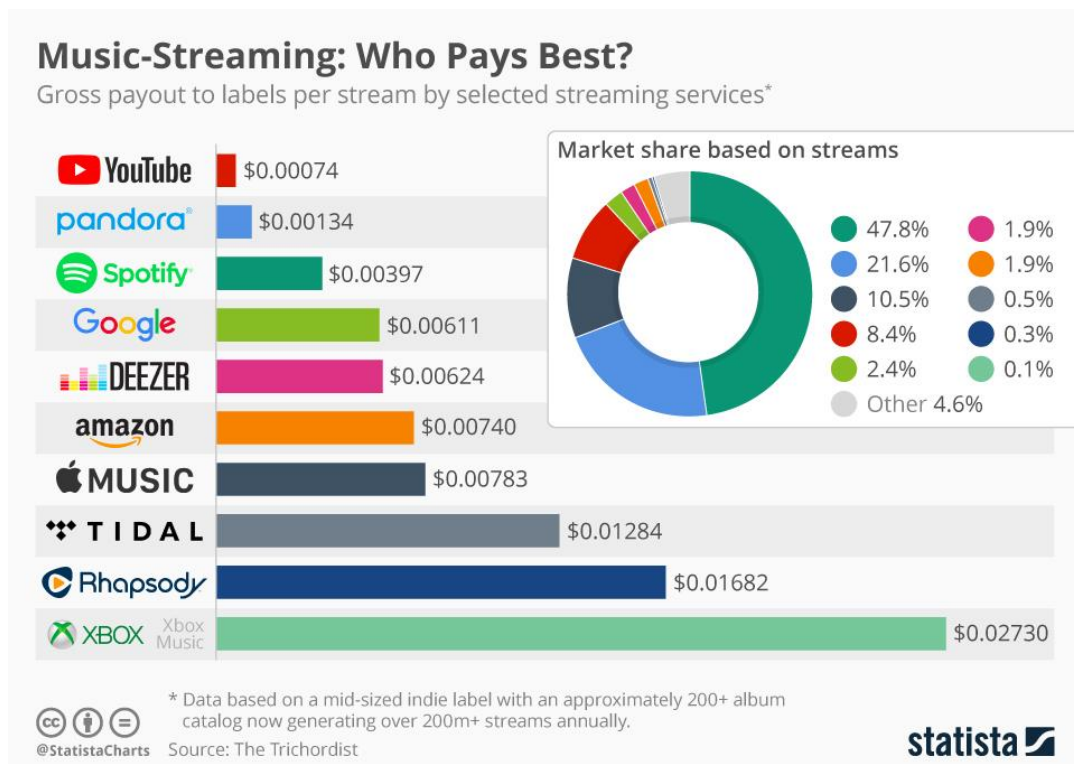
360 deals seem to be the most profit optimizing solution for the market for it ensures a steady income for artists, thanks to its differentiation of revenue streams, while at the same time giving greater revenues to companies. However, for some reasons, up to now, only few have been signed. In a study conducted by Maya Bacache-Beauvallet et al in 2015, it has been analyzed that, while these kinds of contracts should be favored by the most part, what has been significantly hindering their growth is the possibility of cheating by the firm offering the service. They have seen how the most likely to sign such contracts are those artists who don't have one yet and have never had one. This probably happens because of the common belief that in a preliminary state of one's career "any deal is a good deal". As artists became more well-known and have had more experience or are already backed up by managers and people with technical knowledge, they grow more reluctant to agree to these deals, both because of the money they would have to "share" with record labels and to the threats of these last to create unfair contracts to their own profit.

It could be argued that if these contracts were to further develop and be adopted more frequently, proxies of true values of income provided by the various ancillary activities would be easier to make and hence guide artists' decisions. Moreover, the issue of asymmetric information could be diminished also through some basic regulations, until a general model of contract identifying the most adequate percentages of revenue sharing to uptake could be then built.

Renovating contract models and scopes is a clear attempt to avoid the process of disintermediation, by offering a different and better kind of service. Moreover, by doing so, firms ensure their position and role within this market: their role on the musical side of the industry becomes mainly that of a copyright aggregator. Streaming services such as Spotify, Apple Music, Deezer or Vevo, only allow platform space to artists who are in some way backed up by an entity, in particular for legal reasons. This stems from the fact that there is no international copyright law, therefore, to avoid needing to adjust rules in each country, they expect the recording company to present products, which would cover and deal with this kind of issue internally in the very company.

By looking at the overall effect of vertical integration, it may also be deduced that this process is beneficial also for all the other players in side markets connected to the main industry.

1.6 THE VALUE GAP



(Retrieved from: Statista⁷)

One of the major issues that today is present in the musical industry is the value gap. With ‘value gap’ we identify the discrepancy between the value extracted by streaming platforms from their content and the revenue distributed to the creators of the products. This problem presents itself in particular in those platforms, of which the most popular is YouTube, that by claiming that they have no liability on the videos uploaded, they manage to legally avoid signing proper licensing contracts. Recently 2’000 songwriters, producers and artists have asked US and EU governments to intervene and create ad hoc laws to solve this misappropriation of revenue, also because recent studies have shown that of all users 82% use YouTube to listen to music and of these 81% use it as an on demand service to listen to songs they already know and not for music research and library enrichment purposes.

According to the IFPI for example, Spotify pays \$20 per user to record companies which is significantly higher than the <\$1 YouTube pays instead. It is probably important, however, to take notice of the fact that by being a premium member you are able to download songs and listen to them offline, meaning that number of streams can’t be counted.

It has been also seen that the 900 million users who have used YouTube in 2016 have generated revenues, which were then redistributed globally to producers and performers, of

⁷ https://www.statista.com/chart/13407/music-streaming_-who-pays-best/

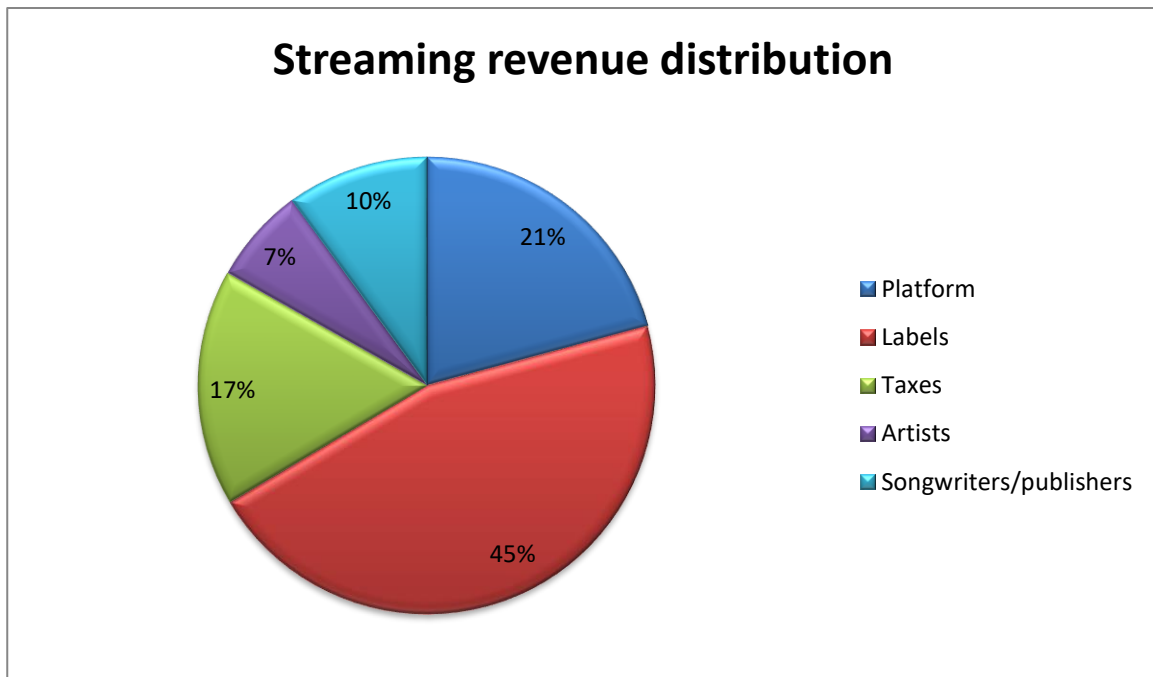
\$553 million, while instead the 212 million streaming service users have accounted for \$3.9 billion in revenue globally.

These numbers are astonishing and show the need for new laws in order to solve the loophole that now harms the industry. Unfair payments will eventually decrease incentives for quality products and will hinder a possible growth that we could've otherwise encountered. From an industrial point of view, instead, we see how this kind of behavior may also damage the structure and the possibility of reaching a homogeneous situation. Costs compared to revenues make for an unfair and almost unbeatable competition. Spotify in fact has had negative net profits since its day of foundation and has never broken even, parallel to its incomparable growth of relevance in the market costs have also increased at a slightly higher rate than revenues. This *modus operandi* may not be sustainable in a long term scenario, and YouTube's service for sure represents an obstacle for which customers don't purchase the premium version of the platform. The premium version is for Spotify the main stream of income that allows the company to keep operating.

It is ironic as well to see that according to Enzo Mazza, CEO of FIMI (Federazione Industria Musicale Italiana), the Italian revenue given by the sale of vinyl corresponds precisely to the one generated by YouTube. Google as well has conducted a study in which it suggested that if the video platforms were to close, most of its customers would resort to piracy and only 13% would choose a "high value" option instead. However, that small portion by itself would still give a positive impact to the industry, since it would pay far more than what the video platforms do right now.

I would argue that the value gap represents the key problem to the new model made possible by technological advances. Even if given means to produce at low cost and in extremely accessible ways, artists today see their work being valued for almost nothing and the positive relation usually observed between years of education and income is not valid for them any longer. This might refrain musicians from investing in education and producing high quality music.

What must as well, still be taken into account is that even though streaming services have proved to provide higher income for artists, much criticism has been drawn upon the fact that apparently record labels keep most of that profit. For example, of the \$9.99 each premium user pays to Spotify, artists eventually only get 6.8% while the record label keeps 45.6% and the platform 20%.



(Retrieved from: Techdirt⁸)

Artists' views on streaming services are not positive, one first example of rebellion has been brought on by mega-star Taylor Swift who for a few years decided to not publish songs on streaming services as a protest to the low income granted to artists. Then Eminem, world famous rapper, has filed a lawsuit against Universal Music Group, label with which he has had a contract for years, declaring that according to what has been written in his agreement the sale of individual songs on streaming services has not to be considered as a "sale" but rather as a "license" therefore implying that instead of the 12% royalty accorded for sales, he should be entitled to a 50% share of royalties relative to the licensing act. Many "older" artists would be confronted with this same situation. Nevertheless, whenever we consider "older" artists we usually mean those who are well established and that might be part of the 1% of top earning people who have enormous incomes, issues are still preset for medium and emerging acts who most of the time need to do different activities in order to live off music.

⁸ <https://www.techdirt.com/articles/20150204/07310329906/yes-major-record-labels-are-keeping-nearly-all-money-they-get-spotify-rather-than-giving-it-to-artists.shtml>

1.7 INDEPENDENTS

Up until now we have mainly taken into consideration the impact of new technologies on majors, those firms who own the biggest shares in the market; we have seen however, that even in the past a significant role has been played by the so called “independents” or “indie” firms, managing 26.8% of the market (Music & Copyright 2016). Initially, they emerged in the otherwise saturated music industry, by focusing on niche genres, looking for new sounds and experimenting them on the public. Through a process of trial and error some of the greatest genres and artists have been discovered through indies such as Rock ‘n’ Roll and Jazz music. Within the most famous names we find Island Records, Polydor, Creation, Sun, Def Jam and Atlantic, just to name a few, who have had within their catalogues names such as Elvis Presley up to more recent Jay-Z and Kanye West. In the past, indeed, it was common practice that whenever an indie would gain enough relevance in the market it would be bought off by a major firm and its music catalogue would be incorporated in the major’s list.

Similarly to the rest of the industry, due to technological innovation and novelty in music fruition and distribution, indies have also been seriously impacted by the modernization.

It has been suggested first by Young and Collins (2010) and later by Patryk Galuszka (2015) that these firms were the ones to have most suffered the shift in power brought by the development of streaming services. The first aspect that they noticed is that independent firms today control a much smaller share than what they did in the 1990s. Surely the limitation given by Spotify or iTunes for which individual musicians are not allowed to upload their music without a record label backing them up, still grants relevance to these institutions; however the emergence of music aggregators is threatening once again their role.

Music aggregators are small firms, working as gatekeepers between artists and streaming services, who for a per album or per single fee will take care of all royalties and legal issues related to the uploading of music on a streaming platform caused by the absence of an international copyright law. They represent lists of records which can be presented as packets. It is the only way through which a musician can upload their song, with the only exclusion of YouTube (service which can be freely used by all individually), online. Other platforms instead require for products to be sent in with specifically formatted content, this operation is completed by aggregators.

The vast cut in production costs, the current ease in distribution and the increased possibility of individual promotion and visibility granted by social networks and the internet represent some of the greatest threats to the indie's market. While bigger firms, thanks to their more significant economic possibilities, are solving these issues by both integrating and differentiating activities; the smaller players can't act following their model.

I suggest that these players especially, are those facing the highest risk of disappearance. Today niche artists can build their initial fan base through social network platform and, later, in the primordial stages of fame, they are able to produce and distribute their products for little cost. The only moment in which they'll need a professional back up is whenever investment risks will be too high to bear; at this point majors will be the ones to grant all musical and promotional services related to the development of their careers.

Today many indie record labels are owned and managed by artists, they offer very elastic non exclusive contracts and are usually price flexible as to give the kind of operational freedom which is often precluded to major's clients.

Moreover, independents often are faced with worse deals with music platforms which might discourage them from entering this kind of distribution and, given the experimental nature of independents, might influence market diversity.

REAL LIFE EXAMPLES

2.1 INTERNATIONAL MUSIC ARTS (IMARTS): FRANCESCO CATTINI'S INTERVIEW

Francesco Cattini is the owner of an independent record label located in Modena, Italy. His firm focuses on contemporary music, such as rock, pop, jazz, world music and gospel, classical music and dance. I had the opportunity to meet and interview him. and he gave me some insight based on his personal experience, regarding the situation that the market for the independent firms are faced with in today's industry.

He explained how the situation started to deteriorate at the beginning of the 2000s with the beginning of piracy and digitalization of music files. In the past in fact records would sell for price varying from 9€ to 12€ and, from there, royalties would be calculated. Streaming services and the decrease in physical sales have deteriorated the significant impact of income from sales; furthermore, he says, that controlling for the actual number of streams for each artist is quite complicated and not always clear, making the possibility of an eventual unfair behavior from streaming services' firms highly risky. In Italy however, he noticed , that, unexpectedly, there is still a small niche market which has stayed consistent no matter the development of technology, which prefers to stay loyal to vinyl.

Cattini has also recognized that even in middle level music, the major revenue stream comes from live music. He says that the direct consequence to this situation is that emerging artists want to tour more than necessary in particular during the summer . However, such kind of request can't always be accommodated, as, from an industrial point of view, the general increase in willingness to tour would create an oversupply of concerts which would finally decrease their value and diminish their status of main revenue stream; on the product's point of view, moreover , might eventually lead consumers to be tired out by the artist. It has previously been said, in fact, that music is not a necessary good, it's based on experience and personal value, keeping the public's interest in the artist and always supplying something that will sell and meet fans' expectations is the key to a durable product. As has been mentioned, another issue with artists' request is the concentration of concerts during the summer. Summer concerts attract many spectators, but the costs associated with open air events are enormous. Costs may be to set up the stage, to rent locations which at times may be too expensive for artists of a middle level to cover through ticket sale, but in particular, the managers underlines, given today's delicate politic environment some of the most

significant expenditures are due to security costs. This implies that often the only open events independents can sustain are those sponsored by private firms.

Mr. Cattini then explained how today, especially in the Italian's market, independent firms are slowly decreasing in number. The centralization of music labels, live music firms and radio broadcast firms are forcing small firms without a particular cut which differentiates them from others to exit the market. He also recognizes how, due to the extreme volatility of the market and of the careers of middle level artists, it is not possible anymore to think to only focus on one kind of music, his firm for example deals with various genres of music and dance. Agents of emerging artists who reach a low/medium but significant amount of fame ask for evermore high exclusivity fees in hope to be signed by majors and those artists who instead sign with independents in order to "live making music" are forced to diversify through songwriting for bigger artists for example or have multiple skills that could be used. Another main problems that lies at the base of this precarious situation is the low degree of trust granted to independents. Only few reliable independent firms are left, therefore whenever those are willing to sign artists the latter might reluctantly accept a less known firm's offer in fear of its risk of not being able to afford the risk of the possibility of one's failure.

Lastly I asked him how had streaming services changed the practical approach to music: has the product impoverished? Is the process of scouting still used today?

In his opinion, rather than a loss of quality in the product, there has been a loss of quality in the fruition and listening habits. He believes that the increased possibility to produce and promote privately and individually is granting to people who wouldn't have had them, the means and medium to show their talent. Talent shows have taken the place of what was once represented by festivals and the A&R scouting process hasn't changed, "artists still need to learn from the bottom" he says, meaning that before confronting major stages and venues, they need to work in local pubs and that before being signed it is necessary to hear them live because "a record will never play out of tune".

When talking about listening, instead, he says that now music is played everywhere, even when not strictly necessary. It's as if we could not stand the silence, but usually it's kept in the background, or listened through headphones, hampering a full appreciation of the music itself without searching for a high quality of sound. There is an overuse of music, almost making it lose its true nature, losing the use as a real form of art .

UNIVERSAL MUSIC GROUP

2.2.a MAIN INDUSTRIAL STRUCTURE

Universal Music Group founded in 1934 is today, by reaching almost \$7 billion in 2017 in revenues and owning a 29.8% share of the global market the world's biggest record label. UMG group is based in Santa Monica, California and since 2011 it has been bought and is currently owned by the French telecommunication firm Vivendi.

We can differentiate within UMG three major sectors: merchandising, taken care by Merchandising Bravado, publishing, with UMG Publishing and recorded music with UMG Recorded Music. As this originally is a record company, this last branch is by far the most developed and in the firm it plays in fact as "parent" to other five main branches which are Universal Music Enterprises, UMG International which has 39 regional branches, Universal Music Group Distribution and Universal Music DVD Video and UMG label groups which represents all of the smaller labels owned by UMG.

UMG differentiates in three main branches: publishing, recording and merchandising. Differently from the other two majors it has never directly integrated a live music specific firm in its organization, it relies instead on outsourcing agreements with external firms. Big live music firms in fact are today buying venues and creating global networks of promoters and venues all connected to their mother company.

Moreover, in January 2015 UMG has signed a contract with Havas Media, a famous French advertising company that wanted to pair artists with products based on the demographics of fans and affinity to the product. The idea is to retrieve listening information from big data collected by streaming services and later ask the record label which artist would fit best with the product in need of advertising. Universal's Mr. Tunnicliffe has said that working with such a big advertising company which has in the past served firms such as Nike or Mac Donald's, will allow them to over-charge anything they will do for them.

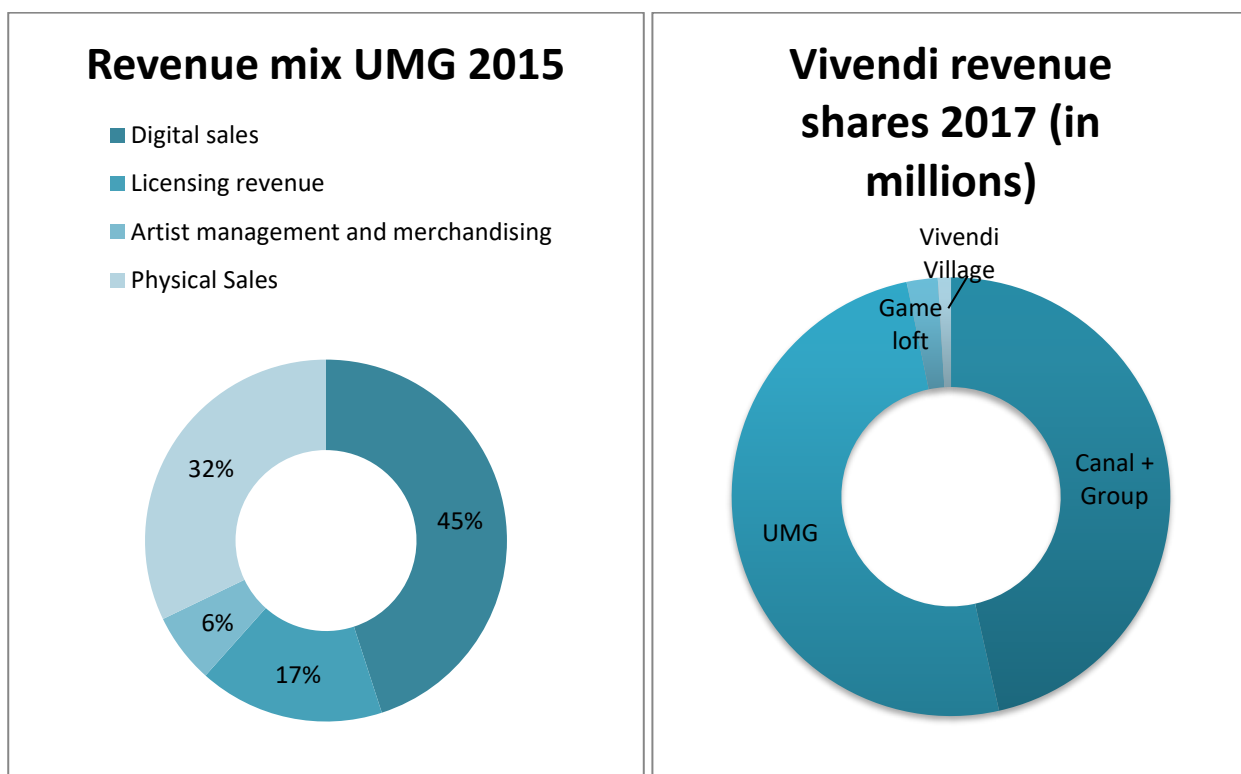
This is clearly an example of differentiation in other activities that Universal undertook as a response to fall in primary revenue inflows.

2.2.b REVNUUE STREAMS AND DISTRIBUTION

When Universal Music Group saw its physical sales fall from €5'900 million in 2002 to €1'400 million in 2015 and when digital sales outdid physical ones in 2013 only reaching to

€2'000 in 2015, it seemed clear that focusing on recording and publishing only would have not been enough to keep the revenues up. Diversification happened for UMG not only at an individual level, some of the novelty was also carried out by its parent company Vivendi. Vivendi entered the live music market indirectly, it has in fact acquired the French Digitick group in 2010 and See Tickets the following year a British ticketing firm who works on international grounds as part of Vivendi Village. Thanks to these acquisitions Vivendi now takes care of important festivals such as Glastonbury and ticketing for the Tour Eiffel and the Palace of Versailles.

As previously mentioned UMG has also entered in merchandising (Bravado) and artist management; these activities combined have accounted for €267 million in 2015 after an increase in €66million in revenue with respect to the preceding year.



(Source: Vivendi, 2015)

(Source: Statista⁹)

⁹ <https://www.statista.com/statistics/194520/revenue-of-vivendi-by-business-segment/>

WARNER MUSIC GROUP

2.3.a MAIN INDUSTRIAL STRUCTURE

WMG is part of the Access Industries a group of companies who stems in various industries such as Media and Entertainment, Natural Resources and Chemical, Venture Capital and Real Estate founded by Russian raised American Len Blavatnik. We shall only focus on the media and telecommunications sector.

There are two main arms in the media and telecommunication sectors ad these are: Warner Music Group and Deezer. WMG has two main leaders which are Warner/Chappell Music Publishing and Warner Recorded Music which are then divided in five secondary firms: Rhino Entertainment, WEA International, Alternative Distribution Alliances, WEA Corporation and WMG label group which is further parted into five different labels which focus on different genres of music from contemporary to classic and jazz, within the names there is also famous ex-indie label Atlantic Records Group.

What is really interesting however is that the group owns Deezer, one of the main streaming platforms, meaning that they've decided to fight the threat of technology by internalizing it within their business model.

2.3.b REVENUE STREAMS AND DISTRIBUTION

Digital sales overtook physical sales for the first time in 2013 and have significantly increased to reach \$1'100 million in 2015 while at the same time physical sales have decreased from \$2'600 million in 2005 to \$767 million in 2015. Licensing revenue also have significant relevance counting for 17.7% of total revenues in 2015.

Since 2005 they have decided to broaden their revenue streams all while constantly increasing and renovating their music catalogue through the acquisition of record companies. Their annual corporate report of 2015 it' stated:

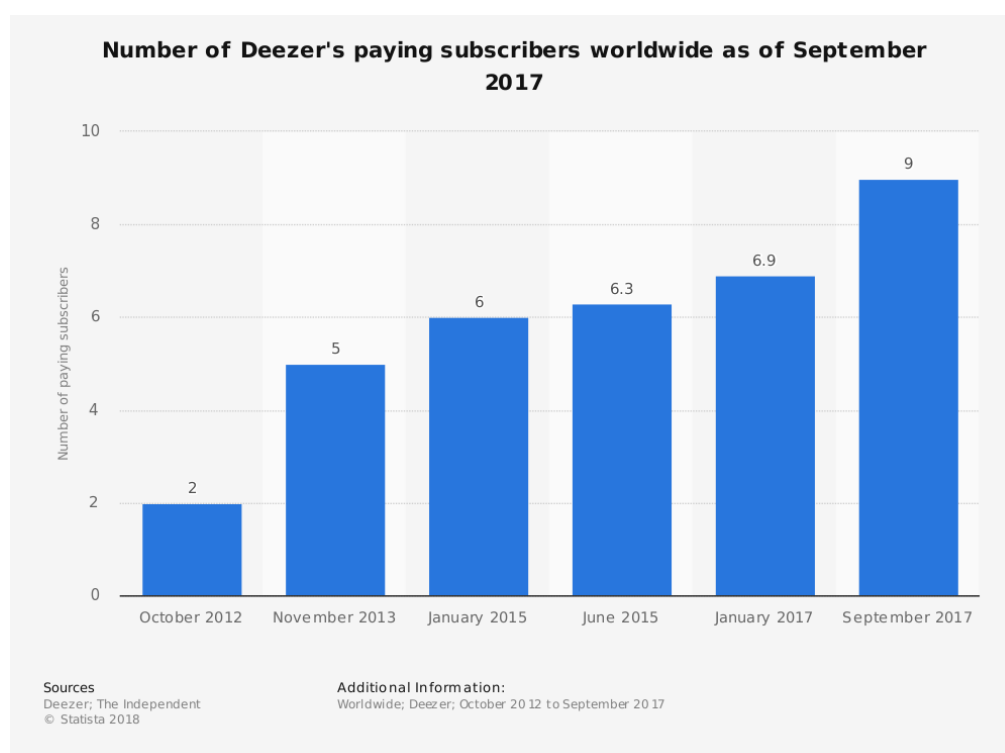
“Our Recorded Music business produces revenue primarily through the marketing, sale and licensing of recorded music in various physical (such as CDs, LPs and DVDs) and digital (such as downloads and streaming) formats. We have one of the world’s largest and most diverse recorded music catalogs, including 30 of the best-selling albums of all time in the U.S. (based on sale of 10 million or more units). Our Recorded Music business also benefits

from additional revenue streams associated with artists, including merchandising, fan clubs, sponsorships, concert promotions and artist management, among other areas. We often refer to these rights as “artist services and expanded-rights” and to the recording agreements which provide us with participations in such rights as “expanded-rights deals” or “360° deals.” [...]”

(Warner Music Corp.¹⁰)

Lately it has drastically reduced its CD manufacturing and physical distribution capacities in clear attempt to move on a more digitalized interface and therefore significantly cutting also production costs.

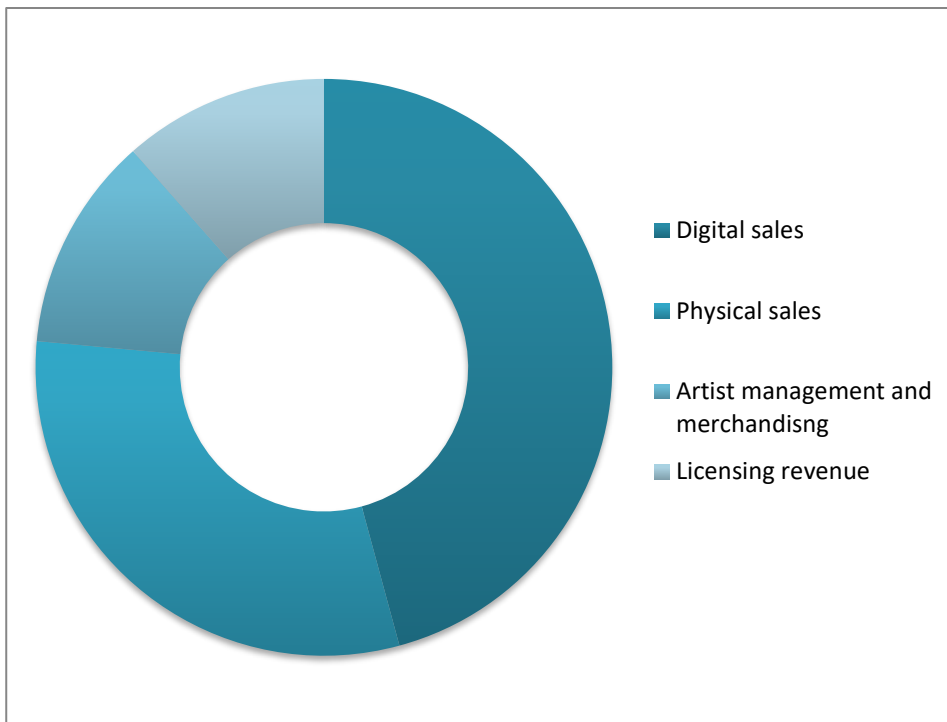
Putting all this together, Warner music, or more generally Access Industry, offers a full service to artists and master rights.



(Retrieved from: Statista¹¹)

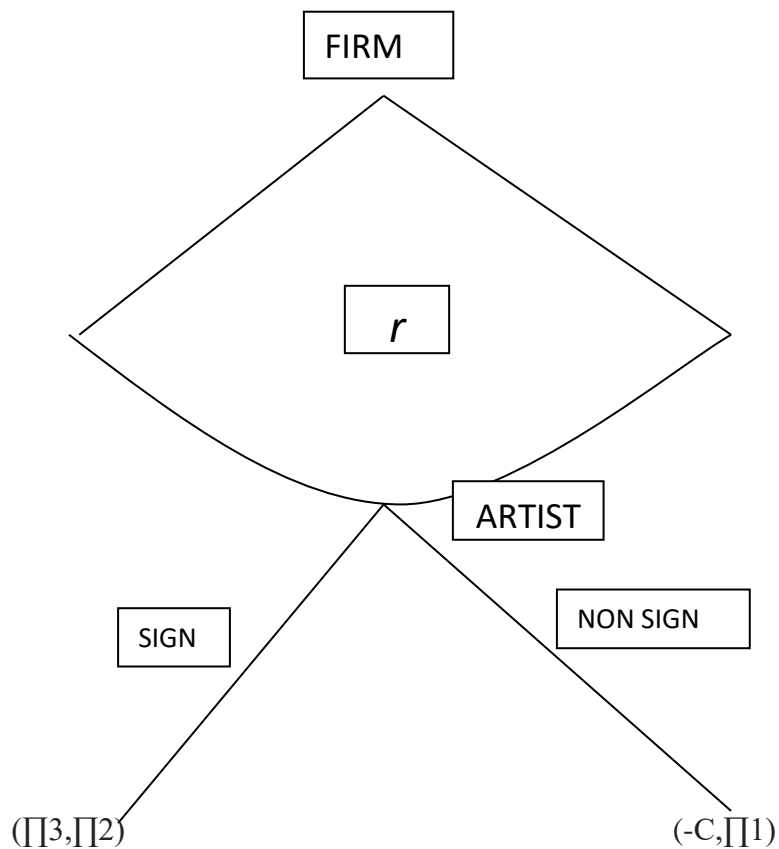
¹⁰ Annual corporate report 2018

¹¹ <https://www.statista.com/statistics/321559/deezer-paying-subscribers/>



(Source: Warner Music Group; Revenue mix WMG 2015)

3.1 WHEN IS IT BEST TO SIGN A CONTRACT?



Players:

Player 1: Firm

Player 2: Artist

Payoff functions:

$$\Pi_1 = (X - \sigma)(p)$$

$$\Pi_2 = (X - \mu)(r)$$

$$\Pi_3 = (X - \vartheta)(1 - r)(p)$$

Assumptions:

- $0 \leq r \leq 1$
- As $x \rightarrow \infty$ then $\sigma \rightarrow \infty$

- As $x \rightarrow \infty$ then $\mu \rightarrow 0$
- If $x \geq k$ then $\theta < x$
- $0 \leq p \leq 1$
- $X > 0$
- As $x \rightarrow \infty$ then $\sigma > \theta$
- $x \geq \mu, \sigma$

3.2 EXPLANATION

The game just presented aims at showing why, after having reached a predefined amount of fame and notoriety it is more convenient for an artist to consider signing with a record label, rather than to keep working independently.

The game is structured as an ultimatum game. This type of model suggests that Player 1, which in this case is played by the firm, will have to choose a percentage of profit sharing Royalties, r , to offer Player 2 in a contract negotiation in order for the latter to accept the bargain.

- **The variables:**

r = percentage of royalties

x = level of artist's fame/talent

σ = costs of production and risk of working individually

p = artist's probability of success

μ = externality representing the possibility of cheating by the firm or of a bad deal

θ = firm's initial endowment and production costs (in the long run the initial endowment will be considered an affordable sunk cost)

k = fixed level of fame that an artist would have to reach for the firm to consider negotiation in the first place

- **Context:**

We assume that negotiation will only start in the case in which an artist has reached a level of fame k . Before this threshold it can be proven that it isn't profitable for the firm to engage into the agreement since the artist will most likely never breakeven the lump sum given by the firm when presenting the contract bargain, through the sale of records, tickets or any monetizing activity. We also consider fame to be positively related with record and concert ticket sale hence, once the level k is

reached, all previous costs incurred to sign the artist can be considered in the long run as affordable sunk costs. Furthermore, firms are now sure to gain benefits from the contractual agreement because, as explained in Rosen's Superstar Theory (1978), artists' revenue will now on show increasing returns to scale that will enhance the more the artists establishes his fame without meeting upper bounds.

All variables, with the exception of r , are to be considered exogenous. It is necessary however to notice that individual costs of production, σ , due to the absence of vertical integration which is present in a firm, increase with x more than they do with θ . Moreover, collaborating with a firm will allow for operating risk to be absorbed by the record label.

Other factor which needs to be highlighted is μ . This variable shows the possibility of cheating, opportunity costs and a bad deal, it is logical to think that as x grows, firms will have a higher incentive in offering fair deals rather than cheat considering the higher probability of success and, still according to Rosen's theory, the increasingly large return given by the bigger market share.

We will also assume that there is no possibility of counteroffer by the artist; the game will only be played once.

- **Preferences:**

Preferences for each player are described from the amount profit gained from the outcome of the deal.

- **The game:**

In order to offer the correct amount of royalties, the firm must proceed through backwards induction. This is a process which entails considering optimal strategies starting from the end of the game and then regress to the beginning to make the initial offer.

We know that an artist will only choose to sign when its profits are greater than those when working individually, by referring to our model, this is given by the situation in which:

$$\Pi_2 \geq \Pi_1$$

By solving for r , we find that this situation will only occur when:

$$r \geq \frac{[(x - \sigma)(p)]}{(x - \mu)}$$

Once this information has been retrieved, the firm will have to decide what will be the optimal amount of r for them to offer.

- If the firm were to offer

$$r < \frac{[(x - \sigma)(p)]}{(x - \mu)}$$

we know that the artist will not sign since its profit from working individually will be lower than the one from collaborating. The firm will consequently incur a loss of $-C$ derived from legal costs and all expenditure related to the search and pursue of the artist.

- If the firm were to offer

$$r > \frac{[(x - \sigma)(p)]}{(x - \mu)}$$

The artist would accept but, for sure, the firm is incentivized to decrease the r so to increase its profit share as much as possible.

In the end in fact, as it is typical of an ultimatum game, the firm will offer:

$$r^* = \frac{[(x - \sigma)(p)]}{(x - \mu)}$$

It is necessary now to take into consideration the value of r . By interpreting μ and σ we can easily see that these two variables are inversely proportional one with the other and that their value is strictly related to x . This happens because as x rises, individual production costs will significantly increase due to the lack of economies of scale and firms' incentives to cheat will instead simultaneously diminish. . It seems reasonable that as an artist rises to fame, the label will try to do its best in order to acquire him/her in its list and will therefore lose the incentives of offering an unfair deal. Moreover, by construction of the model, we have assumed that these two variables are always lower than x .

As previously mentioned the negotiation will only start in the moment in which $x \geq k$ and that r , a percentage of income, will have to be offered accordingly.

We shall consider three different cases to appropriately assess what values r may take:

- $x=k$: When we are in this situation we can assume that μ and σ have the same value. Negotiation will in fact only start at this point since the likelihood of cheating equals individual cost of production and the artist will be indifferent between accepting the contract or working by himself. From a numerical point of view we will have $r=p$ which by construction will be a number $0 \leq r \leq 1$.

- $x > k$: In this case, the two numbers will thus move together in opposite directions. Firm incentive will start to lower while individual costs will rise. This implies that as the numerator, due to the steady increase in σ , will become smaller, the denominator will increase due to the opposite effect in μ which will instead become larger. Even in this case we will end up with a number $0 \leq r \leq 1$.
- $x < k$: If we were to offer a deal before x reached k , the risk of cheating due to lack of interest in signing the artist will be very high while individual production costs will be very low. By assuming that x will always be larger than σ and μ the firm would have to offer a very high level of r which may also be greater than 1, this will be unprofitable for the firm and the negotiation will not take place.

3.3 RESULTS

What I would like to highlight with this test is the necessity for interaction and connection between firms and artists.

The ever competing industry environment and progressive saturation of the market suggests that relying solely on recorded material to base a career on is now not enough.

Through the previously presented diagram I wanted to give basis to an idea for which, after having reached a pre set amount of fame, artists will not be able to carry on individually without bearing significant risk and capital investment. This entails that even though social media, streaming platforms and the development of technology are granting means for people to initially launch their products in the market and gain notoriety, this will not be sufficient to build a consistent career; professional help and firm backing up will not only be pursued but also required.

When relating this idea to the current industry situation, if this model were to be considered reliable, we could assume that it could represent a mean to discredit disintermediation theories. I assume however, that risk could stay for independent firms. Independent firms are smaller, they have less means and usually can only afford to sign emerging acts, new technologies and the presence of music aggregators may put their role in discussion. Once, they used to be in charge of experimenting and finding new genres focusing on niche markets, today, instead, this role can be easily surpassed and be taken on by online platforms. There are already several successful acts that are now signed by majors, who never passed through indies.

Another figure which might also threaten independents are talent shows. Shows such as the XFactor, The Voice, Got Talent and many more are today an important trend, and anyone can access to them. Their advantage is that, by being broadcasted on national televisions worldwide and by being often organized by majors (i.e. XFactor is managed by SYCO Entertainment affiliated

with Sony) they assure huge visibility and contract agreements to amateurs. These programs in fact prize winners with record deals while focusing on creating a fan base from the very start of the show. Given the tight oligopoly that keeps on being present in the industry and the consequent centralization of other adjacent activity industries it seems unlikely that, at least in the long term, these firms might find a way that'll avoid market exit.

CONCLUSIONS

It seems clear that the idea of living only off of “pure” music is not possible any longer; artists have to tour and firms have to keep reinventing and integrating new functions in order to not only avoid resulting obsolete, but also to have constant and consistent revenues. New functions may be including the live music aspects of the industry, investing in promotion campaigns with other firms or merchandizing, with the purpose of providing a most comprehensive service to its clients.

For sure, the future stability and sustainability of streaming services (currently with negative net incomes) is still to be demonstrated, however one could assume that the increasing intervention of record labels in this new part of the industry will most likely help and sustain these platforms by absorbing most of their costs. They are now a focal part of the industry and are not likely to disappear.

Finally, as also demonstrated by the ending theoretical model, collaboration between firms and individuals is almost certainly inevitable if both parties are acting with the purpose of reaching a profit maximizing solution.

The value of the music industry has for sure shifted, modifying fruition methods and public initial impact and interface. However, the traditional forces have not lost their predominance in the market and therefore still play a central role. Majors have been able to adapt, following trends and securing their position when, for a brief moment, people thought that they would soon have been substituted and artists tried to promote themselves autonomously.

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