

SAME SONG, NEW DANCE:
ANALYZING MARKET STRUCTURE AND COMPETITION
IN THE DIGITAL MUSIC AGGREGATION INDUSTRY

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Copyright

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Abstract

Technological revolutions of the past century have fueled dynamic paradigm shifts across a broad spectrum of mass media industries. This study examines an innovative new market segment in the music recording industry: digital music aggregation. Digital music aggregators are music distributors that directly connect artists, any creator of musical content, to digital music vendors, online music stores such as iTunes or digital music streaming services such as Spotify. Digital music aggregator companies offer services similar to major record labels, such as mass distribution, royalty collection, and intellectual property protection. Digital music aggregators provide services to artists at all levels of prestige and experience. Essentially any artist interested in publishing music can do so using digital music aggregators.

Despite their growing influence in the music recording industry, digital music aggregators have been afforded little scholarly attention. This study responds to Galuszka's (2015) call for further research on aggregator market structure and competition, proposing the following research questions: 1) how is the digital music aggregator market structured? 2) What competitive strategies do digital music aggregators employ? This study is framed by the industrial organizational model of market structure (Bain, 1968) and Porter's (1980) theories of competitive strategy. Six in-depth qualitative interviews were conducted for this study. Results illuminate market structure and competitive strategies in the digital music aggregation industry and lay foundation for future study and industrial application within this nascent branch of the music recording industry.

Keywords: *music industry, aggregation, market structure, competition*

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Dedication

For those who aren't afraid to get loud.

Chapter 1 - Introduction

There is nothing like the joyous feeling that comes from hearing the first five seconds of a great song on the radio, or an iTunes playlist, or a Spotify shuffle. For musicians and artists, that feeling is immensely magnified when the song that comes on is one they wrote. In the past, getting a song from recording to radio was an impressive feat on its own, but to do it without the help of a record label or producer was something else entirely. Today, however, digital technology available equally to young musicians who are just getting their start as well as seasoned artists at the height of career has eminently simplified the music production and distribution process. Artists can create professional quality recordings on a laptop computer in their bedroom, interact with fans using an array social media, and send their music across the world instantly with a few clicks of a mouse. Talented individuals who long ago relegated music to ‘just a hobby’ can now more easily compete for Grammy awards alongside superstars and celebrities.

Scholarly debates in the music industry frequently err toward recent economic turbulence, the demise of the established major labels, and, invariably, piracy (Rogers, 2013). Fewer studies focus on the rapidly advancing technology that is bridging historic divides in popular music culture and unprecedentedly democratizing the music business. Specifically, the access to distribution channels has been guarded by tastemakers in the music industry like label executives, radio managers, and talent managers. For decades, unknown artists relied on kind strangers, artists and repertoire scouts, and sympathetic DJs for a chance to have their music heard somewhere outside of their garage. The Internet and new music technology companies are allowing artists at all stages of development to electronically share their music with the world.

This study explores an emergent segment of the music recording industry; digital music aggregators. Digital music aggregators are online companies that facilitate distribution of music for artists and labels. According to Galuszka (2015), digital music aggregators, “bundle digital rights (copyright to sound recordings and performers’ rights) and deliver them to digital music stores, such as pay-per-download stores (e.g. iTunes) and subscription services (e.g. Spotify),” (p. 262). These rights bundles allow digital music providers to include an independent artist or label’s content in their online catalog and ensure the artist is paid royalties. Galuszka explains that digital music aggregators have significantly lowered entry barriers and bargaining asymmetry for independent artists. Using aggregators, artists at any stage of musical development, from superstar to street performer, can distribute their music online. As more aggregator companies with different service agreements populate the market, artists have the option to pick and choose the contracts they wish to accept, rather than being limited to whatever contract a major label would offer them. Moreover, strategic partnerships with other artist service companies, such as audio engineering or graphic design firms, give artists access to a variety of services to artists at each stage of the production and distribution chain.

This study bridges a gap in the literature by addressing two unexplored areas of research: aggregator market structure and the competitive strategies these companies employ. This study is framed by the industrial organizational model of market structure (Bain, 1968; Young, 2000), previous research on media market structure (Powers, 2001), and theories of competitive strategy (Porter, 1980). This study responds to a call for further research into the market structure and competitive strategies of digital music aggregators by Galuszka (2015), by providing a basis for future investigation of digital music aggregator companies from economic, legal, and managerial perspectives.

The remainder of this chapter introduces three scholarly interpretations of the music recording industry, provides background on the industry, and identifies the technological innovations that fostered the development of digital music aggregators. Chapter two reviews market structure and competitive strategy literature that serve as the theoretical framework for this study. Chapter three articulates the qualitative methodology employed for data collection. Chapter four presents result on market structure and competition in the digital music aggregation industry followed by a general discussion of findings in chapter five and finally concluding remarks in chapter six.

Defining the Music Industry

A common first step is tackling the problem of defining the music industry. From a distance, the music industry may appear to be comprised of pop stars, record labels, and a whole lotta money. Closer inspection reveals constellations of interconnected industries, markets, and market segments directly and indirectly related to business of music.

The ‘music industry’ is composed of the music recording industry, the music publishing industry, and the live music performance industry (Hesmondhalgh, 2013). The music recording industry is what most people refer to when talking about the music industry, which involves the actual recording, production, and distribution of music. The music publishing industry involves the companies that license, distribute, and pay artists for recorded music. The live music industry involves the booking and organizing of concerts and live music performances (Gordon, 2015).

The music industry has been studied from several different industrial perspectives. These various industrial interpretations offer unique insights into the mechanics of the music industry. Three popular industrial interpretations of the music industry are: 1) mass media industry; 2) cultural industry; and 3) copyright industry.

Music as Media

According to media management scholar Robert Picard (2005), managers in mass media industries must be aware of product and environment features that distinguish mass media markets from other industry markets. Mass media products typically are either singularly focused on a one-time release such as a book, movie, or album, or ongoing, such as that of a television series or newspaper. Picard explains that mass media products, “result from creative work that is based on information, and literary and artistic endeavor,” (2005, p. 65). Producers and distributors of media content are constantly subject to public scrutiny and regulation. Media environments often force managers to make decisions that are not based solely on economic information such as public taste, censorship laws, or completely arbitrary motives, like an executive ‘having a good feeling’ about taking a chance on a new media product. Additionally, media products are often intangible and thus “vulnerable to piracy or counterfeit,” (2005, p. 66). Media consumers have many products to select for consumption, which typically stems from a much smaller number of producers. Some content may be extensively produced and achieve little commercial success, while other cheap and independently sourced content may become breakout hits. Picard concludes that managers from non-media industries must be aware of the factors that separate media markets from others markets.

A mass media industrial interpretation is also relevant to this study because the relationships that develop between the major and minor players mirrors that of many mass media industries. Large, multi-national conglomerates dominate most mass media markets (Jung and Chan Olmsted, 2005). Mass media conglomerates are composed of vast networks of subsidiaries that encompass a broad spectrum of media. These highly diversified conglomerates compete in

several markets that typically include news, film, television, music, and more recently web-based media (Chan-Olmsted and Chang, 2003; Chan-Olmsted, 2004).

Music as Culture

Music is also interpreted as a cultural industry. David Hesmondhalgh (2013), seminal author on the cultures industries, explains that cultural industries produce goods whose commercial worth varies according to interpretation. Cultural goods “influence knowledge and understanding of the world,” and influence understanding of, “the relationships between culture, society, and economy (Hesmondhalgh, 2013, p. 6-7). Core cultural industries include many of the same core mass media industries such as broadcast, film, publishing, advertising, music, and Internet industries.

When first conceived, the term ‘cultural industry’ was adopted to indict the commodification and mass production of artistry. Theodore Adorno and Max Horkheimer (1944) saw capitalism as an insidious corruptor of culture and commodifying art would only lead to homogenization and the demise of creativity (as cited in Hesmondhalgh, 2013). Study of the cultural industries has since taken on more positive connotations. Hesmondhalgh cites French sociologist Bernard Miége, who repudiated Adorno and Horkheimer’s negative view of culture mixing with capital. Miége (1989) reasoned that commodifying culture would lead to competition, diversification, and innovation (as cited in Hersmondhalgh, 2013). Miége also pointed to ambivalence observed at junctions of culture and industry and the ongoing fight between artists and capitalists for freedom of creative expression (as cited in Hesmondhalgh, p. 25).

Contemporary studies of the cultural industries illustrate the role industrial mechanics play in the production and distribution of art. As noted by Garnham (1990), cultural industries

compete for a limited pool of overlapping resources such as disposable consumer income, advertising revenue, consumption time, and creative and technical labor (as cited in Hesmondhalgh, 2013). This competition, Hesmondhalgh argues, places greater importance on the symbolic meaning imbued in cultural products by producers. The products in cultural are largely rooted in intellectual property, whose governance is controlled by laws of copyright.

Music as Copyright

Finally, music is interpreted as a copyright industry. Drawing from the work of Patryk Wikström (2009b), copyright industries deal in intangible “information goods” and the legal rights required to legally consume those goods (Shapiro and Varian, 1999 as cited in Wikström, 2009b). Core copyright markets are mostly the same as those listed in mass media and cultural industries. However, Picard and Toivonen (2004) list other copyright dependent industries, such as those that manufacture goods that are needed to consume copyrighted goods (e.g. computer manufacturers, musical or photographic instruments), as well as others that distribute physical copyright-protected goods such as jewelry, furniture, and toys.

Wikström argues in favor of interpreting music as a copyright industry because of the unique characteristics of information goods. Information goods must be experienced by consumers to determine their worth, resulting in “high uncertainty and volatility” in copyright industries (Wikström, 2009a, p. 22). Information goods often require investment of significant time and resources to create but can be reproduced cheaply and exported with relative ease. This imbalanced cost structure motivates firms in copyright industries to aggressively protect the rights to their information goods. Endless lawsuits, mass removal of unlicensed content, and digital piracy illustrate the ongoing battle between rights owners and rights consumers.

As Wikström explains, the pressure to protection and profit from information goods is exacerbated in publically traded copyright companies. Many artists and fans would view reducing music to merely an information good as detestable, harkening back to Adorno and Horkheimer's acerbic commentary on the mixing culture and industry. Regardless, copyright industries must make ends meet, which is why firms frequently go to great lengths promoting the creativity and authenticity of their products. The disconnect between authenticity and profitability, Wikström notes, places large firms, particularly major labels, in the center of two competing interests. On the one hand, they must consistently produce content that is, or appears to be, authentic and creative to appease fans and mollify artists. On the other, they must meet profit margins to generate revenue and satisfy shareholders' expectations.

Clearly, the music industry is many things to many people. These three industrial interpretations of the music recording industry each contribute to this discussion. Mass media industrial interpretation takes into account product and environmental factors that can reduce uncertainty associated with media releases. In addition, mass media industries are composed of large conglomerates that must diversity their product offerings to compete with rivals. Cultural industries interpretation considers the complex relationships between capitalism and creativity produced culture. Finally, a copyright industry perspective emphasized the importance of securing and protecting rights to information goods as well as striking a balance between authentic and profitable products.

A better understanding of how the music recording industry is interpreted and studied aids in discussing how it has evolved and developed over more than a century. This historical perspective provides insight on the major and minor players interact and how the current dynamics in the industry came to be. The next section presents a brief overview of the history of

the music recording industry and the technological advances that paved the way to the birth of digital music aggregators.

Historical Background

The music recording industry, as it exists today, is a product of sequential waves of new technologies that have altered the way music is produced, distributed, and consumed. As noted above, music recording is distinct from the live music industry, which arguably predates recorded music by centuries, and the music publishing industry, though some crossover can be observed with the latter.

Before the invention of audio machines, the music industry entailed revenues from live performances and the reproduction and sale of written sheet music (Wall, 2013). The music recording industry was born near the turn of the twentieth century, when new phonograph and gramophone technology made *recorded* music reproducible and transmittable (Moreau, 2013). Long-playing records were the first example of recorded music being sold and consumed as a commodity.

In its early years, broadcast radio was prohibited from playing recorded music pursuant to regulations put in place by then Secretary of Commerce Herbert Hoover (Smethers and Jolliffe, 2000). Rather than burden the public airwaves with audio recordings that could be bought and listened to at home, burgeoning radio broadcasts mainly involved live studio performances. Later, in the 1950s, the 45 rpm vinyl record press catapulted the popularity and affordability of recorded back to center stage. Record companies began selling singles, including more international artists in their catalogs, and radio disc-jockeys became an important part of the music marketing process.

Technological innovations between the 1960s and 1990s made recorded music more portable and improved audio quality. Magnetic tape recording followed vinyl records, and later digital compact discs were introduced (Moreau, 2013). Portable cassette and disc players allowed consumers to take their music collections on the go and boom-box stereos became a staple among avid young music fans. During this technologically formative period, musical genres and tastes were also changing rapidly. Rock n' roll music created international superstar culture, as artists like Elvis Presley and the Beatles became global sensations (Wall, 2013). Major radio companies in the U.S. and abroad began broadcasting stations that played only the top 40 hits according to charts compiled by an Ohio based magazine, *Billboard* (Anand and Peterson, 2000). New genres like disco, heavy metal, and hip-hop created niche markets that were served by upstart independent labels (Wall, 2013). As a result of surges in fandom and new technology to cheaply distribute recorded music, the industry as a whole saw tremendous gains between the 1960s and 1990s (Lopes, 1992).

Majors and Indies

Majority market share in the music recording industry has been dominated by a small number of large companies since the early days of the phonograph and vinyl pressing machines (Wall, 2013). The original music recording companies formed in the early twentieth century, such as RCA, Victor, and Columbia, concentrated the music recording market, as they were the only firms capable of mass-producing records and record players. Over the next few decades, these companies evolved to incorporate new recording technology. They expanded to cater to their own production and distribution needs in-house. In the latter half of the twentieth century, technological innovations made it more affordable for independent artists and entrepreneurs to start their own small record labels. The major record labels, commonly referred to as “majors”,

responded by aggressively bidding against each other to acquire budding independent, or “indie” labels. Lopes (1992) discusses the systematic process of the majors buying out the indies as the ‘re-oligopolization’ of the music industry. Throughout this process, indie labels were more or less given freedom to continue operation as they were before the buyout, but the majors would have contractual priority to popular artists produced by indies.

After a series of mergers and acquisitions in the past ten years, the majors now consist of only three labels: Sony Music, Universal Music Group (UMG), and Warner Music. Alexander (1994) notes that cooperative behavior by the major labels is evidenced during periods of increases or decreases in new product offerings. While considerably smaller, many indie labels have built up considerable force and clout among artists and fans over the years. Indie labels have been formed by artists, former producers, or entrepreneurs who want more control of the music process or wish to serve niche genres of music like hip-hop in the late 1980s or grunge in the late 1990s. To match the power and presence of the majors, indies have banded together to form international independent music associations such as Beggars Group (E.U.), Secretly Group (U.S. and Canada), and the American Association of Independent Music (A2IM).

The major and indie labels provide artists with various services, which vary from accounting to booking tours to merchandising. These services will be explored in more depth later in this review. The bare minimum a label offers artists is to protect copyrights to music and license music to make artists money.

Market Structure in Music Recording Industry

The digital music aggregation industry is a market within the music recording industry. Therefore, it is pertinent to discuss characteristics of the music recording industry. A full

discussion of market structure research and variables used in this study is presented in a later section.

The music recording industry is an oligopoly, an industry in which few firms dominate the overall market (Stigler, 1964). Dominating firms in oligopolistic markets produce similar, but not identical, products. Stigler (1964) explains that oligopolistic firms are motivated to act collusively. Heavy market concentration means cost-cutting moves by one firm can drive down industry-wide prices. Stigler posits that collusion maximizes profits in oligopolistic industries. Collusion among oligopolistic firms can be facilitated by explicit communication or tacit cooperation (Fonseca and Normann, 2012). Cooperative behavior is especially important in industries with high barriers to entry and a tight market structure (Alexander, 1994). By compiling *Billboard* popular music data from 1890 to 1988, Alexander (2002) conducted a market share analysis of the music recording industry to determine which markets saw greater diversity of music products. Alexander determined that moderately concentrated, oligopolistic markets led to greater product differentiation than monopolistic markets in the music recording industry.

Oligopolistic market structure is operationalized for this study as a small number of firms, less than five, emerging as leaders in the industry. As noted earlier, market share data was unavailable at the time of writing this study. Therefore, oligopolistic structure will be determined by evidence resembling the pattern of re-oligopolization described by Lopes, 1992. During a time when the oligopolistic hold of the majors was challenged by a wave of new indie labels, Lopes observed a systematic pattern of major labels buying out indies to increase their chances of commercial success.

To compete with major competitors, firms in oligopolistic markets must diversify their portfolios and create innovative products for consumers (Li and Chiang, 2009). Diversified firms offer a wide variety of products in several geographic areas. In a study of diversification strategies in major media corporations, Chan Olmsted and Chang (2003) found the two most diversified firms overall were Vivendi and Bertelsmann, parent companies to two of the largest major record labels in the world, Universal Music Group (UMG) and Bertelsmann Music Group (BMG now wholly owned by Sony).

Vertical integration refers to a single firm's capacity to perform multiple functions in a chain of production, such as manufacturing, distribution, and advertising (Porter, 1980). Large firms are motivated to vertically integrate their production lines as it can maximize production efficiency and help firms avoid extraneous competition in other markets. According to Afuah (2001), vertically integrated firms perform better if they continue to integrate innovative technologies. Firms that are highly vertically integrated with existing technologies can still be outperformed by firms with less overall vertical integration that include competence destroying technologies, a term borrowed from disruptive innovation literature. According to the theory of disruptive innovation (Tushman and Anderson, 1986) innovative new technologies can add on to existing technology or render existing technology wholly obsolete. While the former, termed competence-enhancing innovations, move industries forward, the latter, competence-destroying innovations, push industries in entirely new strategic directions. As mentioned above, the majors missed out on the opportunity to vertically integrate digital music stores into their supply chains (Moreau, 2013).

Music Licensing and Copyright

A second area of the music industry relevant to this discussion is the music publishing industry that licenses music for public use. Licensing music refers to the process by which a copyrighted piece of music is legally reproduced (Gordon, 2015). In the United States, the major piece of legislation governing the protection and usage of copyrighted material is the Copyright Act of 1976. Entertainment lawyer Steve Gordon explains the Copyright Act gives copyright owners the rights to reproduce music, authorize others to distribute music, authorize others to perform music publically, and transmit audio recording. The Copyright Act protected the rights of music produced after its adoption as well as included special provisions to extend copyright restrictions to music recordings made in the century following the invention of the phonograph and the mass production of recorded music. Though the Copyright Act does not require registering copyright, it does serve as a basis for claims of infringement.

Subsequent pieces of legislation in the U.S. updated the Copyright Act to apply to new technology used to record and reproduce music. The first pertained to copying music without permission. Around the 1990s, new digital audio recording technologies such as digital recorders and CD burners made it easier for lay-consumers to record commercialized audio on their own. This led to the adoption of the Audio Home Recording Act of 1992, which aimed to “compensate copyright owners for sales lost due to copying,” (Gordon, 2015, p. 91). The AHRA did not apply to digital technologies that become more widely used in the late 1990s. As a result, a new law was passed in 1995 called the Digital Performance Right in Sound Recordings Act (DPRA). According the DPRA, digital audio transmissions were included in the public performances provision of the Copyright Act, meaning online music providers needed to secure certain mechanical licenses before playing music. Mechanical licenses are those licenses

registered with publishers and performing rights organizations that ensure artists are properly compensated for performances of their music. The DPRA primarily applied to satellite and online radio, the burgeoning digital music services at the time (Gordon, 2015).

The third major piece of legislation, the Digital Millennium Copyright Act (DMCA) of 1998, further narrowed licensing requirements for non-interactive streaming audio providers. Gordon (2015) explains non-interactive streaming content providers are one of three main types of online music providers, which also includes digital music stores and interactive digital streaming services. Digital music stores, like the iTunes Store, Amazon Music, or Google Play, allow consumers to purchase and download albums or individual songs, an important distinction to be discussed later. Non-interactive streaming sites, such as XM Satellite Radio or Pandora Internet Radio, allow users to stream music to their operating device (e.g. smartphone, computer, etc.) without the ability to choose specific songs or create playlists. Interactive streaming sites, such as Spotify or YouTube, allow users to stream specifically selected songs to their operating devices, create playlists, and in some instances (e.g. Spotify Premium, YouTube RED) download songs temporarily for offline listening (Gordon, 2015).

Under the DMCA, non-interactive streaming services could use music without the express permission of copyright owners, namely record labels, “provided they comply with certain eligibility requirements and pay fees mandated by the [DMCA],” (Gordon, 2015, pg. 92). Though sometimes misinterpreted or misapplied, these laws culminating in the DMCA were put in place to ensure music was properly licensed so that artists could get paid from any number of the many new forms of music services.

Regardless of the source, licensed music generates revenue in the form of royalties. Royalties are generated through performances royalties, such as when a song is played on the

radio or at a concert, synchronization royalties, such as when a song is used in a movie or television show, and mechanical royalties, money generated when music is actually sold such as an album on iTunes or a book of sheet music (Wikström, 2009b). Whereas the music recording industry relies on record labels to record music, the music publishing industry relies on music publishers to publish music and special societies dedicated to making sure artists and publishers are both receiving their fair cut. According to Gordon (2015) the typical split between a publisher and a copyright owner is 50-50.

Societies known as performing rights organizations (PROs) administrate the collection and distribution of revenue accrued through royalties. Labels register their works with PROs like the American Society of Composers, Artists, and Publishers (ASCAP), Broadcast Music Incorporated (BMI), Society of European Stage Authors and Composers (SESAC), or Performing Rights Society (PRS) and the PROs divide the money between songwriters and publishers. Another organization known as SoundExchange helps calculate and distribute royalties owed to songwriters. SoundExchange helps track royalty accumulation across the millions of ‘micro-transactions’ that take place when a song is streamed, downloaded, or otherwise accessed digitally.

In addition to helping money flow back to deserving artists, the DMCA, the music publishing industry, and PROs collectively help to fight digital copyright infringement of music, better known as piracy. A recent area of study has attempted to explain why piracy is so rampant and makes suggestions to curb music piracy (e.g. Borja et al., 2013; Weijters et al., 2013; Cesareo & Pastore, 2011). The literature is divided between those who believe piracy is killing the music industry and those who believe the effects of piracy have been exaggerated. Reports by the Recording Industry Association of America (RIAA) and industry experts, for example,

bemoan the billions in lost revenues piracy has cost artists, producers, labels and publishers (e.g. RIAAa, 2015; Zenter, 2006). Other research indicates that piracy may not have caused as much irreparable damage as the industry reports. Studies have provided evidence to suggest piracy does not reduce album sales and actually increases auxiliary revenues to popular artists (Andersen & Frenz, 2010; Piolatto & Schuett, 2012; Waldfogel, 2010). Irrespective the debate, infringement of copyright does not always lead to economic losses (Picard, 2004). Creative commons licenses, for example, present an alternative to rigid copyright protection where content creators may share their work freely and openly among various online communities. Copyright law plays an important role in understanding the services provided by aggregators, which largely hinge on protecting and licensing music.

Disruptive Digital Distribution

In the early 1990s, some non-music industry firms began experimenting with music distribution and promotion using digital information and communication technologies (ICT), which had already existed for some years. Francois Moreau (2013) presents an argument for the disruptive innovation of ICT in the music industry and how the music recording industry missed a major opportunity, and in some regard committed a fatal error, by not shifting to ICT sooner. Amalgamating three decades of disruptive innovation scholarship, Moreau defines a disruptive innovation as technology that does not out-perform existing technology immediately, includes features that are not understood or appreciated at the time of its introduction, usually are introduced into niche markets, and as such are rarely incorporated by major players in an industry. However, “over time, the performance of the product of disruptive innovation improves significantly... for [mainstream] consumers to begin taking it up,” (Moreau, 2013, p. 22).

Following the CD, the next major development in music recording technology was the MP3 and digital music downloading. As Moreau explains (2013), the digitization of music in the late 1990s was a robust example of a significant disruptive innovation. First, at the time of their inception, MP3 files did not give consumers higher fidelity audio quality than CDs and instead robbed consumers of album artwork and liner notes they received with a physical CD. The second sign of a disruptive innovation was the time, space, and knowledge required to download MP3s. Early internet bandwidths made downloading MP3s a time consuming endeavor, fifteen minutes per song according to Moreau, and early MP3 players had very limited storage capacity, around 60 minutes of music. In addition, online networks that allowed access to MP3 files, peer-to-peer (P2P) file sharing networks, could only be accessed by knowledge Internet users, which at the time was almost exclusively college students. Moreau points out that the music recording industry saw increases in consumption among the over 40 age demographic and CD consumption overall at the time when the first P2P networks emerged.

The third characteristic of a disruptive innovation, targeting niche markets, was resoundingly embraced by those artists who began moving toward digital distribution (Moreau, 2013). Artists who could not find a home in the mainstream industry took refuge on the Internet, sharing their music through P2P sites and other digital tools like MySpace, an early social media network. Online music distribution also benefitted artists who did not have enough music to produce an entire CD or preferred to distribute their music bit by bit. Even so, to the major labels shifting to digital formats did not make rational or economic sense. Though online retailing mitigated production and physical shelf costs, the net profits would still not beat out CD sales according to the business models in place at the dawn of the new millennium.

The final sign of a disruptive technology is highly evident in the music industry. The Internet and digital technology was not a passing fad, but perhaps the most striking proof is who emerged to provide the supreme digital music megastore. Instead of a major label taking their massive catalogs and opening a digital music store, it was a personal computer manufacturer from California that became synonymous with digital music. Apple's iTunes Store, paired with the product Apple actually trying to sell, the iPod, was a huge success in 2003. The sales of digital music on the iTunes Store began to grow steadily at the same time as physical sales began to drop. After realizing the commercial power of the iTunes store, many major tech companies were quick to follow suit.

Digital Music Service Providers

Digital distribution of music presented a promising opportunity for established online vendors to bring 'long-tail' economics to the music recording industry. In his text codifying the long-tail, Chris Anderson (2006) explains, digital distribution models in retail industries afforded sellers virtually unlimited inventories allowing for an unprecedented surge in product availability. Digital music vendors, unburdened by limited physical shelf space, can buy and sell as much recorded music as they could access. Digital music retailers, or e-tailers, must overcome three obstacles to setting up shop (Galuszka, 2015). They must first set up an interface, such as a website, like Amazon Music, or a piece of software, such as the iTunes music store. Next, they must pen deals with credit card companies to accept electronic transactions. The third barrier to set up, according to Galuszka is by far the most difficult, is accumulating a catalog of music to sell. To accomplish this, music e-tailers must obtain the licensing rights to digital music.

According to Galuszka (2015), opening a digital music store requires three conditions be met. First, a prospective music vendor must design a website or interface to serve as the

storefront. Next, they must negotiate a payment system with credit card companies or online transaction companies such as PayPal to accept payments. Finally, and most vexingly, they must accrue the rights to music to offer in the store. As mentioned earlier, three major labels control over 75% of the global music recording market. Licensing with the majors is top priority for any would-be music vendor. Majors, in turn, have tremendous bargaining power to negotiate favorable terms for themselves. In addition, certain indie labels, with popular or attractive niche artists, command enough respect in the music industry to work out better contracts for their artists. Smaller indie labels and unrepresented artists, however, have few options in terms of forging contracts with vendors that work to their advantage.

The Future of Music

Bockstedt, Kauffman, and Riggins (2006) made several predictions about the impact of digital technology on the future of the music recording industry. They predicted a seismic shift in music consumption patterns, with a majority of consumers moving to digital formats. They also predicted the majors would need to consolidate to combat the growing threat of digital music distribution. Along with consolidation, they predicted that legal monitoring groups would guard copyrights and intellectual property rights held by the majors more proactively. They predicted online music stores would need to differentiate the way they captured value in recorded music to address growing consumer needs. Finally, they predicted digital modes of distribution would help artists publish music to fans and consumers directly, effectively bypassing the major labels.

A decade later, arguably all of Bockstedt, Kauffman, and Riggins' (2006) predictions have come to pass. In 2014, the RIAA reported that revenue from digital sales of music surpassed physical sales for the first time in history (RIAA, 2015b). In the past decade, two high-

profile mergers concentrated the music recording market from five majors in 2006 to three majors in 2015. Legal rights groups are indeed much more vigilant to remove unlicensed content from all annals of the Web. Innovative digital music providers, such as Spotify and Pandora, have introduced a new mode of listening to music online, through digital streaming. Finally, digital music aggregators have created a new method of distributing music digitally, giving independent artists and labels a direct line into the music industry.

While the music recording industry has seen dramatic change recently, the demand for independent distribution is nothing new. In his study of new technology and the market structure of the music recording industry, Alexander (1994) concluded that, “A competitive digital delivery system would reduce substantially the minimum efficient scale of distribution, and likely stimulate a highly competitive producer market,” (pg. 10). In the twenty years since, many new technologies have been introduced to facilitate digital distribution for existing major players. During same time, the demand for digital music distribution technology grew as technology to produce music also became more accessible. The result was the creation of a new niche market segment of digital music distributors. As the latter portion of this study will explain, digital music aggregation companies have steadily filled that niche.

Digital Music Aggregators

The Age of Aggregation

Digital aggregation refers to the process of collecting digital content from multiple sources and organizing it in some central location on the Web. Digital aggregation is found in numerous online contexts. For example, social media sites, like Facebook or Twitter, aggregate content posted by friends and celebrities. Recipe sites, such as All Recipes or Food.com, collect

recipes and videos posted by casual users and professional chefs and academic databases, like ProQuest and JSTOR, are also considered content aggregation systems (Bakker, 2012).

Digital aggregation is a familiar concept in news media industries. News aggregation websites such as the Huffington Post or Reddit have given rise to an armada of bloggers turned citizen journalists. Bakker (2012) describes the technology involved in aggregation. News aggregation and citizen journalism has become so prolific, scholars and professionals have launched a campaign to articulate and define what separates journalism from aggregation. Legal attempts to keep original content have been thwarted by the Fair Use Doctrine in U.S. copyright law (Weaver, 2012). Opponents of aggregators claim aggregating copyrighted content, such as news or video, constitutes copyright infringement. However, U.S. courts have maintained that, with proper attribution to the original source, content aggregation does not impinge on protections afforded to rights holders. Of note in review of aggregation copyright law is the observation that the U.S. courts “afford the law flexibility when dealing with emerging technology, such as news aggregators,” (Weaver, 2012, p. 1200). Digital music aggregators, which should also fall under the interpretation of “emerging technology” may too benefit from the same leniency.

In a similar vein, Drew (2005) reviewed the process of commercial mixing and *music aggregation* that more closely resembles news aggregation. According to Drew, music aggregation, not to be confused with music aggregators, involves the collaborative creation of remixes and online playlists that facilitate the discovery of new music. In 2005, the iTunes store was essentially the only successful digital music retailer, and would not accept music to be sold without a distributor or an invitation. Though remixing music, taking an existing song and adding on to it or changing parts of the recording, had been a common practice since the 1980s,

without proper licensing, remixes could not be sold commercially. Therefore, music aggregation sites became central hubs for individuals who created remixes or other music that could not be sold on iTunes for lack of a professional distributor. In the decade since, and in fact at the time Drew's article was published, barriers to getting music onto iTunes and a litany of other digital music providers have dropped significantly.

This literature on aggregation is included to distinguish digital music aggregators, for-profit businesses, from the process of digital content aggregation, which can generally be done for free. That the vast majority of articles retrieved on aggregation refer to traditional content aggregation drives further the point that digital music aggregators receive have received little to no attention in press and academic scholarship.

Digital Music Aggregators

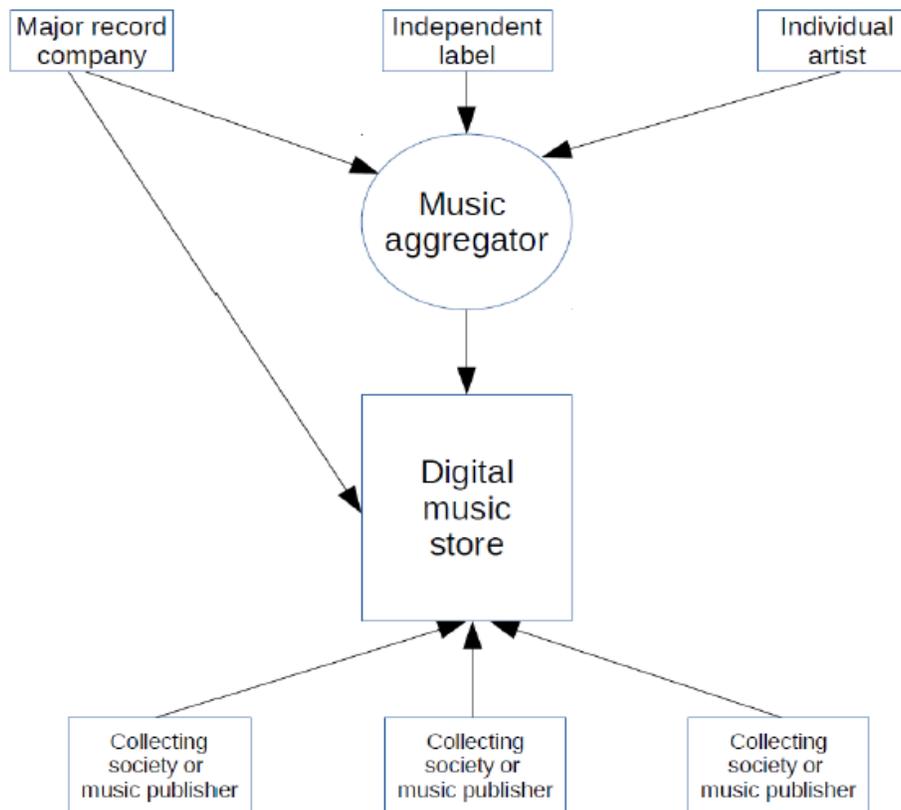
Digital music aggregators use content aggregation technology with slightly different mechanics. Digital music aggregators are web-based companies that provide the technical services needed by artists and labels to distribute music online. Patryk Galuszka (2015) defined digital music aggregators as intermediaries in the music recording industry that “bundle digital rights... and deliver them to digital music stores... and subscription services,” (p. 262). As figure 1 illustrates, aggregators give independent label managers and individual artists access to distribution networks that previously were exclusive to the majors. In this model of the aggregation process, Galuszka notes that aggregators only deliver content to digital music stores. Royalty collection and payment would still need to be handled by a collection society such as ASCAP or BMI. Findings reported later in this study, however, point to notable exceptions in

which royalty collection and distribution *does* go through the digital music aggregator. This will be discussed in more detail in chapter five.

Evidence of growth in the digital music aggregation industry can be observed by the list of approved aggregators who partner with iTunes. Whereas before there were only around five to ten approved aggregators listed by the iTunes store, at the time of writing, twenty-five aggregators that collectively provide services in the U.S., Europe, Australia, and Asia are featured on iTunes' 'approved partner list' (iTunes, 2016). Aggregators are consistently featured at major music industry conferences such as SXWX (South by Southwest) and the ASCAP Expo. In recent years, a select few artists distributing music only through aggregators have been nominated for and chosen to win Grammy awards. The development and maturation of the aggregation industry illustrates the fruition of an idea decades in the making.

Figure 1 Digital Music Aggregation Process (Galuszka, 2015)

Copyright in sound recordings



Songwriters' rights

While market structure and competition in the music recording industry has received scholarly attention in recent decades (e.g. Alexander, 2002; Leyshon et al., 2005; Lopes, 1994; Power and Hallencruetz, 2007), new market segments have not (Galuszka, 2015). Advances in digital distribution technology have changed the rules in the music recording industry. In his study of new technology and the market structure of the music recording industry, Peter Alexander (1994) concluded that, “A competitive digital delivery system would reduce substantially the minimum efficient scale of distribution, and likely stimulate a highly competitive producer market,” (pg. 10). As mentioned earlier, in the same report Alexander

concluded that a competitive market would boost product diversity, meaning more artists could distribute more music. Those digital delivery systems are now a reality and must be addressed in the corpus of music industry research.

Chapter 2 - Literature Review

The purpose of this thesis is to bridge a gap in the literature by addressing the following broad research questions: 1) How is the digital music aggregation industry structured? 2) What competitive strategies do digital music aggregators employ? In the following section, parameters of market structure and competition are set by variables derived from previous studies. In addition to operationalizing variables, the next section presents a series of narrowly specified research questions.

Market Structure

Markets are collections of buyers and sellers who set terms for how consumers access products and services (Caves, 1987). Analyses of markets include geographic markets, such as those markets housed within one country or region, specific segments of larger markets, such as the software industry housed within the larger personal computer industry, or specific brands, such as the well-recognized brand of the Disney Corporation (Chen, 1996). The music recording industry market is comprised of buyers, music retailers who pay for the rights to use music, and suppliers, record labels and distributors who own the rights to music. Determinants of market structure used in this study include number of competitors and product differentiation.

This study examines market structure according to the industrial organization (I/O) body of work. I/O literature places market structure as a central determinant of competitive strategy (e.g. Bain, 1968; Porter 1980, 1981; Park and Mason 1990). The traditional model of industrial organization indicates that structure influences conduct which influences performance (S-C-P) (Porter, 1981). The S-C-P paradigm of the I/O model has been criticized for failing to consider feedback loops between structure, conduct, and performance, nuances associated with certain market structures, as well as the implied causal relationship between structure and performance

(e.g. Wirth and Bloch, 1995). According to the S-C-P paradigm, analysis of strategy should proceed in uniform order from structure, to conduct, then to performance. No consideration was given to, for example, strategic decisions made in the conduct phase that could influence industry structure. Moreover, the S-C-P paradigm overemphasized the impact market structure had on performance. In response, recent scholarship has updated the I/O model by infusing additional economic and interdisciplinary theory.

As Young (2000) notes, oligopoly theory and game theory as well as competitive strategy literature developed through the 1980s and 1990s, have produced a ‘new’ paradigm of industrial organization. To begin, the “new” I/O model considers how the conduct of individual firms can influence variables, such as pricing and output, which in turn can influence performance. Inter-firm conduct is explained through oligopoly theory, which contributes models of firm behavior in oligopolistic markets. Oligopoly is useful in I/O literature because firms in oligopolistic markets demonstrate collusive behavior so as not to drive industry-wide prices down or up (Stigler, 1964). In addition, contributions from game theory have helped I/O researchers create models to predict how firms might perform in certain market structures, such as perfect monopoly or oligopoly. Game theory constructs analytical ‘games’ that helps determine how behavior or rival firms may impact the conduct of a focal firm or an entire industry (Kreps, 1990, as cited in Young, 2000). While the practical application of game theory models is limited by the use of theoretic ideals, firm performance can be estimated using a variety of real-world competitive strategies before implementation (Sutton, 1991, as cited in Young, 2000).

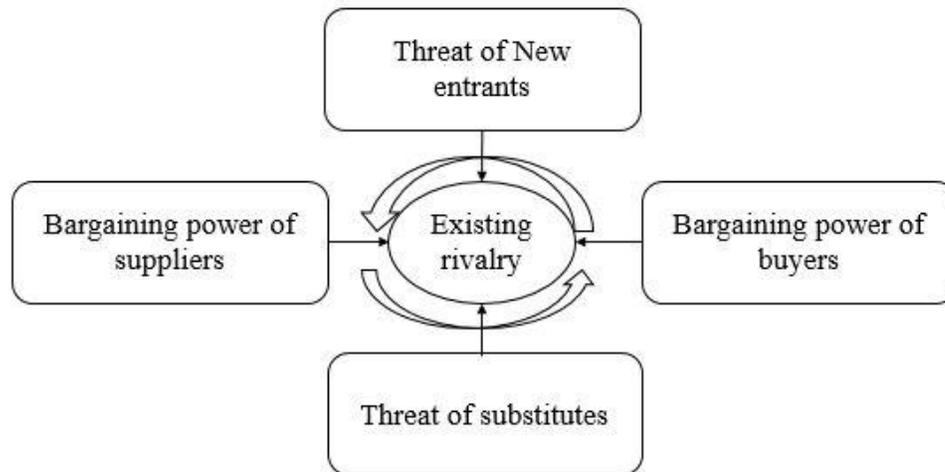
Competitive strategy patriarch, Michael Porter, upon whose work much of the competitive section below is based, discussed the analytical strengths of the new I/O model in determining market structure and completion. Porter (1981) lists eight areas in which the new

I/O model contributes to competitive strategy research. Porter explains that the new I/O model better translates to competitive strategy research. The reason for improved translation is the new I/O model considers firms as free-standing entities, breaks the static tradition of the traditional I/O model, in addition to the incorporation of oligopoly theory and determinism advanced by game theory discussed above. Free standing entities refers to examining the conduct and performance of individual firms and individual rivals. The new I/O model also considers industries as being in constant motion, departing from the traditional interpretation of industries as static entities. Industrial environments are shaped and shifted by what Porter (1980) termed the five forces of industry.

The Five Forces of Industry

Analyzing industry structure is a critical first step toward understanding how firms in an industry compete for profit. Porter (1980) identified five forces that collectively determine how firms operate and interact in any given industry (see figure 1). As a tool of structural analysis, the five forces model helps separate exogenous factors, those that affect all firms in an industry, from endogenous factors, which affect individual firms. By assessing the intensity of industry forces, firms can determine their strengths, weaknesses, opportunities, and threats in relation to each force.

Figure 2 The Five Forces of Industry (Porter, 1980)



Threat of New Entrants

Potential entrants are any new firms that intend to compete in an industry. Potential entrants pose a competitive threat to established firms in an industry. The threat of new entry as a force of industry is determined by factors that create barriers to entry. Barriers to entry include economies of scale, product differentiation, the cost of switching into a new industry, access to distribution channels, and cost disadvantages (Porter, 1980, p.7-11). Industries with high barriers to entry are less threatened by potential entrants.

Some barriers to entry in the music recording industry have been significantly reduced by technological innovations, such as the ability to produce high quality recorded music without expensive equipment (Lopes, 1992), and the internet granting access to distribution global distribution networks (Moreau, 2013). Other barriers, such as the massive economies of scale controlled by the majors, remain unchanged. Product differentiation

Threat of Substitution

If consumers can find reasonable alternatives to products offered by a firm, that firm must develop retention strategies to prevent substitution. In addition to offering objectively better products, firms can reduce threat of substitution with name recognition, brand loyalty, or by promising consumers superior customer service.

Rivalry Among Existing Firms

Threat of existing competitors, or interfirm rivalry, is another industry force that strategists must consider. In industries with intense rivalry among existing firms, new firms must consider how to respond to aggressive competitive action. New players must decide whether they want to attempt to compete directly with existing firms, or attempt to avoid direct competition by carving out a new area of industry.

Bargaining Power of Buyers and Suppliers

This study mainly focuses the threat of new entrants, substitutes, and existing rivals. However, in addition to the three forces described, the bargaining power of buyers and suppliers are also industry forces that affect competitive strategy. Buyers gain bargaining power by controlling strategic assets in an industry such as distribution channels or valuable resources. Similarly, suppliers with higher bargaining power can drive up industry prices. In the music recording industry, major labels command a great deal of supply-end bargaining power by collectively controlling the rights to an immense catalog of recorded music. Indie labels with large rights collection are in a more favorable position to bargain with distributors than smaller labels or unknown artists.

Media Studies Market Structure Variables

Mass media market structures have been determined by the following variables: 1) product differentiation, 2) market share, and 3) number of competitors (e.g. Lacy and Davenport, 1994; Powers, 2001; Gibbons, 2014). Due to the emergent nature of the digital music aggregation industry, the variable ‘market share’ is omitted in this study. Market share examines market concentration by comparing firms that control the most ‘shares’ with those who control the least. Shares are determined by some reliable metric such as literal shares owned by shareholders in a publically traded company, number of clients, or empirical ratings of a company by a third party. At the time of writing, none of the firms analyzed by this study are traded publically and the author found no empirically reliable measure of clients or rating aside from the unverifiable word of interviewees. As such, market structure variables derived from prior analysis of mass media markets are limited to number of competitors and product similarity.

Number of Competitors

Competitors are defined as “firms operating in the same industry, offering similar products, and targeting similar customers,” (Chen, 1996, p. 104). Importantly, this definition specifies that competitors are not simply two firms who operate in the same industry. Two firms who operate in the same industry may not compete if they produce two different products or target similar customers. Powers (2001) examined number of competitors in one industry, broadcast news broadcast, who operated in different sized markets. Likewise, firms in the music recording industry who offer the same product may not compete with other firms who target different customers. For example, an indie label targeting a niche audience may not consider a major label or even other indie labels producing different genres of music competitors.

For this study, competitors are operationalized according to Galuszka's (2015) definition of a digital music aggregator; companies that "bundle digital rights... and deliver them to digital music stores... and subscription services," (p. 262). The first research question is thus:

RQ₁: How many competitors compete in the digital music aggregation industry?

Product Differentiation

In addition to strategic groups targeting similar audiences using similar price policies, products and services are an important variable of study. Music firms, like other mass media firms, produce a diverse array of content and offer a wide variety of services (Picard, 2005). Major conglomerates in the music recording industry, such as Warner or Universal, are prime examples of the strong diversification of media firms. Similar products offered by competitors in a given market indicates market stability, but too much similarity leads to homogenized markets. To maintain competitive advantages, firms in homogenous markets increasingly diversified products (Powers, 2001). Galuszka (2015) alluded to the fact that digital music aggregators, in particular aggregators that work with independent artists, offer additional products and services to consumers on top of music distribution. Therefore, the second research questions ask:

RQ_{2a}: What products are produced by digital music aggregators?

RQ_{2b}: What services are offered by digital music aggregators?

Competitive Strategy

Michael Porter's (1980) seminal text on competitive strategy is a powerful explanatory tool for analyzing industries. Firms must develop business strategies to mature, prosper, and competitively viable in their unique markets. While market structures do change over time, many

firms in established industries have a fundamental understanding of how to create and implement strategies that best fits their market structure. As Porter explains, competitive strategy research takes into account the industry forces described above as well as individual firm conduct and rivalry that ultimately impacts performance.

Firms often conduct competitor analyses, a technique articulated by Porter (1980), to gather information about rival firms in an industry. Full competitor analyses require the gathering of an immense amount of competitive intelligence data relating to numerous aspects of a rival firm's business (Prescott, 2000). This study does not conduct a full competitor analysis on specific focal firms in the digital music aggregation industry. However, qualitative data were gathered from two sets of competition firms in the industry. Accordingly, elements of competitor analysis are presented to define three competitive strategy variables studied.

Competitor Analysis Variables

Competitor analysis seeks to explain inter-firm behavior and rivalry among competitors in a given industry by examining variables related to competitive strategies (Chen, 1996; Porter, 1980). The framework of competitor analysis selected for this study considers two independent variables, market commonality and resource similar, that influence a third dependent variable, inter-firm rivalry (Chen, 1996). Figure three illustrates this framework.

Figure 3 Framework of Competitor Analysis (Chen, 1996)

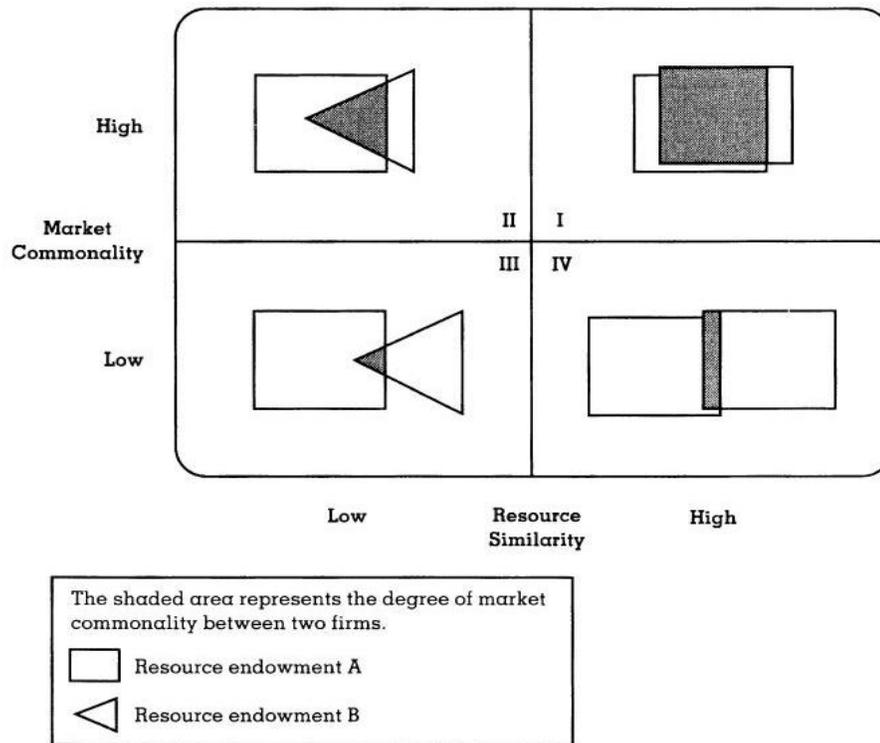


Figure three depicts four scenarios of competition. The first quadrant shows the substantial overlap between two firms with similar resources and a high degree of market commonality. Firms in the first quadrant are “direct and mutually acknowledged competitors,” (Chen, 1996, p. 106).

Market Commonality

Market commonality is “the degree of presence that a competitor manifests in the markets it overlaps with a given firm, (Chen, 1996, p.106). Firms with high “multimarket contact” are more likely to be direct competitors. Multimarket contact is observed in firms that produce similar products, offer similar services, or otherwise interact in multiple markets where other competitors exist. The majors in the music recording industry are a prime example of firms with a high degree of multimarket contact. The majors compete in music production, publishing, and distribution markets, where additional competitors are present.

Markets overlapping in multiple geographic areas also constitute a high degree of market commonality (Chen, 1996). Geographic overlap is relevant in the music recording industry as many firms compete in the same geographic areas. Power and Hallencruetz (2007) found that channels of distribution in the international music recording industry are “highly fractured and localized,” (p. 377). Cultural music centers in the U.S., such as Nashville or Los Angeles, create densely saturated, yet highly diversified music markets. Producers in smaller or foreign markets, such as the Nordic music market, experienced great difficulty breaking into major U.S. markets.

For this study, firms with high market commonality produce very similar product lines and compete most of the same geographic areas. third research question asks:

RQ3: How much market commonality exists among firms in the digital music aggregation industry?

Resource similarity

According to the resourced-based view of competitive strategy, firms in a scenario of perfect competition have access to the same resource endowments, “bundle[s] of tangible and entangle resources and capabilities,” (Chen, 1996, p. 107). In reality, resource endowments may not be perfectly identical, but firms with similar endowments must develop unique strategies to maintain competitive. An example of a resource endowment in the music recording industry is catalog of music to which a label has access. The majors possess significantly greater resource endowments than indie labels, yet fairly similar endowments in comparison to one another.

Chen (1996) defines resource similarity as, “the extent to which a given competitor possesses strategic endowments comparable, in terms of both type and amount, to those of a focal firm,” (p. 107). Resources for technological companies, like aggregators, mainly consist of intangible digital assets. Galuszka (2015) identified distribution outlets, namely digital music

store partnerships, as an important asset for digital music aggregators. Resource similarity for this study is therefore operationalized as the degree of similar distribution networks with which an aggregator partners. The fourth research question asks:

RQ4: To what similar resources do firms in the digital music aggregation industry have access?

Inter-firm Rivalry

High market commonality and resource similarity places firms in direct competitive contact. Chen (1996) proposed that firms in direct competition are more likely to launch and respond to direct competitive attacks. Competitive attacks can take the form of any deliberate action made with the intention of subverting or acquiring a rival's market share. Competitive attacks and retaliatory actions may be blatantly obvious or indiscernibly subtle. In the latter cases, additional methods of inquiry help determine inter-firm rivalry.

Another method of assessing rivalry involves asking manager or executives of firms who they believe to be their competitors (Bloodgood and Bauerschmidt, 2002). For the purposes of this study, rivalry in the digital music aggregation industry are those firms identified representatives of focal firms interviewed for this study. The fifth research question asks:

RQ5: Which firms are competitive rivals in the digital music aggregation industry?

Strategic Groups

In many industries, firms offering similar products or targeting similar consumers coalesce into smaller 'strategic groups' (Porter, 1980). Porter defines strategic groups are collection of firms in an industry that use similar strategies or approaches to profitability. Though the strategic group approach is vulnerable to criticism of empirical verifiability (Barney

and Hoskinsson, 1990), organizing firms into strategic groups remains a useful organizational tool to identify firms who are more likely direct competitors.

Table 1 Dimensions of Competitive Strategy (Porter, 1980)

Specialization	Cost position
Brand identification	Service
Push versus pull	Price Policy
Channel selection	Leverage
Product quality	Relationship with parent company
Technological leadership	Relationship to host government
Vertical integration	

Porter (1980) illustrates strategic groups by graphically mapping them out. The axes of a strategic group map are set according to two dyadic dimensions of competitive strategy. Table one lists dimensions of competitive strategy. The two dimensions of competitive strategy that this study addressed are specialization and price policy. Specialization refers to, “the degree to which [a firm] focuses its efforts in terms of the width of its line, the target customer segments, and the geographic markets served,” (Porter, 1980, p. 127). Specialization is selected specifically for distinguishing groups based on customer segments targeted. Price policy, the pricing model or actual cost of products and services, was identified throughout the course of this study as a factor that separated competition among digital music aggregators. The final research questions ask:

RQ6_a: What strategic groups based on specialization have formed in the digital music aggregation industry?

RQ6_b: What strategic groups based on price policy have formed in the digital music aggregation industry?

Summary

Analyzing the market structure and competitive strategies of digital music aggregators draws on literature from the music recording industry, the industrial organizational model and theories of competitive strategy. The digital music aggregation industry exists as a subset of the music recording industry, which is interpreted simultaneously as a mass media industry, cultural industry, and copyright industry. The music recording industry exhibits a long history of pervasive oligopolistic market structure and propensity to be disrupted by new digital technology. This research seeks to determine how the digital music aggregators are developing in relation to the music recording industry.

This review outlines the theoretic constructs that will determine market structure and competition in the digital music aggregation industry. Previous media market studies have examined number of competitors and product differentiation to understand market structure in mass media industries. Competitive strategy research has used market commonality, resource similarity, and inter-firm rivalry to explore competition in various industries. The next chapter presents the qualitative methodology employed to answer the research questions proposed by this study:

RQ1: How many competitors compete in the digital music aggregation industry?

RQ2a: What products are produced by digital music aggregators?

RQ2b: What services are offered by digital music aggregators?

RQ3: How much market commonality exists among firms in the digital music aggregation industry?

RQ4: To what similar resources do firms in the digital music aggregation industry have access?

RQ5: Which firms are competitive rivals in the digital music aggregation industry?

RQ6a: What strategic groups based on specialization have formed in the digital music aggregation industry?

RQ6b: What strategic groups based on price policy have formed in the digital music aggregation industry?

Chapter 3 - Methodology

In-depth qualitative interviews were conducted for this study. Qualitative interviews are a powerful method of study to investigate complicated industrial topics (Yeung, 1995). Industrial research asks participants to divulge potentially sensitive or proprietary information. Building rapport and trust with interviewees increases the likelihood of cooperation and openness in the research process. Qualitative data on the music industry capitalizes on the collective expertise of industry insiders. The complexity of the music industry can be better explained through qualitative data. Many studies of the music industry rely on qualitative data for greater depth of analysis (i.e. Gordon, 2015; Leyshon et al., 2005; Rogers, 2013; Wikström, 2009a). The previous study on which this research is based (Galuszka, 2015) employed a similar qualitative methodology. Studies of market structure and competition frequently rely on empirical data, obtained from surveys of managers (i.e. Bloodgood and Bauerschmidt, 2002) or through analysis of financial data (i.e. Powers, 2001). This study is exploratory in nature. A qualitative approach provides a strong foundation for future quantitative investigations.

Qualitative interviews were conducted with representatives from digital music aggregator companies. Before each interview, participants were sent an informed consent form explaining the scope and objective of this study. All participants were guaranteed confidentiality during the informed consent process. None of the participants interviewed exercised their right to confidentiality. Consequently, some identifying information appears throughout the remainder of this paper. An effort was made to obscure the connection between interviewees and the companies they represented. See appendix A for a list of the participants interviewed.

Aggregators were initially contacted between January and February, 2016 via email through the main company websites. Twelve firms were contacted, six replied, and

representatives from four aggregator companies were interviewed. Follow up attempts were made in March, 2016.

The author conducted six interviews with aggregator representatives between January and March 2016. Representatives from FUGA, Phonofile, CD Baby, and TuneCore were interviewed. Two interviews were conducted over the phone, two via skype, and three on-location at an aggregator's headquarters. Each interview lasted roughly one hour and were recorded for later transcription and analysis. All interviewees held upper management positions including, C.E.O, vice-president of marketing, vice-president of development, executive director, label manager, aggregation manager.

To ensure data were collected in a systematic, methodical manner, interview questions were prepared in advance to address research questions. The majority of questions were open-ended to allow interviewees to elaborate on concepts. Each interview was structured into three sections. Participants were asked about the products and services offered by their aggregators, the firms they perceived to be competitors, partnerships and mergers that have occurred in recent years. In addition to the themes identified for study, additional themes emerged during the course of interviewing representatives. Those themes, non-exclusive catalogs, catalog based distribution, and transparency in the music industry, are discussed in chapter five.

Recorded interviews were transcribed in Microsoft Word and analyzed for themes. Qualitative observational analysis was performed to identify variable outlined above. Excerpts from interviews relating to variables of study were placed into a framework from which was developed the strategic groupings listed below as well as results answering research questions.

To collect data on aggregators that were not interviewed during this study, data were gathered from aggregator websites and business index data. Business index data on aggregators were gathered from music industry trade press outlets *Music Business Worldwide*, *Billboard*, and *Hypebot*. The websites of aggregators not interviewed for this study were examined to determine specialization, meaning which types of consumers the aggregator targeted, and price policy, how much they charged for their services.

Chapter 4 - Results

Market Structure

Aggregators occupy the distribution market segment in the music recording industry. As Galuszka (2015) and several interviewees point out, the music business has been replete with intermediaries at various stages of music production chain. Aggregators build technology to serve a function traditionally handled by major labels or distribution companies.

Number of Competitors

RQ1: How many competitors compete in the digital music aggregation industry?

The first market structure variable examined was number of competitors. Competitors were determined according to Galuszka's (2015) definition of a digital music aggregator as a company that bundles the rights to music and delivers them digital to music providers. Table two displays a partial list of competitors in the digital music aggregation industry that fit Galuszka's definition. Competitors in the digital music aggregator industry were obtained by searching the 'approved aggregator' lists from two popular digital music providers, iTunes and Spotify. Table two lists aggregators that constitute the number of competitors in the digital music aggregation industry. The number of competitors are organized into groups based on initial observations, later codified as strategic groups.

Table 2 Number of Competitors in the Digital Music Aggregation Industry

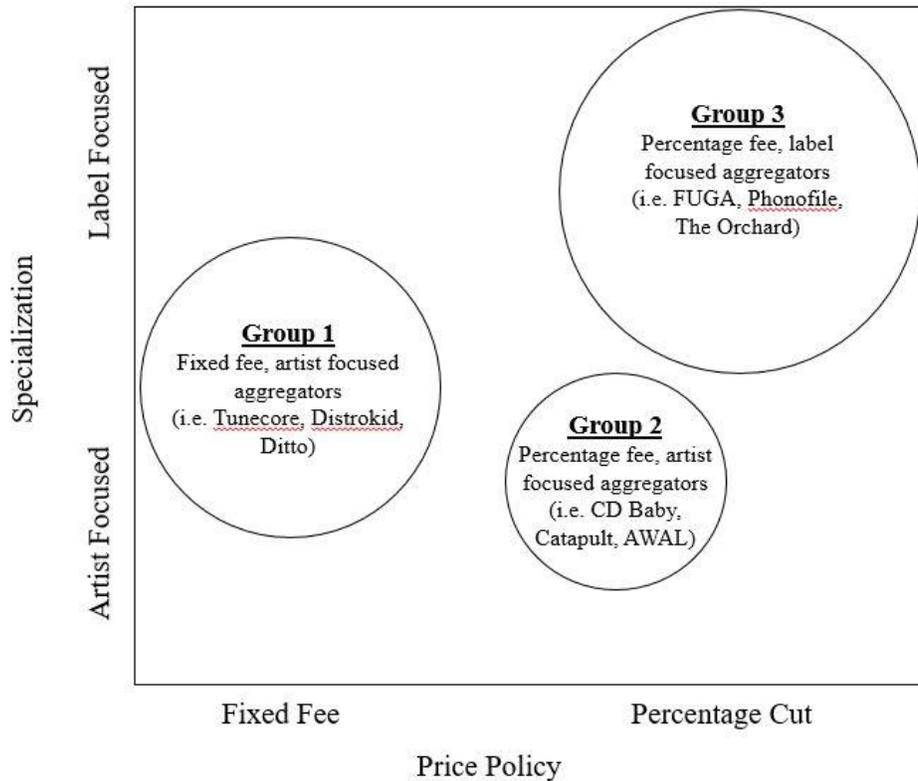
<i>Group 1:</i>	<i>Group 2:</i>	<i>Group 3:</i>
Fixed-fee, artist focused	Percent fee, artist focused	Percent fee, label focused
Tunecore U.S.	OneRPM (U.S.)	FUGA (Netherlands)

Ditto U.S.	Catapult (U.S.)	Phonofile (Norway)
DistroKid U.S.	AWAL (U.K.)	The Orchard (U.S.)
MondoTunes U.K.	CD Baby (U.S.)	Ingrooves/Fontana (U.S.)
Symphonic Distribution U.S.	The State 51 Conspiracy (U.K.)	Believe Digital (Canada)
ReverbNation U.S.		Zebrulation (Germany)
EmuBands U.K.		DRM (New Zealand)
Record Union (Sweden)		Golden Dynamic (China)
Spinnup (Sweden)		Xelon (Australia)
		Qanawat (Dubai)
		Tratore (Brazil)

Strategic Groups

The digital music aggregator market is organized into three strategic groups with some overlap: 1) fixed-fee artist aggregators, percentage-fee artist aggregators; and 3) percentage-fee label aggregators. To eliminate unnecessary repetition, label aggregators are discussed separate from “fixed-fee” and “percentage-fee” artist aggregators. Interviewees indicated that fixed-fee pricy policy meant they charged an annually recurring set price for music distributed. Fixed-fee artist aggregators give artists one-hundred percent of royalties from music distributed. Percentage-fee, on the other hand, refers to aggregators that charge an initial set up fee, followed by taking a nine percent cut of music distributed. Figure four presents a strategic group map of the digital music aggregation industry.

Figure 4 Strategic Groups in the Digital Music Aggregation Industry



Label aggregators use a business model that more closely resembles traditional distributors of the pre-digital age. Label aggregators work with larger catalogs of music and label managers rather than individual artists. By contrast, artist aggregators, like CD Baby and Tunecore, were designed to give artists an entry point to the music industry that does not require labels or record deals. Two dimensions of competitive strategy were used to determine strategic groups. Those two dimensions, specialization, namely specialized target consumer segment, and price policy better illustrate strategic group distinctions. As figure four displays, aggregators such as Tunecore, Distrokid, and Ditto follow an artist-focused, fixed-fee business model grouping them together are likely direct competitors. An interviewee representing Tunecore confirmed that Tunecore’s main competitors were Distrokid and Ditto, based on their similar price policies. Group two, as shown in figure four, includes artist-focused, percentage fee

aggregators such as CD Baby, Catapult, and AWAL Distribution. Group three includes label aggregators that all use a percentage-based fee determined by catalog. As table 2 indicates, label aggregators in group three make up the largest strategic group in the digital music aggregation industry.

Specialization

RQ_{6a}: What strategic groups based on specialization have formed in the digital music aggregation industry?

Label aggregators use a business model that more closely resembles traditional distributors of the pre-digital age. Label aggregators work with larger catalogs of music and label managers rather than artists. A label aggregator representative explained his aggregator has three types of clients: distributors, labels, and artist managers (C. Kröner, personal communication, February, 2016). Distributors are those companies that already have front end distribution, meaning they already have a user-friendly website or application set up to distribute music, such as a digital music retailer. Label aggregators connect with the distributor via XML code, in other words they design their system to communicate digitally with the distributor's system. Therefore, the distributor does not need to log into the aggregator's system. Distributors, the interviewee continued, "might prefer the organization of a label aggregator to a major publishing company," (C. Kröner, personal communication).

According to one interviewee, independent labels and artist managers, on the other hand, do use the aggregator's system for distribution (C. Kröner, personal communication). Independent labels who use aggregators are not necessarily smaller labels. An aggregator with an established base in a Nordic market explained that major Nordic labels distribute through that

aggregator because other distributors might not be as interested in the label's niche catalog, or the label might prefer working with a distributor that knows the Nordic market better (R. Danielsen, personal communication, February 2016).

The third type of client, artist managers, demonstrates aggregators responding to a new market in the music industry. As one interviewee explained, it has become increasingly more likely for established artists to break from their label and distribute their music using aggregators and a smaller team managed by an artist management company (C. Kröner, personal communication, February, 2016). Artist managers can pick and choose services that work best for an individual artist such as distribution, tour booking, and merchandising.

Artist aggregators are more accessible for unsigned artists or artists who are new to the commercial music industry. As one interviewee put it, "a lot of artists still don't know how to get their music out there, especially now because it's so easy to record music," (K. Bruener, personal communication, February 2016). Artist aggregators provide distribution services to well-established artists and completely unknown artists with equanimity.

Artist aggregators overlap with label aggregators by providing services to independent labels as well. One interviewee estimated that around 30% of his aggregator's clients were independent labels, but the distribution platform was designed for independent artists (S. Ackerman, personal communication, March, 2016). In addition, another representative interviewed was the digital promotions and label services manager for an artist aggregator. He explained his role emerged through working with larger clients and independent labels who needed technical solutions that were beyond the normal purview of the aggregator's services (B. Hubbard, personal communication, February 2016).

Price Policy

RQ6b: What strategic groups based on price policy have formed in the digital music aggregation industry?

The amount an aggregator charges for services was revealed to differentiate competitors. As one interviewee put it, “whenever there is a ‘revolution’ in distribution it’s not radically easier or radically more effective... it’s just a different pricing model,” (B. Hubbard, personal communication, February, 2016). Concurrent with prior research (Galuszka, 2015), label aggregators interviewed indicated they charge a variable percentage fee based on the catalog size and artist profiles of each label. One label aggregator representative explained, “we don’t charge fees, we charge a percentage, if [artists] don’t make money we don’t make money.... We don’t dump the price just to be competitive,” (R. Danielsen, personal communication, February, 2016).

The first pricing model, used by label aggregators like Phonofile and FUGA, assesses a variable percentage fee, whereby the aggregator determines a percentage cut based on the size of the label catalog or profile of the artists. A second model, used by artist aggregators like Tunecore and Symphonic Distribution, charges artists an annual time flat-fee for distribution depending on the amount of content to be delivered. A similar model used by artist aggregator DistroKid charges an annual flat-fee irrespective of content. The final model, used by artist aggregator CD Baby, charges a one-time set up fee and then takes a percentage cut of content distributed.

The final element of market structure analyzed here was product differentiation. Product differentiation was determined by examining what products and services were offered by digital music aggregators to answer the second questions.

Products

RQ2a: What products are produced by digital music aggregators?

Differences in products and services offered also highlight the strategic grouping of the digital music aggregation industry. Table 3 indicates the differences in products and services offered by aggregators interviewed. The base product, a platform to digitally distribute music, delivered by both label and artist aggregators are quite similar. Being technology companies, most of the products designed by aggregators are web applications that serve a variety of functions. The principal product of a digital music aggregator is the digital platform through which independent artists and labels can distribute music. A digital platform is software that facilitates the uploading, coding, and distribution of music by connecting clients with vendors and retailers. The aggregators interviewed for this study each designed their own digital platforms for distribution and took pride in the fact that their platforms were built from scratch by a team of in-house developers. An interviewee in charge of development for an artist aggregator explained that building the distribution platform in-house is integral to building a competent system. “If the core competency of a company is the technology, you should not outsource it,” (S. Williams, personal communication, February 2016).

In addition to distributing music to online retailers and collecting revenues, distribution platforms organize meta data for clients and retailers. Meta data are pieces of information embedded within a file that, among other things, can tie a song back to its creators and publishers such as songwriters’ names, publishing societies, and unique product codes that help identify music. Meta data are also used to match songs with other songs for intuitive playlists or song recommendations such as are offered by Pandora Internet Radio, Spotify, or Apple Music. One interviewee mentioned that his aggregator had been collecting more information than needed for

many years before meta data became so widely used by streaming services and music vendors (K. Bruener, personal communication, February 2016).

Table 3 Aggregator Products and Services

	Label Aggregators		Artist Aggregators	
Clients	FUGA	Phonofile	CD Baby	Tunecore
Services	Digital distribution	Digital distribution	Digital distribution	Digital distribution
	Promotions/marketing	Promotion/marketing	Physical distribution	Physical distribution
	Accounting analytics	Trending data	Publishing administration	Publishing administration
	YouTube monetization	Accounting analytics	YouTube monetization	YouTube monetization
		Digital music store	Audio mastering	Audio mastering
			Web design	Web design
			Digital music store	
Product	Digital distribution platform	Digital distribution platform	Digital distribution platform	Digital distribution platform
	XML web platform		Multi-channel network	Multi-channel network
	White label	Trending playlist analysis		

Differences emerged between market segments in the platform features. For example, label aggregators partner with distributors, many of whom have constructed their own front-end interface. Distributors do not need aggregators to build a digital platform for user interface. A

label aggregator representative discussed a neighboring rights solution his aggregator was building that helps keep track of music distributed through multiple entry points.

One of the label aggregators interviewed built a product called a ‘white label’ for managers. Using a white label, independent labels contracting with that aggregator can use the aggregator’s technology to create and customize their own distribution package. As table three illustrates, Phonofile, a label aggregator, saw an opportunity to capitalize on part of a code used by a major streaming music service. With this relatively unused code, the aggregator developers built a product to track when artists’ songs are trending by way of playlists. “Our analytics team saw a code from Spotify and thought this was a code we could use because it can track playlists... We imported it, it works, and is amazing,” (R. Danielsen, personal communication, February, 2016).

In addition to the distribution platform, aggregators have built a range of additional products designed to help artists and managers. YouTube has become prime digital real estate for artists and content creators to make money through advertising placement and subscribers. Interviewees from CD Baby and Tunecore mentioned their multi-channel network (MCN) platforms that help artists capitalize on YouTube content. As one interviewee explained, an artist may have several YouTube channels all generating revenue. A single band, for example, could have a main YouTube page for releases and music videos, a YouTube page dedicated to cover songs, two other pages for side projects, and a page for a video blog. Using an MCN, the artist can log into a central hub from which they can manage content across all their YouTube channels, they can edit multiple videos across multiple channels to promote new content, and they have tools to help itemize payments from their channels (S. Williams, personal communication, February, 2016).

Taken altogether, the products offered by some artist aggregators can mirror the kinds of products offered to artists by a record label. One interviewee explained his aggregator was trying to create a one-stop-shop for artists, noting, “We’d like to integrate all of these artist tools into the [aggregator] system so artists can take money that is accumulated in their account and put it toward additional services,” S. Ackerman, personal communication, March, 2016)

Services

RQ2b: What services are offered by digital music aggregators?

Services offered make up a second dimension of product differentiation. Label aggregators provide services to meet their clients’ distribution needs and track revenue flows. Unlike artist aggregators, who may have thousands of individual clients, label aggregators can devote more attention to their smaller pool of clients. Representatives from both label aggregators interviewed explained that they maintain frequent contact with labels to determine which priority releases should get the most attention, how to work with marketing campaigns, and to discuss any new vendors or digital service providers with whom a label would like to do business.

Making connections between retailers and labels is an important intermediary function that label aggregators serve. As one interviewee recounted, if a client in a niche market wants content delivered to a digital music store that other distributors do not deliver to, perhaps one that is so small other distributors does not think it worthwhile to pursue, the aggregator can negotiate directly with that retailer on behalf of the label. The distributor can then go in and negotiate the terms of service with the label after the aggregator has set up a digital distribution deal. “Other aggregators need to set up an aggregation deal... we connect with stores as an

aggregator and have about 70 deals that we use among 300 stores,” (C. Kröner, personal communication, February, 2016).

Another service provided by label aggregators is delivering data analytics to label managers so they can focus on working with artists. Labels with catalogs of music, even relatively smaller clients, must track revenue stream data from numerous entry points for an abundance of assets (i.e. artists, albums, singles). By condensing and transferring data from one point of access, label aggregators reduce managerial burdens for labels. “It’s an easier way for our labels to work and not have to sit for three weeks and crunch numbers on our reports,” (R. Danielsen, personal communication, February, 2016). As another label aggregator representative explained, “lots of clients don’t want to receive statements from every retailer around the world... it’s a lot of handling,” (C. Kröner, personal communication, February, 2016).

Label aggregators can also help with marketing campaigns by providing trending data and getting better placement for priority releases. One interviewee explained how his aggregator helps labels market their artists by making use of trending data. “If we have music on a popular playlist you might get fifty to sixty thousand streams per week... we combine this with marketing, let’s say Google AdWords, and help lead fans to the artist’s landing page,” (R. Danielsen, personal communication).

Distribution services offered by artist aggregators vary according to the digital music vendors with which an aggregator partners. The full number of partners ranges from ninety to over two hundred among artist aggregators. The two interviewed here each partner with around ninety. Representatives from the two artist aggregators interviewed mentioned they are constantly working to add new partners. Major digital music vendors, such as iTunes, Google Play, or Spotify, are standard to artist aggregators. Niche vendors or markets in different countries are

more likely to vary between artist aggregators. Unlike label aggregators, artist aggregators need to set up broad aggregation deals that apply to their whole catalog, making it more difficult to provide content to more niche music providers.

As noted above, artists must register their music with a publishing society to manage royalty collection. The model process of aggregation displayed in Figure 1 shows the publishers or collection societies as separate entities in the aggregation process. Interviews detailed aggregator publishing administration services that allow artists to register their music and track royalties during the aggregation process. Both artist aggregators interviewed, CD Baby and Tunecore, offer publishing administration services to register music as part of the distribution process.

Additionally CD Baby and Tunecore both offer physical manufacturing services to artists who want to create professional CDs, DVDs, or vinyl records (though vinyl is exclusive to CD Baby). Through partnership with LANDR, a company that provides automated mastering of raw studio tracks, CD Baby and Tunecore can integrate track mastering services with their core distribution services. Both companies also provide services to help artists design graphics or merchandise, promote music, and take advantage of auxiliary revenue streams. As mentioned by an artist aggregator representative, “we hope artists choose us because they trust us and they can get everything they need from us,” (S. Ackerman, personal communication, March, 2016).

Competition

The overall impression of competition in the digital music aggregation industry is not one of intense rivalry. Label and artist aggregators both explained they work to market their products, but ultimately are selected for best meeting clients’ needs. As one representative explained, “being friends with our competitors is a good thing, this makes sense for us both to go to bat for

artists,” (K. Bruener, personal communication, February, 2016). In that vein, if an artist or label chooses to break with one aggregator in favor of another aggregator or distributor, there is typically no aggressive campaign to get that artist or label back. A label aggregator representative recounted the story of a large label that had split with the aggregator in favor of a major publishing company only to return to the aggregator around the time of the interview.

Interviewees in both segments indicated they are aware of their competition but generally do not take strategic cues from competitors. When asked whether his aggregator modeled its strategies off of its competitors, one interviewee gave the following response:

I’m proud to say, no. I think we’re the innovator, we’ve been at the forefront, we kept our model we haven’t changed our price, we have some competitors that are cheaper than us but we like to think that artists come to [our aggregator] because they’re passionate about being successful and we can help them do that. We’re on our own mission. We always look at our competitors, we have to do that, but we’re moving forward on our own platform and our mission has remained the same. (S. Ackerman, personal communication, March, 2016)

A label aggregator representative explained that his team did examine how traditional competitors operated and determined they did *not* want to be like those competitors. A second aggregator representative reflected that they spend more of their time focusing on improving their own business and listening to the needs of their labels than going out and spying on others.

The third and fourth research questions assessed two variables of competitive strategy, market commonality and resource similarity, derived from Chen’s (1996) framework of competitor analysis (see fig 2 above).

Market Commonality

RQ3: How much market commonality exists among firms in the digital music aggregation industry?

The label aggregator market segment sees a high degree of market commonality with other distribution and publishing companies. Namely, they are both working to distribute large catalogs of content and provide the best technical solutions for their clients. Artist aggregators have a higher degree of overlap with other digital distributors and content aggregators. One interviewee compared his aggregator to the popular online merchandise aggregator ‘Etsy’. “They have a retail site where you can buy stuff, they have thousands of vendors that supply the stuff, and they need to pay out all of those vendors,” (S. Williams, personal communication, February 2016).

Geographic market presence is another area of market commonality. All four of the aggregators interviewed are multi-national companies that provide services to clients around the world. The two label aggregators interviewed work with niche clients in their home regions as well as major international music markets like the U.S. and Europe. New markets, most notably Asia, were indicated to be of interest to these aggregators but they are not making the same kinds of moves as major labels to establish a presence. Representatives from both aggregators discussed the importance of having a physical presence in key markets like the UK or Brazil, while not campaigning to open offices around the world.

The two artist aggregators interviewed are both aggressively working to expand their services beyond the US and European markets into untapped markets like Latin America and Asia. Interviewees from both aggregators explained that having their websites ‘localized’ to key

markets, meaning translated into the native language, using the local currency, and spotlighting local content, are key initiatives.

As aggregators, particularly artist aggregators, expand their range of services, they increase the amount of overlap with other markets in the music business. One interviewee explained, “there have been many kinds of similar programs... now there are all kinds of music marketing companies, managers, booking managers... doing [what we do],” (B. Hubbird, personal communication, February, 2016). Slight overlap creates only tangential competition in overlapping markets, however some extra features promoted by aggregators are gaining traction in their respective markets.

One of the artist aggregators interviewed offers the same distribution platform for independent authors to self-publish books. This service, which applies the same core technology to a different segment of retailers, attracts a similar niche clientele of authors who, “have some asset they want to distribute [through] a download service that collects a small percentage of the distribution fees,” S. Williams, personal communication, February, 2016). An interviewee also mentioned that his aggregator also offered the same services for independent filmmakers at one time until it was deemed unviable and discontinued.

Resource Similarity

RQ4: To what similar resources do firms in the digital music aggregation industry have access?

For tech companies whose primary assets are digital, resources are derived from an aggregator’s core technology and service partnerships. The competency of an aggregators’ digital distribution platform can be judged, for example, by the strength of the code behind the

scenes, the ease of access for clients, or the ability to communicate well with other companies' application program interfaces (APIs). Beyond the core technology, service partnerships, like those mentioned above, give certain aggregators' resourced-based advantages by offering clients mastering, managerial, and marketing solutions.

Resources also include the economies of scale an aggregator commands. After being acquired by DiscMakers, a well-established physical CD and vinyl record manufacturer, in 2008, CD Baby gained the resource advantage of DiscMakers' physical distribution factories. The prohibitive startup investment required for a competitor to invest in a similar manufacturing facility gave CD Baby an advantage in the physical distribution space. Moreover, CD Baby was able to capitalize on DiscMakers' existing distribution network and client base, extending their reach among clients who previously worked with the physical distributor but had yet to foray into digital distribution.

In addition, suppliers' resources give some aggregators strategic advantage over competitors. Artist aggregators that partner with more distributors, like Symphonic Distribution who boasts over three-hundred digital service providers (DSPs) around the world, offer clients a broader range of distribution than other aggregators who partner with fewer DSPs.

Buyers' resources, on the other hand, can impact the bargaining power prominent clients or labels have with aggregators (Galuszka, 2015). Examples of resource abundant buyers are large independent or major labels with a very valuable catalog to distribute or well-known artists with enough fan-base or celebrity to demand attention. As noted above, label aggregators typically determine their percentage fee based on label catalog or artist clout. In cases where the aggregator is dealing with a more prestigious client, that client will have superior bargaining power to smaller labels or lesser-known artists. Artist aggregators interviewed explained that

they generally charge the same fees regardless of client status, though one interviewee noted his aggregator often waves the set-up fees for featured clients.

Rivalry

RQ5: Which firms are competitive rivals in the digital music aggregation industry?

The fifth research question asked who were main rivals in the digital music aggregation industry. Label aggregators compete with each other and interviewees affirmed that they do not compete with artist-focused aggregators. In terms of competing with each other, one interviewee explained he only considered label aggregators that have similar pricing models and technology as direct competitors. In other words, those label aggregators that charged different percentages or used different technology to distribute music might not pose any competitive threat.

Regarding competing with other entities in the music recording industry, namely major labels, one interviewee said he considered his firm too small to be on the radar of any major label or publisher. Another label aggregator, however, representative argued his firm *did* compete with the majors remarking, “are major labels our competitor? Absolutely. When artists see that there is a company that has a good set up and distribution network, they go with an independent aggregator,” (R. Danielsen, personal communication, 2016).

The representatives from the two artist aggregators interviewed indicated they did and did not see the other as a major competitor. Both are well-known players in the digital distribution market and offer a wide, yet similar array of services. However, as noted above, they each operate with different business models and present clients a different value proposition. That value proposition may mean different things to different artists. If an artist has a large catalog of music that is only being purchased or streamed occasionally a one-time set up fee and small

percentage fee per distribution might seem like the best option. However, if an artist has one or two albums that are prominently featured and frequently downloaded, a flat annual fee and no percentage cut makes the most sense.

Rivalry between the two aggregators is perhaps best evinced by the services each offers. Both firms started offering publishing administration around the same time, both offer a range design and promotion services, both offer mixing and mastering services, and both offer web design and digital marketing services. Even so, just as with label aggregators, representatives explained they consider other aggregators who have the same pricing model to be main rivals.

Chapter 5 - Discussion

The market structure of digital music aggregators is composed of two distinct segments each within the distribution market segment of the music recording industry. Label aggregators work with distributors, independent labels, and artist managers to distribute catalogs of music, while artist aggregators typically apply a standardized distribution model to independent artists. A standardized distribution model means the fees charged and services offered do not vary depending on the artist or label with whom an aggregator is working. Services offered by aggregators vary from managerial, such as accounting or data analytics, to artist-oriented, including multi-channel system and web-design. Core product similarity, namely the distribution platform each aggregator develops, distinguishes digital music aggregators as a unique market in the music recording industry.

Aggregator competitive strategies revolve around the price point and value proposition of services. Competitive rivalry among aggregators is generally less intense than in other areas of the music recording industry. Aggregators interviewed expressed ambivalence toward their competitors, while taking pride in following their own vision. Aggregators compete for territory in international music markets as well as in several artist services submarkets.

Key findings from this study organize the aggregation market into strategic groups, modify previous research on the aggregation process, and provides insight on the current competitive strategy employed by aggregators. The three strategic aggregator groups shown in figure four explain how two companies ostensibly in the same market, such as artist aggregators CD Baby and Tunecore, may not consider each other to be direct competitors. The strategic grouping emphasizes specialization and price policy as strong competitive partitions in the aggregation industry.

The aggregation process model now includes artist managers as an aggregator client, separates artist aggregators from label aggregators and considers aggregators that include publishing administration services (see figure 5). The model illustrates that independent artists are typically the only consumer segment who benefit from aggregator publishing administration services. Labels and artist managers generally have their own publishing deals worked out with collection societies or publishing companies.

Figure 5 Modified Digital Music Aggregation Process Model

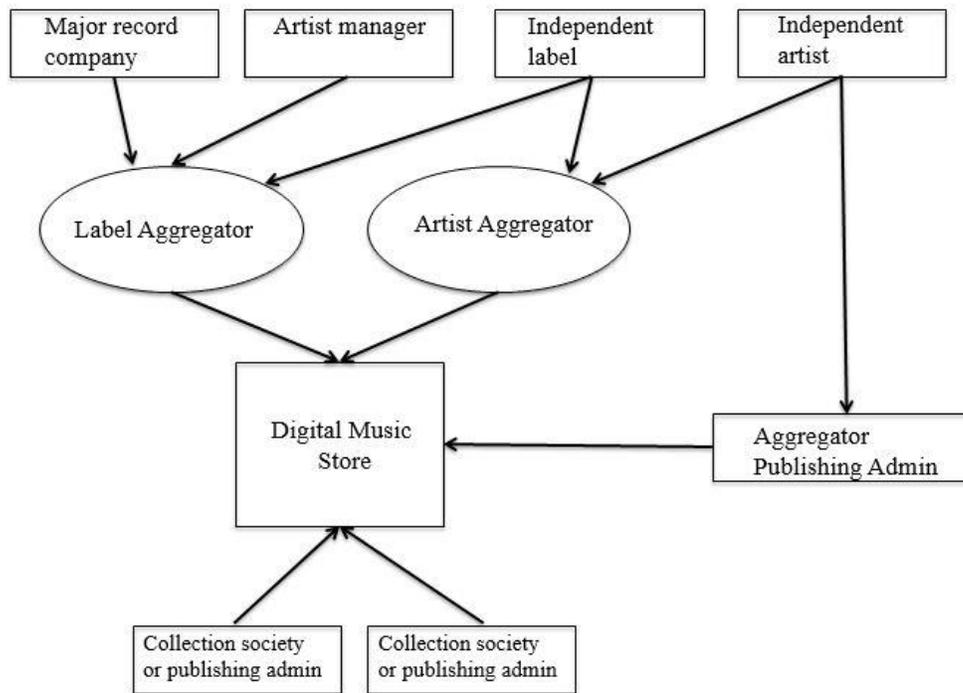


Figure five illustrates the four types of clients that use the two types of aggregators discussed in this study Major record companies, artist managers, and independent labels all use label aggregator services. Independent artists use artist aggregator services and can access publishing administration services, such as those offered by CD Baby and Tunecore.

The competitive strategies of aggregators reflect an unusual ethos in the music industry. For-profit businesses are loath to lose paying customers, especially if their former client chooses

to leave for a direct competitor. Interviewees from label and artist aggregators explained that they work with or refer consumers to competitors if they offer the consumer a better deal. If an independent artist or label trying to select an aggregator, representatives from the aggregator endeavor to find a solution that works best for them. For example, an independent artist with a small number of releases that are being downloaded frequently would be better off choosing an aggregator that charges an annual fee and gives artists one-hundred percent of royalties. Similarly, a label in a niche music market, such as Saudi Arabia or Thailand, would be more satisfied with an aggregator that can set up aggregation deals with digital music providers in their home country.

In addition, during the process of gathering data for this study, additional themes were uncovered that merit discussion and future consideration. Interviewees mentioned the advantage of non-exclusive contracts in the digital music aggregation industry. Moreover, interviewees noted that aggregation models drive a catalog-centric view of music, rather than hit-obsessed interpretation of music. Finally, and perhaps most importantly to the future of the music business, each interviewee indicated aggregators are pushing for greater transparency in the music industry.

Non-Exclusivity

Exclusive contracts are a key tool for labels to market artists as part of the label's brand. The exclusivity model makes sense when labels are investing time and resources into the development of an artist. The 360-degree deal described above, where an artist signs the rights to all aspects of their promotion and distribution, is the epitome of exclusivity. These deals are not without merit. Labels offer artists a vast arsenal of specialized skills and experience in return for the artist delivering content exclusively to the label (Galuszka and Wyrzykowska, 2016). While

these types of deals are designed to foment trust and interdependency between labels and artists, exclusivity breeds contempt if ever a dispute should arise between the artist and label. Countless horror stories are told in the music business of artists signing record deals with a major label only to later become dissatisfied with the label and find themselves trapped by an exclusivity clause forcing them to stay (Gordon, 2015).

Aggregators offer an alternative to the traditional exclusivity by giving artists and labels the option to partner with other distributors or break with the aggregator should a better opportunity arise. On the label side, independent labels have the option to partner with one aggregator to distribute certain content to certain retailers. As noted earlier, one of the label aggregators interviewed actively partners with their competitors. Non-exclusive contracts are appealing to artists who are in a developmental phase of their career. As one interviewee put it, “[our aggregator] is a fertile launch pad, not all artists go from [our aggregator] to a major label, but they self-release with us, then go to a small indie label, then a large indie, and one day get signed by a major,” (B. Hubbird, personal communication, February 2016).

Non-exclusive contracts give artists and labels more freedom to choose what will work best for them at varying stages of their career. That freedom may work to the detriment of aggregators if they lose an artist to a major label or another distributor at the apex of their career. Even so, aggregators acknowledge the benefits of working with artists and labels when the relationship is conducive to both parties and the benefits of splitting when the time is right. As one interviewee put it, “Some artists would call in and I would say I would love for you to stay with us but if there is something that is not right fit it’s not going to work and they are not going to like us anyway,” (K. Bruener, personal communication 2016).

Catalog vs. Hits

The traditional music industry developed a time-sensitive, hit-driven ecosystem. Labels put real pressure on artists to market the release of a new album or single. Once a certain amount of time had passed, the commercial viability of a release dropped exponentially. As noted above, aggregators still want artists to market their releases and perform well, but the pressure is much different in a digital environment. One interviewee offered the following insight on this dynamic:

“The traditional music industry thinks in release cycles. After six months, if an album isn’t doing well it’s dead. We’re at a place in the music business where there is no shelf life. They couldn’t have an album sitting there that was two years old when there was new music that could take its place. We see artists that have an album that is three years old and suddenly it gets a placement in a TV show and now they’re selling lots of albums. We’ve gotten to a point where music is timeless,” K. Bruener, personal communication, February, 2016).

For major labels consumed by quarterly financial benchmarks and Billboard top 40 lists, there is no place for the hobbyist musician or the nostalgic. It makes no financial sense to invest time or money in someone who is not ‘serious’ about making music a career. But for those creative individuals who have taken to YouTube or Soundcloud *en masse*, aggregators offer an appealing compromise between sharing music with friends and family and not quitting the day job.

Transparency

In an age where data are availability to monitor transactions down to hundredths of a cent and digital security can protect rights to online content using encryption technology, it is no

surprise that a growing theme in the music industry is the importance of transparency. Music advocacy groups like the Future of Music Coalition and the Rethink Music Initiative publish reports on the state of transparency in the music industry and many tech companies are furiously developing new technology to facilitate better transparency in the music industry; aggregators among them.

Transparency was a recurring theme among each interview conducted. Creating technology to collect, analyze, and relay data was an integral part of the platforms built by aggregators interviewed. As one interviewee explained:

Every royalty we collect we one on one move through and give to each of our clients. We show them what we received... this is what we will take and this is what you will get.

What the label does with the artist we cannot influence but the more clarity we bring we hope the labels bring the same clarity. The key to a transparent business is making the data available. C. Kröner, personal communication, February, 2016.

Part of the challenge with digital music and transparency is tracking down millions of micro-transactions from thousands of revenue streams and ensuring all the money makes it back to rights owners and publishers. An illustrative example of this problem is the recently settled lawsuit launched against streaming giant Spotify alleging that millions of dollars of royalties were not making it back to artists.

An artist aggregator representative described the active role they assume in tracking down artists who have unclaimed royalties waiting for them. "It's almost like we're a private investigator, we're sending them emails or postcards if they don't have email to get people their money," S. Williams, personal communication, February, 2016).

Resistance to Oligopoly

One final point of discussion is the ostensible resistance to ‘oligopolization’ aggregators have thus far demonstrated. At the time of writing, there are enough competitors, none of whom command a dominant share of the market as a whole, to suggest this market is not an oligopoly. The fact that the music aggregation industry is of yet not an oligopoly is significant because, as noted, cultural industries are drawn toward concentration and conglomeration (Hesmondhalgh, 2013) as are media industries and copyright industries (Picard, 2005; Wikström, 2009b). Regardless of interpretation, the digital music aggregation industry, as part of the music industry, should be drawn by that gravitational pull.

Qualitative evidence compiled here suggests that may be happening. Mergers among label aggregators and artist aggregators in the past ten years suggest the market is getting smaller and managers are recognizing the benefits of conglomeration. Interestingly, however, while some interviewees mentioned they view the majors as competitors, at the time of writing only one aggregator is a wholly owned subsidiary of a major label. It will be interesting to see the responses from major labels as aggregators build up more clout among the indies. If history is any indicator, aggregators may find themselves faced with the same wave of ‘re-oligopolization’ by the majors as were countless indie labels between 1960-1990 (Lopes, 1992).

Limitations and future directions

Factors that limit this study are the number of interviews collected and the unavailability of economic market data. The generalizability of this study is limited by sample size of interviews. Requests were sent out to a total of fourteen label and artist aggregators in the U.S. and E.U. but only four are featured here. Due to time constraints, this research proceeded with the six interviews conducted, however this project is ongoing and more attempts will be made to

contact additional aggregators. Moreover, the author was able to visit one of the aggregators featured in this research and conduct more interviews than with the three other aggregators interviewed. This study was conducted with limited access to financial resources. No quarterly or annual performance reports were purchased or requisitioned for this study. Finally, at the time of writing none of the aggregators studied here were traded on any public stock market. As such, data typically collected for analysis of market structure and competition, such as concentration, IPO, shareholders, or share price, were necessarily omitted.

Four future directions are envisaged for subsequent studies. First and most apparent, future studies should employ empirical analyses of economic data as more becomes available. For example, if or when aggregators become publically traded, follow up studies can conduct analysis of concentration using measures such as the Herfindahl-Hirschman index or the four firm concentration ratio (CR4). Secondly, future studies should scrutinize the contracts and licensing agreements used by aggregators from a legal standpoint. As mentioned above, copyright and intellectual property law has been very fluid and subject to rapid change in the past two decades. A legal exploration of aggregators may help illuminate the strengths and weaknesses of aggregator negotiating power in comparison to traditional distributors or labels. Third, future studies should consider other independent distribution models used by self-incorporated labels and innovative artists. Artists in developing music markets without access to aggregators, or artists who are dissatisfied with aggregator services may still find means to distribute music globally using the Internet. These circuitous means of distribution may eventually present the same challenge to aggregators as free consumption of music via piracy once did to music retailers.

Finally, future studies should investigate how aggregators are preparing for the future as a new generation of tech-savvy individuals begins to better understand how the technology that drives aggregators works. Aggregators must not only prepare for future waves of competition, but also future permutations of their own market structure. If the industry becomes more consolidated through mergers or acquisitions, aggregators must strive to continue offering the same quality of products and services that make them so valuable to independent artists today.

Concluding Remarks

Seated somewhere behind Kanye West and Taylor Swift at the 2016 Grammy awards were sixteen auspicious independent artists living the dream. They made it all the way to a Grammy nomination without the help of a major label or (hopefully) a deal with the devil. These fortunate souls, one of whom won the Grammy for best new age album (Billboard, 2016, February 15), arrived at the zenith of musical success in America with practice, practice, practice, and a digital music aggregator.

The growth and development of aggregators signifies an ongoing shift in the music recording industry. The music industry has proven its resilience in the past century. Just as piracy could not kill the music industry, the proliferation of aggregators does not spell out the death of the majors or the music establishment. Aggregators are reinforcing the promise of the Internet to help content creators share their content with global communities. To be sure, aggregators are not providing these services to aggregators free of charge out of the goodness of their hearts. There are many ways for artists to share and promote their music online without paying anyone a percentage or flat fee. However, as one interviewee related, “the music industry has been an industry for lots of middlemen... [but] it has been a closed book,” (C. Kröner, personal

communication, February, 2016). Aggregators are doing their part to crack that book open, but as the aggregation industry continues to mature, managers must be wary of their role and not fall into step with the all-too-familiar models in the music industry of profiteering off the backs of musicians.

In a passing remark, one interviewee mentioned it was somewhat surprising that no major label thus far had made an attempt to buyout an aggregator. One explanation is that majors already have distribution networks in place. It is, however, a bit strange that companies so highly vertically integrated, in an industry they dominate completely would not make moves to include this popular distribution system into their production line. History suggests that future of the aggregation industry as an autonomous branch in music distribution depends on labels continuing to rely on their in-house distribution systems. As soon as labels begin buying up popular aggregators, it will not be long before aggregation begins to resemble its parent industry, being highly concentrated by major conglomerates.

There will doubtlessly arise more technological innovations in the future that will simplify music distribution for up-and-coming artists. For the time being, however, aggregators are providing an invaluable service to independent artists, helping them bring their music from the garage, to the entire digital world, to maybe one day even the Grammys.

References

- Afuah, A. (2001). Dynamic boundaries of the firm: Are firms better off being vertically integrated in the face of a technological change? *Academy of Management Journal*, 44(6), 1211-1228.
- Ahrens, S. & Kreidenweiss, A. (2012). Industry-wide business model innovation: The case of the Swedish music industry. (Master's Thesis, Stockholm School of Economics). , 1-93.
- Alexander, P. J. (1994). Entry barriers, release behavior, and multi-product firms in the music recording industry. *Review of Industrial Organization*, 9, 85-98.
- Alexander, P.J. (2002). Market structure of the domestic music recording industry, 1890-1988. *Historical Methods*, 35(3), 129-132.
- Anand, N., & Peterson, R. A. (2000). When market information constitutes fields: Sense making of markets in the commercial music industry. *Organization Science*, 11(3), 270-284.
- Andersen, B., & Frenz, M. (2010). Don't blame the P2P file-sharers: The impact of free music downloads on the purchase of music CDs in Canada. *Journal of Evolutionary Economics*, 20, 715-740.
- Bain, J. S. (1968). *Industrial organization* (2nd ed.). New York: Wiley.
- Bakker, P. (2012). Aggregation, content farms and Huffinization: The rise of low-pay and no-pay journalism. *Journalism Practice*, 6(5-6), 627-637
- Barney, J.B. & Hoskinsson, R.E. (1990). Strategic groups Untested assertion and research proposals. *Managerial and Decision Economics*, 11, 187-198.
- Bloodgood, J. M., & Bauerschmidt, A. (2002). Competitive analysis: Do managers accurately compare their firms to competitors? *Journal of Managerial Issues*, 14(4), 418-434.

- Billboard. (2016, February 15). Grammy awards 2016: See the full winners list. Retrieved from: <http://www.billboard.com/articles/news/grammys/6875260/grammy-awards-2016-full-winners-list>
- Bockstedt, J. C., Kauffman, R. J., & Riggins, F. J. (2006). The move to artist-led online music distribution: A theory-based assessment and prospects for structural changes in the digital music market. *International Journal of Electronic Commerce*, 10(3), 7-38.
- Borja, K., Dieringer, S., Daw, J. (2015). The effect of music streaming services on music piracy among college students. *Computers in Human Behavior*, 45, 69-76.
- Borreau, M., Gensollen, M., Moreau, F., & Waelbroeck, P. (2013). Selling less of more? the impact of digitization on record companies. *Journal of Cultural Economics*, 37, 327-346.
- Caves, R. (1987). *American industry: Structure, conduct, and performance* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Cesareo, L., & Pastore, A. (2014). Consumers' attitude and behavior towards online music piracy and subscription-based services. *Journal of Consumer Marketing*, 31(6/7), 515-525.
- Chan-Olmsted, S. M. (2004). Introduction: Traditional media and the internet: The search for viable business models. *The International Journal on Media Management*, 5(1&2), 2-3.
- Chan-Olmsted, S. M., & Chang, B. H. (2003). Diversification strategy of global media conglomerates: Examining its pattern and determinants. *Journal of Media Economics*, 16(4), 213-233.
- Chen, M. J. (1996). Competitor analysis and interfirm rivalry: Toward a theoretical integration. *Academy of Management Review*, 21(1), 100-134.
- Drew, R. (2005). Mixed blessings: The commercial mix and the future of music aggregation. *Popular Music and Society*, 28(4), 533-551.

- Evans, S. K. (2015). Defining distinctiveness: The connections between organizational identity, competition, and strategy in public radio organizations. *International Journal of Business Communication*, 52(1), 42-67.
- Fonseca, M. A., & Normann, H. T. (2012). Explicit vs. tacit collusion: The impact of communication in oligopoly experiments. *European Economic Review*, 56, 1759-1772.
- Galuszka, P. (2015). Music aggregators and intermediation of the digital music market. *International Journal of Communication*, 9, 254-273.
- Galuszka, P. & Wyrzykowska, K.M. (2016). Running a record label when records don't sell anymore: Empirical evidence from Poland. *Popular Music*, 35(1), 23-40.
- Ghoshal, S., & Westney, D. E. (1991). Organizing competitor analysis. *Strategic Management Journal*, 12(1), 17-31.
- Gibbons, M. (2014). Newspaper quality, content and competition in New Zealand. *Pacific Journalism Review*, 20(1), 181-199.
- Gordon, S. (2015). *The future of the music business: How to succeed with the new digital technologies* (4th ed.). Milwaukee, WI: Hal Leonard Books.
- Hesmondhalgh, D. (2013). *The cultural industries* (3rd ed.). Thousand Oaks, CA: Sage.
- Hollander, S. (2011). Listen to the music: Lessons for publishers from record labels' digital debut decade. *Publisher Relations Quarterly*, 27, 26-36.
- Hougaard, J.L. & Tvede, M. (2010). Selling digital music: Business models for public goods. *Netnomics*, 11, 85-102.
- iTunes (2016). Music partner search. Retrieved from:
<https://itunespartner.apple.com/en/music/partnersearch>

- Jung, J., & Chan-Olmsted, S. M. (2005). Impacts of media conglomerates' dual diversification on financial performance. *Journal of Media Economics*, 18(3), 183-202.
- Lacy, S., & Davenport, L. (1994). Daily newspaper market structure, concentration, and competition. *The Journal of Media Economics*, 7(3), 33-46.
- Leurdijk, A., & Nieuwenhuis, O. (2011). Media and content industry: Music case study. *TNO Innovation for Life*, 1-30.
- Leyshon, A., Webb, P., French, S., Thrift, N., & Crewe, L. (2005). On the reproduction of the musical economy after the internet. *Media, Culture & Society*, 27, 177-209.
- Li, S. C. S., & Chiang, C. C. (2009). Market competition and programming diversity: A study on the TV market in Taiwan. *Journal of Media Economics*, 14(2), 105-119.
- Lopes, P. D. (1992). Innovation and diversity in the popular music industry, 1969-1990. *American Sociological Review*, 57(1), 56-71.
- Moreau, F. (2013). The disruptive nature of digitization: The case of the recorded music industry. *International Journal of Arts Management*, 15(2), 18-31.
- Oba, G., & Chan-Olmsted, S. M. (2006). Self-dealing or market transaction? An exploratory study of vertical integration in the U.S. television syndication market. *Journal of Media Economics*, 19(2), 99-118.
- Park, M. H., & Mason, J. B. (1990). Toward an integrated model of determinants of business performance. *Research in Marketing*, 10, 157-201.
- Pelham, A. M., & Wilson, D. T. (1996). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of small-firm performance. *Journal of the Academy of Marketing Science*, 24(1), 27-43.

- Picard, R. G. (1988). Measuring concentration in the daily newspaper industry. *The Journal of Media Economics*, 1, 61-74.
- Picard, R. G. (2004). A note on economic losses due to piracy theft, infringement, and piracy of protected works. *Journal of Media Economics*, 17(3), 207-217.
- Picard, R. G. (2005). Unique characteristics and business dynamics of media products. *Journal of Media Business Studies*, 2(2), 61-69.
- Picard, R. G., & Toivonen, T. E. (2004). Issues in assessment of the economic impact of copyright. *Review of Economic Research on Copyright Issues*, 1(1), 20-29.
- Piolatto, A., & Schuett, F. (2012). Music piracy: A case of "the rich get richer and the poor get poorer". *Information Economics and Policy*, 24, 30-39.
- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York, NY: Free Press.
- Porter, M. E. (1981). The contributions of industrial organization to strategic management. *The Academy of Management Review*, 6(4), 609-620.
- Power, D., & Hallencruetz, D. (2007). Competitiveness, local production systems, and global commodity chains in the music industry: Entering the U.S. market. *Regional Studies*, 41(3), 377-389.
- Powers, A. (2001). Toward monopolistic competition in U.S. local television news. *The Journal of Media Economics*, 14(2), 77-86.
- Rogers, J. (2013). *The death and life of the music industry in the digital age*. London: Bloomsbury Academic.
- Smethers, J.S. & Jolliffe, L.B. (2000). Singing and selling seeds: The live music era on rural Midwestern radio stations. *Journalism History*, 26 (2), 61-70.

- Stigler, G. J. (1964). A theory of oligopoly. *The Journal of Political Economy*, 72(1), 44-61.
- Thomson, K. (2013). Roles, revenue, and responsibilities: The changing nature of being a working musician. *Work and Occupation*, 40(4), 514-525.
- Tushman, M.L. & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31(3), 439-465.
- Upson, J. W., Ketchen, D. J., Connelly, B. L., & Ranft, A. L. (2012). Competitor analysis and foothold moves. *Academy of Management Journal*, 55(1), 93-110.
- Vaccaro, V.L. & Cohn, D.Y. (2004). The evolution of business models and marketing strategies in the music industry. *International Journal on Media Management*, 6(1&2), 46-58.
- Waldfoegel, J. (2010). Music file sharing and sales displacement in the iTunes era. *Information Economics and Policy*, 22, 306-314.
- Wall, T. (2013). *Studying popular music culture* (2nd ed.). London: Sage.
- Weaver, A. (2012). Aggravated with aggregators: Can international copyright law help save the newsroom? *Emory International Law Review*, 26, 1161-1201.
- Weijters, B., Goedertier, F., & Verstreken, S. (2014). Online music consumption in today's technological context: Putting the influence of ethics in perspective. *Journal of Business Ethics*, 124, 537-550.
- Wikström, P. (2009a). The adaptive behavior of music firms: A music industry feedback model. *Journal of Media Business Studies*, 6(2), 67-96.
- Wikström, P. (2009b). *The music industry*. Malden, MA: Polity Press.
- Wirth, M., & Bloch, H. (1995). Industrial organization theory and media industry analysis. *Journal of Media Economics*, 8(2), 15-26.

- Yeung, H.W. (1995). Qualitative personal interviews in international business research: Some lessons from a study of Hong Kong transnational corporations. *International Business Review*, 4(3), 313-339.
- Young, D. P. T. (2000). Modeling media markets: How important is market structure. *The Journal of Media Economics*, 13(1), 27-44.
- Zenter, A. (2006). Measuring the effects of file sharing on music purchases. *Journal of Law and Economics*, 49(1), 63-90.

Appendix A - List of Interviews

- February 3, 2016: Christiaan Kröner, Director of Aggregation Services
- February 18, 2016: Rune Danielsen, Head of Label Relations
- February 23, 2016: Kevin Bruener, Vice President of Marketing
- February 24, 2016: Scott Williams, Vice President of Development
- February 24, 2016: Ben Hubbird, Director of Digital Promotions and Label Relations
- March 10, 2016: Scott Ackerman, Chief Executive Officer