THE IMPACT OF DIGITAL INNOVATIONS & THE INTERNET ON THE MUSIC INDUSTRY: THE QUESTION OF INDEPENDENT ACTORS

Samuel Solaro
McGill University
samuel.solaro@mail.mcgill.ca

ABSTRACT

In this paper, we analyze the impact of the advent of digital technology and the Internet on the position of independents and the overall market structure of the modern music industry. We hypothesize that there has been a positive relationship between these technological innovations and the opportunities afforded to independents, principally through the lowering of barriers to entry in music production, promotion, and distribution. We analyze the impact of digital innovations and the Internet on the core activities of the music business, as well as the history of the market structure of the music industry, the modern structure of the industry, and the reasons behind past periods of market (de)centralization. Ultimately, we largely reject our initial hypothesis to arrive at a more nuanced conclusion: barriers to entry to many core activities of the music business have been attenuated by innovation, but the music industry remains oligopolistic due to the structural control that major labels exert over the industry and to several extraneous factors (e.g. low market growth).

1. INTRODUCTION

There appears to be a widespread consensus among academics that "since the end of the 1990s the music industry has been confronted with a radical technological change that has effectively called into question the long-successful structuration of the industry that had been controlled by the majors" [7]. But how comprehensive has this restructuration been? Have the majors in fact lost control over the industry? Have independents been empowered? In this essay, we will attempt to gauge whether the digital revolution, and the slew Internet technologies it spawned, has significantly impacted the oligopolistic structure of the music industry and afforded independent actors with increased opportunities. We hypothesize here that drastic technological innovations at the turn of the century did indeed challenge the oligopolistic nature of the music industry by reducing the barriers to entry.

In this paper, we will attempt test our hypothesis, by (1) analyzing the impact of the digital revolution and of the Internet on the core activities of the music industry, (2) understanding the current market structure of the music industry, its history, and proposed causes of market consolidation and fragmentation, and (3) considering the findings of contemporary authors on the subject to ultimately accept or reject our hypothesis.

2. CORE ACTIVITIES OF THE MUSIC INDUSTRY IN THE DIGITAL WORLD

The widespread diffusion of innovative new media technologies has led to disruptive, structural shifts in just about every step of the music industry's traditional value chain: from talent-searching and music production to music distribution and consumption patterns. Here, we will give an overview of the most essential of these transformations, particularly as they pertain to the hierarchical structure of the industry and to the position of independent actors.

2.1 Music Production

Firstly, the digitization of music production has made it such that "the finance and resources required to generate recordings have diminished considerably over the years" [11]. This trend first began with early efforts to digitize music production in the 1970's, and has developed exponentially ever since. Indeed, most scholars concede that recent technological innovations have resulted in the "democratization of production tools" [11].

While artists of yesteryears required costly professional recording studios to produce their work, musicians today need hardly more than a laptop, cheap recording equipment, the appropriate software, and a good work ethic to generate professional-sounding music. Historically, recording studios provided artists with a number of services: access to expensive instruments, to professional recording equipment, to a quality room for recording, and to expert assistance and know-how [11]. Today, the invention and widespread popularization of MIDI technology, along with software capable of digital sound creation, have enabled artists on a low budget to simulate expensive and/or rare instruments, and has provided increased connectivity and exchange. The ever-increasing affordability of the "home studio" has also served to supplant professional recording studios, by providing consumers with cheaper technology. Théberge notes that the advent of the Digital Audio Workstation (DAW) was particularly important, as it "blurred the boundaries between a home studio and professional studio in a way that earlier studio technologies […] promised but failed to do." Harris in turn notes that "the latest laptop computers are powerful enough to make them a viable alternative to the power of the personal studio" [21]. Lastly, we can argue that the necessity for the precious expertise provided by studio technicians in the past has been challenged by the Internet's natural propensity for the free and open exchange of information. Blogs, magazines, video channels, or forums specializing in enabling low-budget music recording and production are numerous – all of the necessary information is there for the taking.

Therefore, we can argue that new media technologies have considerably lowered barriers to entry for music production. Cheaper and more accessible technology, along with the increased exchange of information, has rendered traditional models of music production – models that were inherently closed to independent actors due to their high financial costs and difficulty of access – obsolete. Thus Harris states that "as the cost of production tools declines and the sound quality from low cost hardware and software improves, independent artists are realizing that they do not need to have a massive budget to create high quality mixed and mastered music" [11]. We can then conclude that, with regards to music production, the development of digital music production tools and new media technologies have played in favor of independent actors.

2.2 Music Distribution & Consumption

The digital revolution first impacted music distribution in the 1980's with the invention and massive commercialization of CD's, which granted the music industry exponential growth [16]. At the time, the concentration of power in the music industry made it such that the distribution strategies of major labels operated through hierarchically organized networks and channels, often hermetic to independent actors; as a result, "new entrants were unable to access national and international distribution […] which limited the extent of competition" [11]. These high barriers to entry in turn ensured stable profits to the majors. But the advent of the CD signaled a crucial shift in the fundamental economic functioning of the music industry: music was beginning to be treated as a digital good, i.e. one that is "nonrival, infinitely expansible, discrete, aspatial, and recombinant" [17]. This transition would eventually lead to a complete overhaul of the way in which music is distributed and consumed, although its full impact was slow to be felt. This is because distribution strategies are contingent upon the medium of consumption – i.e. the material or immaterial form through which the end product is presented to the consumer – and the consumption patterns inherent to that medium. And while CD's indeed were digital goods, their medium of consumption – the actual disk – remained tangible, and as such the industry's models of distribution remained valid, much to the benefit of the majors. But the digital nature of CD's was already creating a shift in consumption patterns, as the lack of copy protection made it possible to "copy digital media from physical recording devices without any loss in quality" and without "any use restrictions pertaining to these copies" [7]. These models were ultimately turned on their heads by the standardization of compressed audio file formats and the establishment of the Internet "as the ideal medium for the global exchange of these sorts of products" [7]. These technological innovations effectively forced music distribution away from physical retail channel strategies and towards digital distribution and consumption. This resulted in a loss of control for major labels that is epitomized by the rise of peer-to-peer file sharing in the late 1990's and early 2000's [7]. This initially led to a substantial decrease in industry revenues, but the introduction of digital stores (e.g. iTunes) in the early 2000's enabled a slow recovery. Furthermore, the eventual shift towards streaming services in recent years has enabled the industry to grow once more, with the music industry showing positive growth rates for three consecutive years [10]. In fact, as of 2018, streaming revenues in the US surpassed physical revenues for the first time [10], signaling the arrival of a new era for the music business.

Nevertheless, the loss of control exerted by major labels over music distribution endures, to a certain extent. Firstly, "digitization and internet technology has tremendously reduced distribution costs," which has naturally lowered barriers to entry for independents lacking the funding of major labels [15]. The sheer number of digital music distributors available for minimal or no cost to the artists are a testament of this. The number of popular online music platforms which do not require any intermediary for uploading content is further proof of how non-exclusive music distribution has become. YouTube – the second most visited website in the world – is the obvious example, but other platforms such as SoundCloud and Bandcamp have also been popular outlets for independent actors. Further, Gaffney & Rafferty argue that the Internet and digital distribution have greatly facilitated the discovery of lesser-known independent artists, which in turn has bolstered the profitability of the Long Tail strategy employed by independent actors [9]. However, concerns arise regarding the scalability of these strategies. Many independent labels or artists lack the infrastructure to compete globally, such that the majority of them use major labels or major label-owned distributors for their own distribution [23]. Thus, despite the impact of the Internet and other digital technologies, it appears as though the majors have yet to fully release the tight grasp they hold over music distribution.

2.3 Music Promotion

The democratization of digital innovations has also greatly impacted the ways in which music is marketed and promoted to audiences. Whereas in the past, major record labels relied on traditional promotional channels such as ad placement, radio, and print media, music promotion has increasingly moved to the digital realm, with an increased focus on social media marketing in recent years. This of course began in the mid-2000's with the ascension of MySpace, and has intensified accordingly with the growth social media and the Internet in general. "Facebook, YouTube, internet blogs and other social media are now perceived as key intermediaries," whereas "traditional intermediaries such as radio and the music press are perceived to carry a decreasing level of significance" [20]. Harris argues that "music marketing has always been and will always be about exposure and discovery" [11]. In many ways, this serves to explain why the Internet is so rapidly supplanting traditional models of music promotion. The methods of exposure and discovery of the past – radio, TV, magazines, word-of-mouth – pale in comparison to the Internet's ability to generate and sustain "content that is relevant to everyone" [11]. Consequently, consumers are increasingly "venturing to the Internet to access, discover, share, purchase and download music," at the expense of traditional mass media, which is an intrinsically poorer discovery tool [11]. "Discovering and locating independent music has always been a relatively difficult practice," but "these challenges for discovery have been greatly alleviated through the Internet and digital distribution" [9].

The key characteristic of many of these new media platforms (e.g. social media) is that they are non-excludable: there are no barriers to entry. They are, for the most part, free and open platforms, accessible to any aspiring musician or up-and-coming record label. Conversely, traditional mass media was (in a similar vein to distribution models) exclusively available to major labels: "through control and programming commercial radio had successfully blocked independent artists from attaining any significant amount of airplay" [10]. This means that "the various platforms for promotion and distribution of music that now exist on the internet have enhanced opportunities for independent artists pursuing a 'do-it-yourself' approach" [16]. Speaking on independent artists, El Gamal argues that "the Internet has offered new strategies for artist promotion and marketing allowing them to easily distribute music to a greatly expanded audience" [8]. Interestingly, platforms intended for promotion and those intended for distribution are becoming increasingly blurred. YouTube, for instance, is both a promotional and a distributional tool. Livestreaming performances on Facebook – primarily considered to be a promotional platform – has become a popular marketing tactic. Spotify is primarily seen as a distribution channel, and yet contains certain elements of conventional social media platforms which enable promotion; the curation of playlists by artists, or of collaborative playlists in which both the artist and his or her fans can engage, is one example. Moreover, the use of social media as a promotion (and distribution) platform has also lessened the distance between artists and their fans, enabling a more close-knit relationship. Carboni argues that "digitization has also made it possible for artists and consumers to be closer to each other, through social media tools" [5] This, in turn, has heightened the capacity of promotional tactics to resonate with their intended audiences, and has contributed to the ease of discovery and exposure of independent artists.

Nevertheless, in a similar vein to our discussion of distribution, Preston & Rogers argue that "mass market distribution as well as the marketing and promotion resources necessary to sell records in the 'mainstream' are still largely only attainable through a major label" [16]. It appears once more that major labels have not entirely relinquished control over music promotion in the digital age.

2.4 Music Pricing & Financing

Lastly, the Internet has allowed for new and innovative models regarding financing and pricing in the music industry. Crowdfunding, the use of "a platform from which an artist requests money for a specific project" [5], has emerged as an alternative way for independent artists lacking the financial backing of a major label to finance themselves and their work. Carboni argues that "the emergence of crowdfunding as a business model is the result of the ability via the Internet of bridging closer ties between artist and fan base," echoing our similar discussion on social media [5]. Harris shows that a number of independent artists have been able to finance entire albums through platforms such as Kickstarter or PledgeMusic [11]. Oftentimes, artists will incentivize their audience to contribute financially by offering rewards, such as signed copies of their work.

Pricing has also been greatly impacted by the digital revolution. The proliferation of peer-to-peer file sharing at the turn of the century was devastating to the music industry's traditional pricing models, as consumers could now obtain music freely if they desired. The arrival, and eventual dominance, of subscription-based streaming platforms did much to rekindle consumers' interest in paying for music, giving a bleeding industry the second wind it so direly needed. However, there have been increasing concerns among the music community regarding the minimal revenue that artists themselves obtain from streaming [13], particularly if the artist in question isn't very well known. As such, artists (many of whom are independents) have begun to search for new solutions.

The vast array of new business models offered by digital technology has allowed artists to experiment with innovative pricing strategies. This flexibility has been crucial to their survival, particularly given the difficulty in reaping significant revenues from today's predominant distribution channel: streaming. The Pay-What-You-Can (PWYC) model, which first grabbed mass media attention with the release of Radiohead's album "In

Rainbows" in 2007, has been used by independent artists to varying degrees of success. A significant aspect of Radiohead's release was that it was done independently of any record label: they simply released their album online, directly to their fans, with a PWYC pricing scheme. For Carboni (2014), Radiohead's "In Rainbows" strategy "demonstrates clever use of internet technology in order to reach an existing fan base and encourage a new one through the (zero) price model" [5]. Bielas further argues that the success of Radiohead's strategy was "a huge loss for record labels and their position within the music industry," serving as a symbol of their loss of control [3]. Regardless, Bandcamp continues to offer PWYC pricing schemes, which are often used by independent artists. Further, independent artists are also increasingly opting to release their music entirely for free through digital channels. This (zero) pricing approach serves as a promotional tool by attracting a larger audience. Given the aforementioned importance of exposure and discovery for independent artists, this appears to be a sensible strategy. Moreover, in the face of low streaming revenues, artists are utilizing this model to market their live performances, which are seen as being more profitable [7]. It should be noted that this model can be manifested in two ways: artists can offer free download of tracks, or (more commonly), artists can offer free streaming of tracks online, with an option to purchase a digital download. Websites such as Bandcamp, YouTube, and SoundCloud are common platforms through which the second option is iterated.

2.5 Conclusion

Overall, we conclude that digital technology and the Internet have undoubtedly revolutionized the way in which music is or can be produced, distributed, promoted, consumed, priced, and financed. Whether or not these changes have in fact led to a significant loss of control for the majors and to increased opportunities for independents is less evident. While barriers to entry have never been lower, and independents today have greater access to the music industry than ever before, it appears that majors retain exclusive control over large-scale distribution and promotion, effectively shutting independents out of the mainstream.

3. MARKET STRUCTURE OF THE MUSIC INDUSTRY

In this section, we will broadly analyze the market structure of the music industry. First, we will give a brief recount of the history of the industry, and of its periods of consolidation and fragmentation. Second, we will give an overview of the current state of the industry. Third, we will analyze various academic findings to discern possible causes of market fragmentation and consolidation.

3.1 History of the Industry

The foundations of the modern recorded music industry were laid in a series of technological innovations in the late 19^{th} and early 20^{th} century. The phonoautograph, the phonograph, the gramophone, and the Victrola were all pioneered during this period, and were important precursors in the massive technological change that was to come. As of 1909, the market was very concentrated, and was controlled by only three firms: Edison, Columbia, and Victor [1]. Scholars have however identified the following decade as one of market decentralization, with various environmental factors leading to increased competition by independent firms [1] [2]. But until the 1920's, the market remained relatively small, due to the lack of sufficient standardization in recording and playback technology. The adoption of the electric record player at 78 RPM in the 1920's, along with other technological innovations, led to a "shift from musical recreation [...] to an emphasis on listening to recordings or broadcast performances" [4]. Throughout the decade, "record players and discs had become standardized [...] to permit several companies to produce compatible equipment on a mass scale. Radio broadcasting of music developed [...] to become a popular source of domestic entertainment" [4]. In this period, the market fragmentation of the 1910's was halted as "various factors led to a renewed concentration" [2].

Ultimately, the introduction of vinyl records in the 1940's, coupled with the intense economic growth and propensity for entertainment of the postwar period, turned the recorded music industry into a highly prosperous business. The oligopoly that formed in the late 1920's endured throughout the 1930's and early 1940's, albeit with some personnel change. As such, at the end of WWII, the industry was controlled by four "majors": RCA Victor, Columbia, Decca, and Capitol. As of 1949, these four firms produced 89% of the hit singles, with the four next biggest firms accounting for the remaining 11% [14]. However, "the percentage of sales controlled by the 'majors' slipped between 1948 and 1955, presaging a major decentralization of record sales by the late 1950's" [4]. Azenha indeed notes that this period was marked by a "decentralization of control over music markets with independent labels supplanting the power of established labels from about the late 1940s until the early 1960s" [2]. In 1959, the majors produced only 34% of all hit singles released; where in 1951, the aggregated weekly top ten charts featured songs distributed by 8 different firms, this number rose to 42 in 1959 [14]. By 1962, independent firms held a 75% market share of total industry revenues [1].

The late 1960's and early 1970's were an era of recentralization, with many of the labels that had emerged in the late 1950's consolidating their position and buying out independent labels. Indeed, as of 1973, the top four firms – Warner, Capitol, Columbia, and Motown – produced 57% of all hit singles, as opposed to 26% in 1963 [14]. This was a period of important mergers and acquisitions, a practice which continued throughout the 1970's.

Many major labels began to "absorb their most successful and profitable competitors [2]. By the late 1970's, the market was dominated by five majors: Columbia, EMI, Warner, Polygram, and MCA. This trend towards consolidation continued for the rest of the 20th century. The "merger mania" of 1985-2000 "resulted in the music industry's highest market concentration since the 1940's" [22]. Moreover, Tschmuck argues that the high industry growth rates generated by the introduction of CD's in the early 1990's "accelerated the process of acquisitions and mergers" [22]. As of 2000, the music industry was controlled by five majors: Sony, Bertelsmann, EMI, Warner, and Universal.

3.2 Structure of the Modern Industry

Two significant mergers occurred since the turn of the century: Sony bought out Bertelsmann (with whom they already had a 50-50 joint venture) in 2008, and Universal acquired EMI in 2014. This means that the contemporary music industry appears to suffer from extreme concentration, with only three majors – Universal, Sony, and Warner – controlling the market. As of 2016, these three firms commanded a 73.1% share of worldwide music revenues, leaving independents with 26.9% [6].

It is however important to note that this figure pertains to revenues stemming from music *distribution*, not music ownership, an approach that tends to underestimate "the true scale of the independent music market" [23]. This is because, as was mentioned in our analysis of modern music distribution, many independents lack the infrastructure for international distribution, leaning on intermediaries owned by major record labels, or on major record labels themselves, for their distribution. In fact, with regards to ownership of copyrights, independent labels have consistently held a worldwide market share of over 30% in the last decade [18]. In the aftermath of the dissolution of EMI, independents peaked in 2016 with a 36.2% share of worldwide revenues stemming from music publishing and copyright ownership [18]. The discrepancy between independents' share of revenue stemming from distribution and ownership is the result of a broader phenomenon within the industry, to which we alluded in the conclusion of part one. While digital innovations and the Internet did cause disruptive structural shifts in the way the industry is organized, many core revenue-generating activities – such as large-scale, global distribution – are still exclusively available to major labels.

3.3 Causes Behind Market Consolidation

We have seen that there have been two principal periods of decentralization in the music industry: that of the 1910's and of the 1950's. Conversely, the 1940's and the 1980's-1990's were periods of intense consolidation. We will now investigate if periods of market fragmentation can be conclusively linked to disruptive technological innovations. If there exists convincing evidence, implying that the digital revolution could in fact signal a decentralization of the music industry, then our initial hypothesis will be strengthened. Conversely, we will look at the factors that led to such high levels of market concentration in the aforementioned periods.

Alexander argues that "new production and manufacturing technology facilitated both significant waves of entry (the second half of the 1910s and 1950s), by lowering production costs and the minimum efficient scale of production" [1]. He argues that the intense concentration of 1890-1909 was largely due to patents held by the three majors (Victor, Edison, & RCA), which "proved to be a substantial barrier to entry" [1]. Moreover, the substantially high cost of producing and reproducing recorded music served as an additional barrier. However, a wave of technological innovations – which drastically lowered production and manufacturing costs – coupled with the expiration of important patents in 1914 allowed for "the entry of many new firms, and a dispersion of market share" [1]. For Alexander, the second period of fragmentation can also be traced back to technological innovations – namely, the introduction of magnetic tape recording in 1950 [1]. Magnetic tape recording was significant because it (1) reduced costs directly, and (2) "induced indirect cost reductions by providing an easy way to edit musical performances and thus reduce the time spent rerecording music" [1]. Alexander concludes that this technology, coupled with the introduction of innovative products (e.g. rock 'n' roll), was responsible for the rise of independents in the 1950's [1].

Alexander's arguments fall in line with the vision of technological determinism – i.e. that technological developments are uniquely responsible for the evolution of social, economic, or cultural norms. However, other scholars have upheld different views. Azenha argues that "technologies did indeed facilitate decentralization in these periods, but only because various social, economic and political conditions permitted it," viewing technology as "one element in a broader process of socio-technical change" [2]. He argues that market growth, for instance, plays a large role in periods of decentralization, noting that "under conditions of growth there are more opportunities for new actors and those on the margins of the industry to exploit" [2]. And indeed, both periods of market fragmentation were periods of intense industry growth. However, growth alone cannot stimulate decentralization – as was previously stated, Tschmuck argued that the intense growth of the early 1990's in fact contributed to greater consolidation [22]. Azenha himself remarks that although growth may increase the likelihood of decentralization, when "combined with technological innovation [growth] can also facilitate accumulation of power and capital among those larger, established operations that benefit from economies of scale and/or maintain important gate-keeping functions" [2]. Azenha further remarks that "the decentralizing potential of technologies is also mediated by the ways in which the music industry is organized and the ways in which the different aspects of the music industry (i.e., production, manufacturing, distribution, promotion and marketing) are controlled and interrelated" [2]. This means that "technologically-facilitated decentralization in one aspect of the music industry may not lead to industry-wide decentralization if other aspects of the music industry remain tightly controlled and exclusive" [2]. He points to the invention of multi-track recording in the late 1960's, which led to decentralization in music production but did not thwart the overall trend of market concentration as record labels were consolidating their distribution channels, as an example [2]. Lastly, Azenha (2006) points to the fact that both periods of fragmentation were intrinsically temporary, in that major labels, through both vertical and horizontal integration, were ultimately able to retain control over the core value-inducing activities of the industry [2].

What of periods of market consolidation? Peterson & Berger offer a compelling analysis of the centralization of the late 1940's and early 1950's. They argue that, in this period, "oligopolistic concentration of the record industry was maintained by control of the total production flow from raw materials to wholesale sale" [14] – i.e. through vertical integration. Moreover, the four majors were able to exert absolute control over merchandising through their corporate links with radio and movie firms, and over distribution through the monopolization of various distribution channels [14]. Imitation was also a popular practice at the time: major record labels would cover popular independent singles in the hope of coopting their success, thereby ensuring market dominance [14]. In the second period of concentration in the 1970's onwards, major labels would double down on this tactic by outright purchasing independent labels and integrating them into their own business.

Furthermore, Peterson & Berger present a broader argument regarding oligopolistic industries: that the music industry (among others), follows a specific, cyclical pattern. This cycle "consists of a relatively long period of gradually increasing concentration and homogeneity followed by a brief burst of competition and creativity" [14]. This view supports and validates Azenha's prior argument regarding the temporary nature of periods of fragmentation. Lastly, it is important to note that economies of scale in production, distribution, and promotion, are seen as a powerful tool in fostering market concentration [14]. Moreover, large firms benefiting from these economies of scale can effectively block out competition, even when the conditions for decentralization are present (e.g. technological innovation, high market growth) [2].

3.4 Conclusion

In this section, we identified the principal periods of market consolidation (1900-1909, 1948-1955, and 1970 onwards) and of market fragmentation (late 1910's and the late 1950's and early 1960's) and outlined the market structure of the modern industry. An analysis of current market share distribution among the majors and independents shows that the industry still operates as an oligopoly, with just three firms dominating the market. However, this domination is more pronounced when considering distribution revenues rather than revenues stemming from copyright ownership. Further, we discussed various arguments regarding the causes of past periods of consolidation/fragmentation, and we conclude that Alexander's argument of technological determinism is insufficient. Azenha's argument, which takes into account market growth and the pre-existing organization of the industry, is far more compelling. Peterson & Berger's arguments are convincing as well, and offer interesting insights regarding the state of the current music industry.

4. DIGITAL TECHNOLOGY & THE INTERNET: EMPOWERING INDEPENDENTS?

We now return to our initial problem: have digital technologies, and in particular the democratization of the Internet, significantly altered the structure of the modern music industry and provided independents with increased market opportunities?

4.1 Market Share Analysis

First and foremost, it is important to note that, on paper, the music industry most certainly still is an oligopoly. As of 2016, three firms accrued 73.1% of worldwide revenues stemming from music distribution and 68.7% of revenues stemming from copyright ownership [6] [18]. This is smaller than the market share majors possessed in periods of intense centralization (the four majors held 89% of total industry revenues in 1949 [19]), but far too high for us to consider the contemporary music industry as undergoing a process of decentralization. In comparison, the 75% market share of total industry revenues held by independents in 1962 dwarfs the share possessed by independents today [1]. However, there have indeed been significant fluctuations in the market share held by independents since the popularization of digital technology and the Internet in the late 1990's. Azenha points to IFPI data to remark that in the period of 1999-2004 – a period of great tumult for the majors – the market share of worldwide sales held by independents indeed increased from 22.5% to 28.5% [2]. And yet he later points to Nielsen Soundscan data to conclude that, in the period of 1999-2006, there has been a negligible in the market share of independents in the US, despite heavy fluctuations [2]. Further data analysis will prove to be difficult here, given the differences between regional and worldwide market share, between market share of sales revenues and ownership revenues, and between various methods of market share calculation. Incomplete industry data, particularly in the past two decades, is also a hindrance. Nonetheless, it should suffice to conclude that while the modern music industry is nowhere near the intense levels of concentration observed in the late 1940's and early 1950's, it does not appear to be in a process of *significant* decentralization. Moreover, the period of intense structural change in the late 1990's and early 2000's led to worldwide decentralization but to no change in market structure in the US.

4.2 Preconditions for Future Decentralization

Nevertheless, can we argue that the modern era possesses the necessary preconditions for a process of intense decentralization to occur in the near future? Most authors agree that technological innovation can serve as a catalyst for market fragmentation [1] [2] [11] [14]. The wave of digital innovations that has inundated the music business in the last 20 years (and that continues to do so) surely qualifies as one that should, in theory, be disruptive enough to cause such change. But the other preconditions outlined by Azenha appear less conducive to decentralization. The condition of high market growth, for instance, is categorically unsatisfied. While the widespread adoption of music streaming services enabled the music industry to show positive growth rates for the third consecutive year in 2018, this follows a period of fifteen consecutive years of industry decline [10]. Moreover, despite the fact that industry growth in 2018 was the highest it has been in this 2000, at 8.1% [10], these numbers pale in comparison to the explosive growth of previous periods of decentralization. For instance, between 1955 and 1959, the music industry grew by *261%* [14]. Consequently, while the current positive trend is an encouraging one for independents, it remains as of 2018 insufficient to guarantee significant decentralization (particularly given that, as Tschmuck points out, growth alone does not secure deconcentration). Analysis of the precondition regarding the organization of the music industry yields similarly discouraging results. Where Azenha gave the example of the inability of multi-track recording to significantly impact the consolidation of distribution channels in the late 1960's, a similar phenomenon may be occurring today. One area of the music business that has been unquestionably democratized by digital innovations is music production. But have innovations in this field been sufficient to endanger the majors' control over promotional and distributional channels? We have already seen that the majors have restricted the ability of independents to access international distribution and promotion. This is reflected in their inability to access international distribution without intermediation through the majors [22] and in their inability to coordinate marketing tactics capable of convincingly reaching the mainstream [15]. Furthermore, while our market share analysis above showed reason to believe that there was at least *some* worldwide market decentralization in the late 1990's and early 2000's, the stagnancy of worldwide independent market shares in the past ten years [6] [18] falls in line with Azenha's argument that decentralization is inherently temporary. Peterson & Berger's claim that the music industry follows a cyclical pattern of long stretches of centralization followed by short-lived outburst of decentralization are also echoed here.

4.3 Have the Majors Lost Control?

We can also compare the practices of the majors today to those of major labels of the past to discern if they are exercising oligopolistic control over the market by implementing strategies that are heightening barriers to entry and disempowering independents. Peterson & Berger describe the late 1940's and early 1950's as a period of intense vertical integration, with the majors exerting tight control over every step of the value stream [14]. Do the majors today exercise similar control? It appears that no; the majors have in fact surrendered some control over certain aspects of the value chain. Music production, as was previously mentioned, is one such aspect. Additionally, while music distribution and promotion on a large scale remains hard of access for independents, we could argue that small scale distribution has been greatly facilitated by digital innovations and the Internet. The popularity of distribution platforms that do not require any intermediary are proof of this. Furthermore, new models of distribution and promotion (as well as pricing and financing) based on new media tools are constantly being innovated by independent artists, albeit to varying degrees of success. This leads us to believe that, while still dominant, the majors do not exert the same amount of control over the industry as they did in the past. Majors have also lost power to third party intermediaries. Whereas in the era of physical distribution major labels had a great amount of control over the distribution process and pricing, new models of digital distribution (streaming, digital downloads) have been pioneered by third part intermediaries (Spotify, iTunes) and are less subject to the dominance of the majors. Similarly, while the majors used to benefit from exclusive deals with traditional media companies (e.g. TV, radio), digital marketing tools, and social media in particular, are by nature much more open. The majors cannot sign deals of exclusivity with Facebook, or YouTube. At most, they can simply spend a lot of money in it, which is still obviously a huge advantage for them, but less so that what they enjoyed in the past.

Nonetheless, one way in which the majors still dominate the marketplace is through their ability to coopt the success of independent labels – much like they did in the early 20th century through imitation and covers. The mergers and acquisition of throughout the second half of the 20th century was an example of this, but more recently the majors have made a habit of offering lucrative deals to successful independent artists (or artists signed to independent labels). The late Mac Miller, an indie hip-hop hero whose 2011 album *Blue Slide Park* was the first chart-topping, independently released debut album since 1995, is an example of this strategy. After rising through the ranks with his independent label, Rostrum Records, Mac Miller eventually created his own label in 2013, which was then bought out by Warner in 2014, effectively ending his indie career. Hip-hop artists Future similarly gained fame in the late 2000's through a series of independently released mixtapes before being signed onto Epic Records, a subsidiary of Sony Music. This is far from a new tactic, and has been used by the majors for decades. Indeed, independent artists and labels have often been at the heart of musical experimentation and innovation, pioneering new genres and forms of musical expression (Dolata, 2011). But major labels have always been quick to exploit this success, acting "not as first movers but as second exploiters," being able to coopt indie success through "their production and market dominance" [7]. One could argue that the Internet and digital innovations have lessened this dominance. Chance the Rapper, a fully independent artist who has self-released two critically and commercially acclaimed mixtapes, is a beacon of hope for independent artists. It must be recognized that Chance the Rapper's success could never have occurred in the pre-digital music industry, as his means of distribution – free streaming or digital downloads – are examples of the increased opportunities afforded by the Internet. But even in our digital world, all evidence points to his success being more of an anomaly than growing trend. Consequently, we see that major labels continue to coopt the success (and innovation) of independents today, although they perhaps lack the same market dominance as they once did, and thus do so somewhat less effectively.

We can then conclude that the digital revolution has, in fact, lessened the control that the majors exert of certain aspects of the industry. That being said, we could also argue that much of this lost bargaining power was passed onto third party intermediaries (digital distributors, streaming services, and digital marketing platforms) rather than to independents directly. Nonetheless, independents have benefited from this indirectly, in that it has for the most part lowered barriers to entry to music distribution and promotion.

4.4 Conclusion

Where then, does this leave our original hypothesis? It has become apparent that our initial question requires a far more nuanced answer than our hypothesis – i.e. drastic technological innovations at the turn of the century challenged the oligopolistic nature of the music industry by reducing the barriers to entry – provided. First and foremost, we conclude that digital innovations and the Internet did, in fact, reduce barriers to entry for independent musicians, but only did so *significantly* with regards to music production and small-scale distribution and promotion. Increased access to innovative pricing and financing solutions have been an encouraging development, but the gargantuan budgets of major labels still dwarf these efforts. Furthermore, as we have seen, large-scale, international distribution and promotion still remains by and large controlled by the majors, such that most independents are still excluded from the mainstream. Additionally, independent showing promising signs of commercial success will likely be signed or see their label bought out by one of the majors (or one of their subsidiaries). Azenha and Peterson & Berger's claim that periods of decentralization are inherently temporary is valid, as the initial period of destabilization (late 1990's, early 2000's) allowed independents a larger worldwide market share, and this increase eventually tapered off. But there is a crucial difference here: the market share of independents hasn't significantly receded since. Rather, it has stayed in the region of 25%-35% since the initial disruptive shift. We hypothesize that this is due to the industry power that was given to third parties, which has lessened the power of the majors and prevented them from obtaining incredibly large market shares (as they did in the late 1940's and early 1950's).

In conclusion, our initial hypothesis contained some true claims, and some untrue ones. The barriers to entry for independents have, in some aspects, been lowered. The digital revolution did, and continues to challenge the oligopolistic structure of the industry. Nevertheless, the oligopoly endures, and has endured throughout two of the most tumultuous decades of its existence. Moreover, the structural control that Warner, Sony, and Universal still yield over the market means that it is quite unlikely that the oligopoly will be shattered in the near future (as it occurred in the late 1950's). Despite this, independents today enjoy more opportunity than they have had since the mid-60's, and future developments – such as increased growth due to music streaming – may play in their favor.

5. REFERENCES

[1] Alexander, Peter J. "New Technology and Market Structure: Evidence from the Music Recording Industry." *Journal of Cultural Economics* 18 (1994): 113-23. https://doi.org/10.1007/BF01078934.

[2] Azenha, Gustavo. "The Internet and the Decentralisation of the Popular Music Industry: Critical Reflections on Technology, Concentration and Diversification," Radical Musicology 1 (2006): 125 pars. http://www.radical-musicology.org.uk/2006/Azenha.htm

[3] Bielas, Ilan, "The Rise and Fall of Record Labels" (2013). CMC Senior Theses. Paper 703. http://scholarship.claremont.edu/cmc_theses/703.

[4] Brackett, David. *The Pop, Rock, and Soul Reader*. 3rd ed. New York: Oxford University Press, 2014.

[5] Carboni, Marius. "The Digitization of Music and the Accessibility of the Artist." *Journal of Professional Communication* 3, no. 2 (2014): 149-64. https://uhra.herts.ac.uk/handle/2299/14367.

[6] "Digital and Physical Revenue Market Share of the Largest Record Companies Worldwide from 2012 to 2016." Statista. 2016. https://www.statista.com/statistics/422926/record-companies-market-share-worldwide-physical-digital-revenues/.

[7] Dolata, Ulrich. *The Music Industry and the Internet: A Decade of Disruptive and Uncontrolled Sectoral Change*. April 2011. SOI Discussion Paper, University of Stuttgart, Stuttgart. Retrieved from http://www.uni-stuttgart.de/soz/oi/publikationen/soi2_dolata_music_industry.pdf

[8] El Gamal, Ashraf, "The Evolution of the Music Industry in the Post-Internet Era" (2012). CMC Senior Theses. Paper 532. http://scholarship.claremont.edu/cmc_theses/532.

[9] Gaffney, Michael, and Pauline Rafferty. "Making the Long Tail Visible: Social Networking Sites and Independent Music Discovery." *Program* 43, no. 4 (2009): 375-91. http://dx.doi.org/10.1108/00330330910998039.

[10] "Global Music Report 2018." IFPI. April 2018. https://www.ifpi.org/downloads/GMR2018.pdf.

[11] Harris, S. K. (2010). *Indie empowerment: New media strategies and the rise of the independent artist* (Order No. 1485933). Available from ABI/INFORM Collection. Retrieved from https://proxy.library.mcgill.ca/login?url=https://search.proquest.com/docview/750082648?accountid=12339.

[12] Kirby, Philip Ronald. "The Evolution and Decline of the Traditional Recording Studio." Master's thesis, University of Liverpool, 2015. September 2015. https://livrepository.liverpool.ac.uk/3000867/1/200488719_Sept2015.pdf.

[13] Krukowski, Damon. "Making Cents." *Pitchfork*, November 14, 2012. https://pitchfork.com/features/article/8993-the-cloud/.

[14] Peterson, Richard A., and David G. Berger. "Cycles in Symbol Production: The Case of Popular Music." *American Sociological Review* 40, no. 2 (April 1975): 158-73. https://www.jstor.org/stable/pdf/2094343.pdf?refreqid=excelsior:5bfe0fa8108fca92e545af20ba4d84e3.

[15] Prabha, Susy Mathew. "Case Study: Impact of Digitization on Music Industry in Recent TImes." *International Journal of Management and Social Sciences Research (IJMSSR)* 2, no. 9 (September 2013): 12-13. Retrieved from https://www.academia.edu/5370622/Case_Study_Impact_of_Digitization_on_Music_Industry_in_the_Recent_Times.

[16] Preston, Paschal and Jim Rogers. 2011. "Social Networks, Legal Innovations and the "New" Music Industry." *Info : The Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media* 13 (6): 8-19. https://proxy.library.mcgill.ca/login?url=https://search.proquest.com/docview/893418954?accountid=12339.

[17] Quah, Danny (2003) *Digital goods and the new economy.* CEP discussion paper; CEPDP0563, 563. Centre for Economic Performance, London School of Economics and Political Science, London, UK. Retrieved from http://cep.lse.ac.uk/pubs/download/dp0563.pdf.

[18] "Revenue Market Share of the Largest Music Publishers Worldwide from 2007 to 2016." Statista. 2018. https://www.statista.com/statistics/272520/market-share-of-the-largest-music-publishers-worldwide/.

[19] Ripken, Johannes. "Music Industries History Part II: 1950 – 1990." Music Industry Blog. July 05, 2012. http://www.johannesripken.com/music-industries-history-part-ii-1950-1990/.

[20] Rogers, Jim. *The Death and Life of the Music Industry in the Digital Age*. New York, NY: Bloomsbury Publications, 2013.

[21] Théberge, P. (2012) The End of the World as We Know It: The Changing Role of the Studio in the Age of the Internet. In: Frith, S. and Zagorski-Thomas, S. (eds.) The Art of Record Production. 1st ed. Burlington, VT: Ashgate. pp. 77-90.

[22] Tschmuck, Peter. *Creativity and Innovation in the Music Industry*. Berlin: Springer-Verlag, 2012. Retrieved from https://books.google.ca/books?id=8e4-AAAAQBAJ&printsec=frontcover#v=onepage&q&f=false

[23] "Worldwide Independent Market Report." Worldwide Independent Network. June 2016. http://winformusic.org/files/WINTEL%202015.pdf.